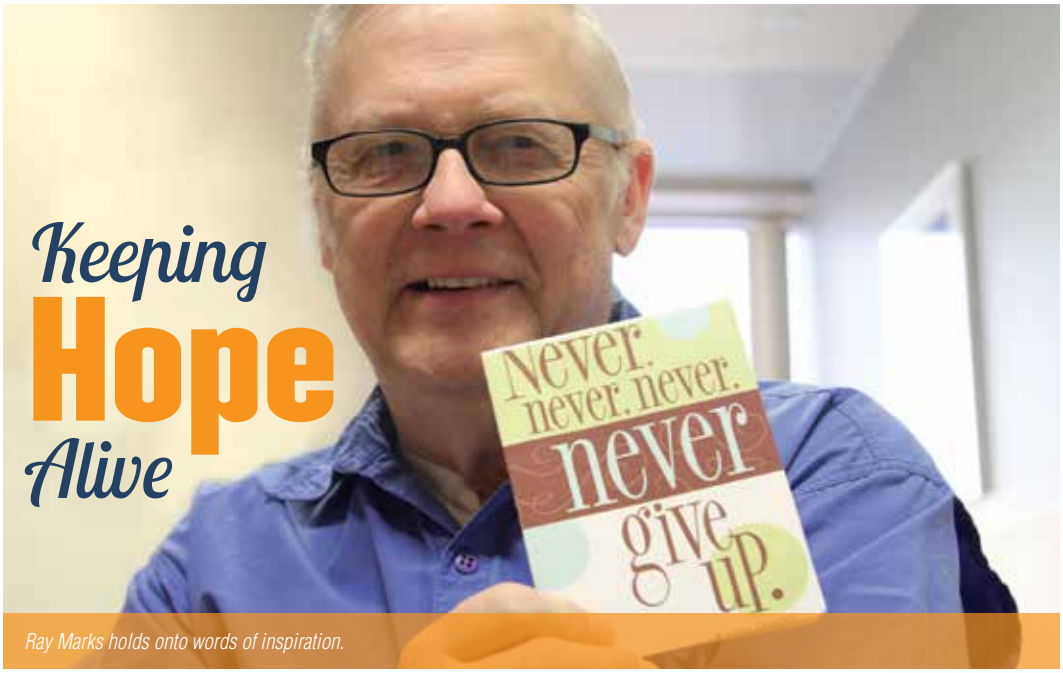
Roswell Results!

Spring 2014



Ray Marks holds onto words of inspiration.

Keeping Hope Alive

What's Inside

Dr. Elizabeth Griffiths is treating Ray Marks for Myelodyplastic Syndrome (MDS), a rare disease that affects 20,000 people in the U.S. each year.

It began with three words: "You have cancer." But Ray Marks hopes to end it with five.

"Never, never, never give up," the eminent words of Winston Churchill are prominently displayed on a card that he keeps in his hospital room. When times get tough during his 30-day stay at Roswell Park, it's these words, Ray says, that will keep him going.

Before Ray knew he had a rare cancer, let alone needed to undergo a stem cell transplant, he spent his time teaching at Medaille College and volunteering with veterans. After a long career in the news industry (he was the news director at WGR 550AM and WBEN 930AM and former WIVB, Channel 4 news producer), he was ready to enjoy life and give back to the community. Cancer wasn't in his plans.

But when he wasn't feeling well during August of 2013, he decided to go to the doctor. The visit and a few blood samples revealed the cause of Ray's symptoms: myelodyplastic syndrome (MDS), a disease that affects 20,000 in the U.S. annually.

"At first when I was diagnosed, I said, 'Why me?' But then I immediately said, "Why not me?" Ray recalled. "I am not a 'feel sorry for myself' type of person."

Elizabeth Griffiths, MD, a member of the Leukemia Division in the Department of Medicine at Roswell Park, is Ray's doctor. MDS, she said, is a disease of bone marrow failure to work normally. The symptoms include fatigue, easy bruising or bleeding and infection, although many people have no symptoms at the time of diagnosis. Many MDS patients, like Ray, are diagnosed as a result of abnormalities in blood work.

"A person can be exposed to something that causes MDS years or decades before the disease shows up," Dr. Griffiths said. "Because it is so rare, cancer screening and prevention are not feasible."

Dr. Griffiths treated Ray with chemotherapy prior to his admission to the hospital for a stem cell transplant – his biggest hope for survival. A stem cell transplant, also known as a bone marrow transplant, involves medication to deplete the patient's own bone marrow stem cells, followed by the infusion, or injection, of healthy stem cells from a related or unrelated donor. The new stem cells home to the bone marrow and should replace damaged or diseased stem cells.

"A stem cell transplant looks very much like a blood transfusion when it is given, but the infusion of cells is only part of the procedure," said Dr. Griffiths. "Patients can expect to be hospitalized for at least 30 days around the time of the transplant."

The first five to seven days, patients receive chemotherapy and or radiation to deplete their own bone marrow stem cells, afterward new stem cells are given as an infusion, Dr. Griffiths said. Following the stem cell infusion, patients stay in the hospital until the body begins making red cells, white cells and platelets.

What is a stem cell transplant?

A stem cell transplant is the infusion or injection of healthy stem cells into the body to replace damaged or diseased stem cells.

(continued on back page)

ROSWELL PARK CANCER INSTITUTE

THE CENTER FOR Personalized MEDICINE

Genetic Testing: One Family's Journey

Suzanne Pilon

Suzanne Pilon was worried. Her 19-year-old daughter, Shauna, had swelling in her neck and doctors were having trouble determining the cause. They said it was clearly thyroid related, possibly cancer, but a diagnosis wasn't coming fast enough. Suzanne, a teacher at QUEST Elementary School in Hilton, NY, shared her worries with a co-worker who recommended she call Roswell Park Cancer Institute (RPCI). Suzanne made an appointment and RPCI's Hassan Arshad, MD, a head and neck cancer surgeon, confirmed their worst fears: thyroid cancer.

"While her diagnosis was frightening, we were relieved Roswell could see us so quickly and to finally have some answers," said Suzanne. "We now had a course of action. We scheduled her surgery right away. Little did we know that this was just the beginning of a family journey we could never have imagined."

While Shauna's surgery was a success, the pathologist, Mihai Merzianu, MD, took note that her tumor was unusual, a rare form of papillary thyroid cancer known to be associated with a genetic condition called familial adenomatous polyposis (FAP). Individuals with FAP can develop hundreds or even thousands of precancerous colon polyps, and if not recognized and treated, there is almost a 100 percent chance that a person will develop colorectal cancer. There is also an increased chance of developing cancer in the stomach and/or small intestines and an increased risk of other cancers. The association of FAP to Shauna's type of thyroid cancer meant that Shauna could also have FAP and a higher-than-average risk of getting other cancers.

> "While we have all experienced highs and lows throughout this journey, understanding our genetics has empowered us to be proactive. We are thankful for every single day."

"We were scared to death. We couldn't wrap our brains around what was happening or what this all meant," said Suzanne. "Thankfully, Dr. Arshad recommended that we go for a genetic consultation to sort things out."

The Clinical Genetics Service at RPCI was established to meet the needs of individuals at high risk for hereditary cancer syndromes based on their personal and/or family histories of cancer. This program is comprised of professionals who provide individuals and their families with a comprehensive, personalized cancer risk evaluation. Counseling includes constructing a genetic pedigree (family tree), evaluating the risk for cancer and facilitating and interpreting genetic testing.

(continued on page 3)

(continued from page 2)

"Our Genetic Counselor June Mikkelson was very compassionate and patient. No matter how many times we asked the same questions, she was there for us," said Suzanne. "Together, we reviewed the incidence of cancer in our family tree and completed a thorough family questionnaire. She also educated us about genetic testing which started with Shauna. I was also tested and so were my three other children."

The family tree and questionnaire showed no family history of FAP, but genetic testing revealed Suzanne and all four of her children had FAP. "I felt sad and responsible and June really helped me through those feelings," said Suzanne. "I am so grateful to her. I now see that it isn't my fault and that I did not do anything to cause this."

Suzanne and her four children are now armed with the knowledge that they all have FAP. "Yes it has been a tough road but if this wasn't discovered the results would have been tragic," said Suzanne. "While we have all experienced highs and lows throughout this journey, understanding our genetics has empowered us to be proactive. We are thankful for every single day. Our diagnosis is a moment-to-moment reminder to live for each day and enjoy life. There is something very freeing about that."

Now that they are aware, Suzanne, Shauna and Suzanne's other three children, Siobhan, 25, Conor, 22 and C.J., 16, are taking a combination of cancer-prevention measures including prophylactic surgery and more frequent screening. Suzanne is also keeping up-to-date on new treatments and drugs.

"Not many people know about FAP. I find myself having to explain it to people," said Suzanne. "But on a recent visit to Roswell, I met a Hospitality Room volunteer who was warm and kind and we got to chatting. When I told her that we are an FAP family, she got tears in her eyes and told me that her young son was just diagnosed with the same thing. She hugged me and in that moment we were like kindred spirits."

Suzanne said they talked about finding ways to help other families like hers, maybe starting a support group, making a difference. Somehow, she said, there is a silver lining in this.

Genetic testing—yes or no? Look for red flags in your family tree

Genetic testing is not for everyone: only about five to 10 percent of all cancers are linked to gene mutations passed on through the family. But when red flags suggest that you might have a higher-than-average risk of getting cancer, the benefits of testing can swing the balance. If it turns out that you do have an elevated risk, that risk can be managed through cancer-prevention measures (drugs or surgery) or more frequent screening to catch the disease earlier if it does develop.

So how do you decide? Mollie Hutton, MS, CGC, Certified Genetic Counselor at Roswell Park Cancer Institute (RPCI), describes the red flags to look for in your family's medical history.

Look at how many of your relatives have had cancer. It is important to assess three generations in a family when evaluating for hereditary cancer risk. Most important are first-degree relatives (parents, brothers or sisters and children) and then second-degree relatives (grandparents, aunts/uncles, nieces/nephews and grandchildren).

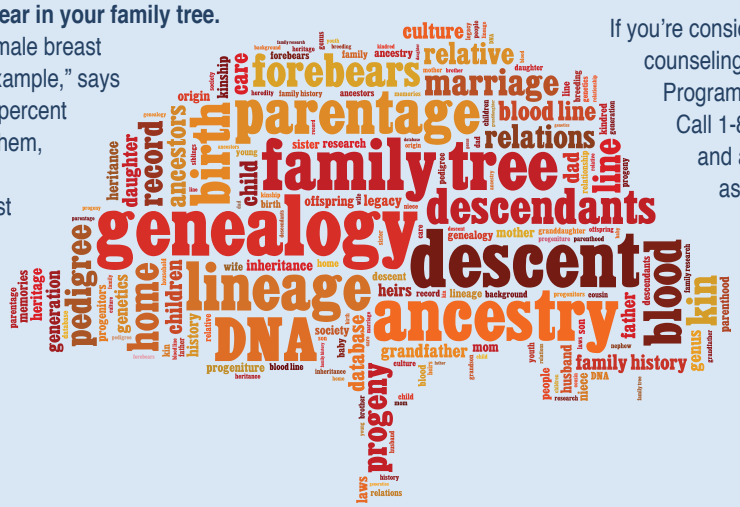
Look at what types of cancer appear in your family tree. "We look for rare types of cancer—male breast cancer, ovarian or pancreatic, for example," says Hutton. "Those affect less than two percent of the population, so when we see them, it raises a concern. We also look at cancers that cluster together—breast and ovarian cancer, or colon and uterine, for example."

Look at each person's age at the time of diagnosis. "It's not unusual to see people diagnosed with cancer in their 60s or 70s," notes Hutton, "but people in their 30s and 40s is not what we expect. In general, a diagnosis before the age of 50 is considered early onset, and those get big red flags for a genetics consideration."

Look at where your ancestors come from. "We know that certain ethnic groups are at slightly higher risk for certain cancer syndromes," says Hutton. "For example, we know that people of Ashkenazi Jewish ancestry have a higher risk to have a genetic factor associated with their breast cancer."

If you decide to undergo testing—or if you were tested in the past—remember that the answers you get today may be different from the answers you'll get a year or more down the road.

"We're just beginning to identify inherited gene mutations that raise the risk of cancer," says Hutton. "As further research reveals new links, your risk profile will change, so your personal and family history should be reassessed periodically in light of this new information."



If you're considering genetics testing and counseling, RPCI's Cancer Information Program can help you with the first step. Call 1-877-ASK-RPCI (1-877-275-7724) and an information specialist will assist you in completing a brief genetics questionnaire over the phone. RPCI's clinical genetic counselors will review your answers and let you know whether testing might benefit you and your family.

“I heard many times that I was going to one of the the best sarcoma doctors in the country, **so I knew I’d be in good hands.**”

Tom Furlani, cancer survivor

Chip In FOR Carly’s Club®

Register today for Chip In for Carly’s Club, a unique golf marathon that challenges participants to play 100 holes of golf all in one day.

This year’s event will take place on **July 14 at the Transit Valley Country Club.** Golfers collect pledges to benefit pediatric cancer research and year-round, patient support programs through Carly’s Club at Roswell Park Cancer Institute.

Learn more at

ChipInforCarlysClub.org.

Improving Care for our Youngest Patients with Cancer and Blood Disorders

Brett Struble, 5, RPCI patient.

Since the 1950s, Roswell Park Cancer Institute (RPCI), in collaboration with Women and Children’s Hospital of Buffalo, has been committed to providing cutting-edge, family-centered and highly personalized care to children and young adults with cancer and blood diseases. Inpatient and outpatient services are provided at both institutions with the decision on where to treat children based on their age and diagnosis. This long-standing collaborative Pediatric Hematology Oncology Program will now be transformed through a new initiative focused on our youngest patients.

Roswell Park and Children’s Hospital are working together to make the Pediatric Hematology Oncology Program one of the top in the nation, and further enhance the treatment and research programs available for children and their families who face these most challenging diseases.

“This is a once-in-a-lifetime opportunity to refine our care in ways that will meaningfully impact young patients and their families,” said Martin Brecher, MD, Chair, Department of Pediatrics at Roswell Park, Chief of Hematology/Oncology Division at Children’s Hospital and Waldemar J. Kaminski Chair in Pediatrics.

With the construction of the new John R. Oishei Children’s Hospital, duplication of services will be eliminated. All inpatient services, inpatient beds, critical care and surgery will be provided at the new John R. Oishei Children’s Hospital when it opens in 2016. Roswell Park will provide all outpatient services including chemotherapy, infusion services and radiation therapy.

Children and young adults will receive their care from the same expert team of physicians and nurses who provide their care currently. This model leverages the strengths of both hospitals to provide the very best care for children with cancer and serious blood disorders all under the clinical direction of the Pediatric Hematology and Oncology Division of Roswell Park in collaboration with Oishei Children’s Hospital and University at Buffalo faculty. Convenient indoor bridges will connect Roswell Park’s Outpatient Center to Oishei Children’s Hospital’s Inpatient Unit on the growing Buffalo Niagara Medical Campus. A fundraising campaign has been launched to secure the necessary donations for this initiative.

The Pediatric Hematology Oncology Program will benefit from improved coordination of care and state-of-the-art facilities. Even more exciting will be the ability to provide blood and marrow transplants and new high-dose therapies to children under the age of four. These children and their families will no longer need to travel out of the area and away from friends and family to receive these life-saving treatments.

“A unified children’s hospital will offer all the hematology oncology services in one location, and can only benefit our patients and strengthen our program,” said Lynda Beaupin, MD, Pediatric Oncology.

You can help ensure that in addition to providing outstanding care now, there will be an even better future for children in Western New York. **To provide a donation to support this campaign, please contact Linda Kahn at linda.kahn@roswell park.org or 716-845-7606.**

Researchers Launch Study Focused on Improving Survival Rates for Women with Breast Cancer

One in eight women in the U.S. will develop breast cancer over the course of her lifetime. While caucasian women are more likely to get breast cancer, African American women are more likely to be diagnosed at a later stage, have larger tumors with more aggressive characteristics, and are more likely to die from breast cancer.

Not only do African American women have worse outcomes for breast cancer, they are also more likely to be obese. A study conducted by the Centers for Disease Control (CDC) compared obesity rates among different races and found that African Americans had a 51 percent higher obesity rate than whites (Hispanics had a 21 percent higher obesity rate than whites).

What's the connection? **Obesity can complicate breast cancer treatment.** Obesity and related conditions, such as hypertension, Type II diabetes and asthma, which are all more common among African Americans, may lead to more breast cancer deaths as well as deaths due to other causes.

Two Roswell Park Cancer Institute (RPCI) doctors, Christine Ambrosone, PhD, Professor of Oncology, and Chair of the Department of Cancer Prevention and Control, and Chi-Chen Hong, PhD, Assistant Member of the Department of Cancer Prevention and Control, are researching the factors that effect quality of life, as well as breast cancer recurrence and survival, among African American women. The doctors are building upon work being conducted in a study of breast cancer survivors at RPCI, and a case-control study to understand the causes of breast cancer in African American women.

The research is focused on three areas in relation to breast cancer in African American women: obesity, other health conditions caused by obesity and effective management of those illnesses. A number of biomarkers (factors that can be measured in blood) will be studied as the researchers try to understand the biological basis for some of the effects of obesity on breast cancer outcomes.

"Optimal management of conditions such as hypertension, Type II Diabetes and asthma may be an overlooked yet critically important aspect of care among breast cancer patients," explained Dr. Ambrosone. "Additionally, research on obesity-related medications may demonstrate how those medications, such as Metformin or statins, could affect breast cancer outcomes in a positive way."

This research could lead to a breakthrough in the relationship between obesity-related illnesses and its effect on breast cancer treatment, as well as improving quality-of-life and survival rates for women with breast cancer.

Recently, Drs. Ambrosone and Hong received a grant from the Breast Cancer Research Fund (BCRF) to help fund their research. The doctors were among 200 scientists and researchers who received funding from the BCRF.

"Since clinical trials testing new therapies for breast cancer patients typically focus on otherwise healthy patients, much of this work is uncharted territory," said Dr. Hong. "It is exciting to think that this research may make a difference in long-term survival of breast cancer patients."


Christine Ambrosone, PhD


Chi-Chen Hong, PhD

Mikhail A. Nikiforov, PhD

RPCI Researchers Discover Novel Mechanism of Tumor Cell Invasion in Melanoma

The most devastating feature of cancer is that it often spreads throughout the human body and forms secondary tumors also known as metastases. One of the most aggressive metastatic cancers with no currently available curative therapy is melanoma, a type of skin cancer that originates from melanocytes, cells that normally make skin tan. Lifetime risk and mortality rates of metastatic melanoma have been steadily increasing for decades.

Formation of metastases largely depends on the ability of tumor cells to grow through surrounding healthy tissues, a process termed invasion. Cell invasion is controlled by a subset of G- proteins, also known as guanosine nucleotide-binding proteins. These proteins could function only when bound to a special molecule, nucleotide guanosine triphosphate (GTP).

In a recent issue of *Cell Reports*, researchers from Roswell Park Cancer Institute (RPCI) and the University of Michigan, Ann Arbor, discovered a previously unrecognized mechanism by which tumor cells regulate activity of G-proteins and invasion. Using cells from metastatic melanoma, researchers led by **Mikhail A. Nikiforov, PhD**, Professor of Oncology and Researcher in the Department of Cell Stress Biology at RPCI, discovered a gene, guanosine monophoshate reductase (GMPR), that mildly inhibits production of GTP in the cell.

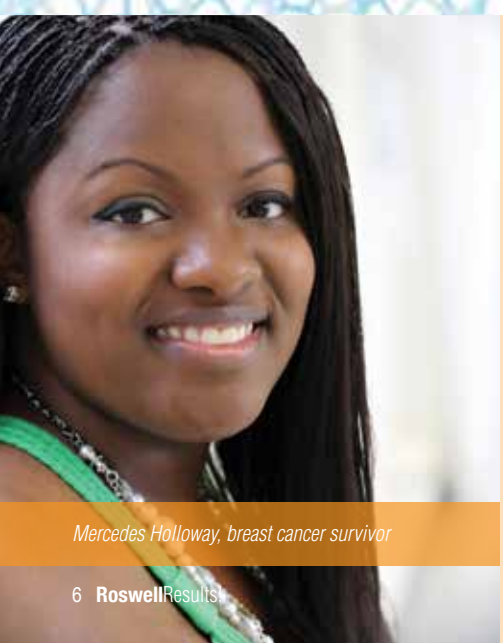
Interestingly, this mild inhibition was sufficient to reduce activity of several G-proteins and, subsequently, invasion. Additionally, Dr. Nikiforov's group demonstrated that invasion of melanoma cells could be regulated by the amounts of guanosine in cell culture media.

"If this is what is occurring in vivo, then we may be able to limit melanoma metastases by regulating guanosine amounts in human body," says the study's first author Joseph Wawrzyniak, a Ph.D. student and Research Affiliate in the Department of Cell Stress Biology at RPCI.

Moreover, the researchers discovered that amounts of GMPR were lower in samples of invasive than non-invasive human melanomas. Why is this important? Currently, there are no diagnostic and/or prognostic molecular markers for melanoma used in clinical settings. This could be exemplified by the fact that, according to *Archives of Pathology & Laboratory Medicine*, a false-negative diagnosis of melanoma was the single most common reason for filing a claim against pathologists between 1998 and 2003.

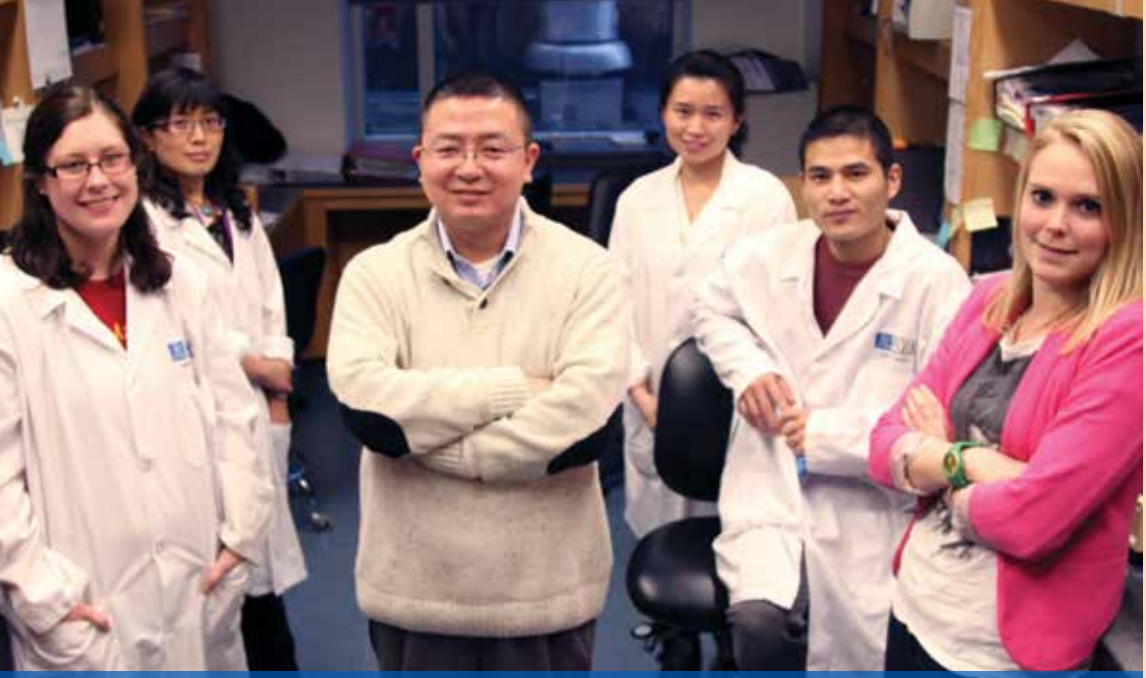
"Since GMPR expression differs between non-invasive and invasive melanomas at very early stages of the disease, this gene has the potential to be developed into diagnostic or prognostic marker," says Dr. Nikiforov. "Accordingly, because of support from the National Cancer Institute, American Cancer Society and most-critically from private donor partners such as the Jennifer Linscott Tietgen Family Foundation, experiments aiming at identification of novel markers for melanoma are currently underway."

> "Because of support from the National Cancer Institute, American Cancer Society and most-critically from private donor partners... experiments aiming at identification of novel markers for melanoma are currently underway."
>
> ~ Mikhail A. Nikiforov, PhD



Mercedes Holloway, breast cancer survivor

> "My surgical oncologist and the comprehensive care I received at Roswell Park were exceptional. My doctor said it was the only place to go, and looking back, I have to agree."



Dr. Zhang (center) and his research team (L to R) Kayla Wilson, Yingwei Li, Nuo Yang, He Shen and Maxime Blijlevens.

Exploring the Role of Sox4 in Muscle Invasive Bladder Cancer

Bladder cancer is the sixth most common malignancy in the United States, accounting for 72,570 new cases and 15,210 deaths in 2013. Tumor metastasis (the spread of cancer to other parts of the body) is the leading cause of mortality associated with cancer, including bladder cancer.

Bladder cancer originates from cells on the inner lining of the bladder wall. One of the distinguishing features of bladder cancer is that it progresses along two pathways that appear to be genetically different from one another: superficial (non-invasive) and muscle-invasive.

Muscle-invasive bladder cancers, which make up 20 percent of bladder tumors, are more aggressive. Approximately half the patients with this type of cancer will progress to metastatic disease. The five-year survival rate for patients who progress is only five percent.

RPCI researcher Jianmin Zhang, PhD, and his team have identified a gene called Sox4 that is highly expressed in muscle invasive bladder cancer cells and believe that this gene could play an important role in tumor metastasis. It has been recently demonstrated that Sox4 is critical for the growth of breast cancer tumors and that Sox4 correlates with poor prognosis in cancer patients.

Thanks to generous donations to RPCI, Dr. Zhang and his team have recently launched a study to further explore the role of Sox4 in bladder cancer, an important first step in obtaining support for a later, larger study to fully tackle this research question.

"We are so grateful for the opportunity to launch this important research study," says Dr. Zhang. "Our findings will allow us to answer important questions about the role of this gene in the spread of bladder cancer and may ultimately lead to more effective diagnosis and treatment."

> "The doctors, nurses and all the staff are so kind, understanding and dedicated. When I look in the mirror, I see one lucky man."

Charles Kreiner, Sr., 94 years old

Eight years after his diagnosis of myelodysplastic syndrome (MDS), a group of conditions in which bone marrow stem cells produce abnormal blood cells, Charles Kreiner, Sr. became the first-ever Roswell Park patient to receive 100 Vidaza treatments. The drug keeps his disease at bay, improving anemia and fatigue, reducing the need for blood transfusions and slowing or stopping the progression to leukemia.

"I'm absolutely delighted with what Roswell Park has done for me," says Charles. "The doctors, nurses and all the staff are so kind, understanding and dedicated. When I look in the mirror, I see one lucky man."

RPCI's DBBR Speeds Cancer Research

Recently, a newly diagnosed cancer patient in an RPCI clinic was invited to make an important contribution to cancer research. The patient said yes. Confetti didn't fly through the air, but that "yes" marked a milestone nonetheless—the enrollment of the 20,000th person in RPCI's Databank and BioRepository (DBBR).

Created 10 years ago, the DBBR is one of the most valuable resources available to cancer researchers at RPCI and other institutions. It preserves blood and other biological samples from cancer patients and healthy volunteers, along with medical, clinical and epidemiological information that may hold important clues about cancer's many mysteries: Why do some people get cancer and others don't? Why do some people respond to certain treatments and others don't?

Established with gifts from individuals and financial support from the Western New York Legislative Delegation, the DBBR is the only facility of its kind in Upstate New York and one of very few to store comprehensive, detailed information from donors.

Even more important, it is one of the few biobanks in the country that collects samples prospectively—before researchers need them—so they are available immediately, which dramatically reduces the time needed to launch a new study. Gregory Ciupak, Scientific Research Project Administrator in Cancer Prevention and Control, explains: "If a scientist wanted to test blood from 200 breast cancer patients for a specific set of biomarkers, traditionally that would require writing and submitting a grant proposal. The proposal would be reviewed and would undergo revisions. Then it would be resubmitted and reviewed a second time, and there might be a chance of getting funded."

"Then the scientist would have to hire and train staff and recruit 200 eligible breast cancer patients to provide samples. It could take three to four years before the scientist would be ready to analyze the data," said Ciupak.

"With the DBBR, the scientist meets with the DBBR directors, outlines the study plan, requests the necessary biospecimens and data from the DBBR, and everything can be ready to go in three to four months, rather than years."

The DBBR provides "easy access to a huge accumulated sample set and information," adds Katerina Gurova, MD, PhD, Cell Stress Biology. "When I tell my colleagues at different institutions, they can't believe it."

Among many other projects, the DBBR has supported research aimed at:

- Identifying biomarkers that could help RPCI researchers create a blood test for ovarian cancer.
- Finding ways of preventing and effectively treating triple-negative breast cancer, an aggressive disease that affects mostly younger women and is more common among African Americans.
- Learning how bone marrow transplants affect the way a patient's body processes vitamin D, which is critical to bone health.

Fortuitously, the DBBR began in 2003, the same year that scientists announced the mapping of the human genome. When RPCI was admitted as an associate member of the New York Genome Center (NYGC) earlier this year, NYGC President and Scientific Director Robert Darnell pointed to the DBBR as "a tremendous resource to learn about genetic origins and new treatments for cancer patients…It will expand the possibilities for important large-scale cancer genomic studies conducted at NYG and with our collaborating member institutions."

"The DBBR will only increase in value over time," says Christine Ambrosone, PhD, Chair of RPCI's Department of Cancer Prevention and Control and Director of the DBBR. "Larger numbers of patients and volunteers allow researchers to address many questions that can be answered only within very large populations."

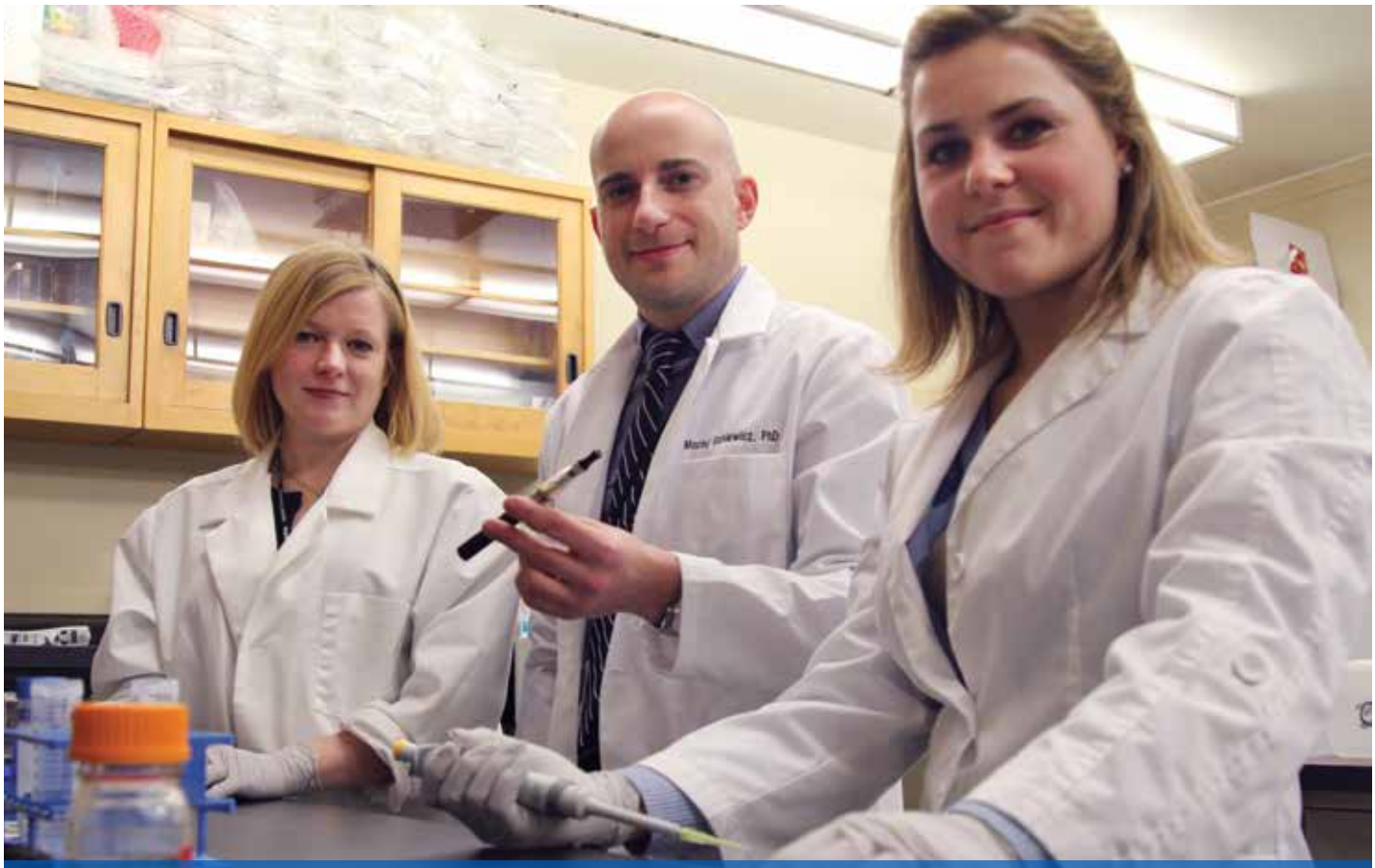
"Additionally, with years of follow-up after initial enrollment, samples and data from patients can be used to hunt for answers to why some therapies work for some patients but not others. This information will lead to treatments that are specific and most effective for individual patients—another step toward personalized medicine."

To Participate:
Healthy participants, especially friends and family of cancer patients, are always needed. Interested? Call the DBBR at 716-845-7774.

To Support:
To make a gift in support of the DBBR, call the Roswell Park Alliance Foundation at 716-845-4391.

The DBBR at a glance:

- Bio samples and information in the DBBR are stored anonymously, with no information that can identify the donor.
- Bio samples are stored in a tank of liquid nitrogen that maintains a temperature of -150 degrees Celsius (-238 degrees Fahrenheit).
- The link between biological samples and the donor's personal health information can reveal how an individual's genetic profile, lifestyle and risk factors may affect the growth and progression of cancer.
- Comparison of bio samples and data from cancer patients and healthy donors may provide information about the causes of certain types of cancer.
- Long-term enrollment goal: 60,000 cancer patients and 10,000 people without cancer.



Left to right: Jennifer Delmerico, Maciej Goniewicz and Lisa Vogl.

Are E-Cigarettes Safe(r)?

Is an e-cigarette really safe, or just safer than a traditional cigarette? That's what one Roswell Park Cancer Institute researcher wants to find out.

The electronic cigarette, or e-cigarette, is a battery-powered device that contains a nicotine-based liquid, often flavored, which is vaporized and inhaled. Many are designed to simulate a cigarette or cigar in their use and appearance. Since the e-cigarette is not regulated, it can be smoked anywhere, including public places. Some studies have shown that the e-cigarette produces fewer toxins than a tobacco cigarette.

But Maciej Goniewicz, PharmD, PhD, Assistant Professor of Oncology in the Department of Health Behavior at Roswell Park isn't sold. An expert in both clinical and community-based research, Dr. Goniewicz and his team are seeking to investigate how effective electronic cigarettes actually are in reducing exposure to dangerous toxins.

He's currently developing a research study to compare levels of nicotine, cancer causing chemicals, and various toxicants in traditional smokers, e-cigarette users, people who use both cigarettes and e-cigarettes and non-smokers. Dr. Goniewicz and his team will collect data from each participant that will provide important information about the use of nicotine-containing products. The study's results may help inform e-cigarette users about safety of the devices.

Did You Know?

- An electronic cigarette can deliver just as much nicotine as a regular cigarette, or sometimes less, depending on the intensity level.
- E-cigarettes may be appealing to children with cartridge flavors such as bubble gum and chocolate.
- The process of using an e-cigarette is called "vaping," not smoking.

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Sign up today and learn more at

BaldForBucks.org

A life dedicated to cancer research

Edwin Mirand, PhD, DSc, RPCI scientist and educator, Chair of the Dr. Roswell Park Society and donor.

As a researcher at RPCI for over 60 years, I have been dedicated to the fight against cancer and to Roswell Park's mission to understand, prevent and cure cancer. I know first hand how important donor dollars are to supporting innovative research that is saving lives.

Yes, strides have been made, but unfortunately there is much more to do. I plan to continue this fight until cures for cancers have been found by providing a legacy gift to the Institute after my lifetime. Research needs to continue—so we can continue to save lives.

Please join me in making a difference by leaving a legacy gift to Roswell Park today.

~Dr. Edwin Mirand

Legacy Giving
The Dr. Roswell Park Society

To learn more, or to notify us of a legacy gift you have planned, please call 716-845-8720 or visit www.RoswellPark.org/Legacy.

ROSWELL PARK CANCER INSTITUTE

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Dunkin' Donuts coupon books are now available for purchase in three-month packs. The three booklets retail for $45, with a total of 93 coupons for free coffee, iced coffee or tea. Fifteen coupons from the books can be used at the Dunkin' Donuts location in the Roswell Park lobby. The three-month supply of coupons can only be purchased in the Gift Shop at Roswell Park. One-year packs are available online at **CupsforRoswell.org**.

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The Ride For Roswell

PRESENTED BY WESTHERR NEW YORK

In his own words:

Joe Sleap Jr. Shares his Story of Healing

My dad was a husband, father, son, brother and friend to all of us; a good man taken way too soon. He was the strongest and bravest man that I have ever known. During his 11-year battle with colon cancer, no matter how sick he felt, my father always wanted to encourage and help others. He did that through The Ride For Roswell, in which he was able to participate four times throughout his illness.

The Ride for Roswell meant a lot to my dad, and so it means a lot to me. I train along the same paths he did, and I ride his bike in his memory. I learned this year that my dad carried a list of names in his back pocket, and during rest stops along the way, he would stop to pray for those people. This past year I followed his example with my own list. Carrying on his traditions allows my family to grieve, heal and celebrate my dad's life.

I recently re-read my father's fundraising letter from 2011 (shown right), his final Ride For Roswell. I believe his words are a reflection of what the event means to all patients, survivors and loved ones of those affected by cancer.

Joe Sleap Jr. at The Ride 2013, riding in honor of his father Joseph Sleap Sr.

May 26, 2011

Dear Family and Friends,

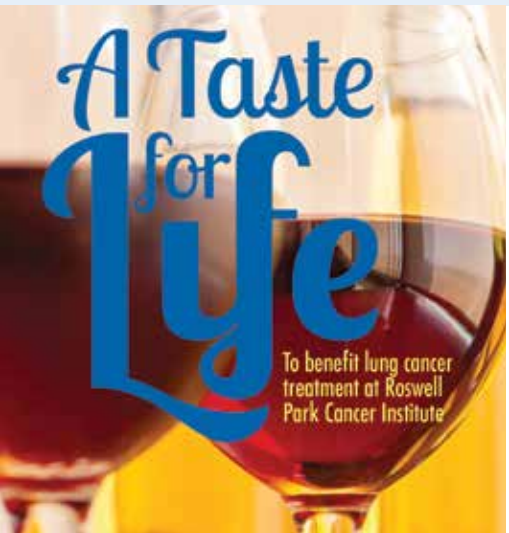
Last year was my third Ride For Roswell, in which I rode my bicycle 46 miles. Thanks to all your donations, I was the 7th highest individual fundraiser out of 7,400 riders.

This year, I am dedicating my ride in loving memory of my mother Joan Sleap, who passed away this April from lung cancer that spread to her brain. Mom had been a five year breast cancer survivor. Up to the very end her example of strength, love and faith always gave me encouragement to continue my battle with cancer.

Currently, I am receiving chemotherapy for colon cancer that has spread to my lungs and bones. After almost ten years of living with this disease, I realize I will never be in remission again but I will continue to fight as long as God allows me to. Participating in The Ride For Roswell is an emotional highlight that brings needed attention to help others and to find a cure.

At age 56, my goal is to ride 56 miles and I hope to raise $5,600. I will ride the first 12 miles in the Peloton and then attempt another 44 miles from UB to Akron and back.

Thank you,
Joseph Sleap Sr.



Wine, Craft Beer and Sweet Treats

Support groundbreaking research to advance lung cancer treatments and therapies at Roswell Park Cancer Institute while enjoying wine, craft beers and sweet treats at A Taste for Life on **May 15, 2014**. Proceeds from the event will enable more patients to receive a promising genetic test for lung cancer developed at RPCI. The test analyzes lung cancer tumor tissue for 14 genes known to be mutated in lung cancer—genes that we can now treat with new targeted drugs. These treatments will be able to focus on specific genetic abnormalities in tumors with fewer side effects. Get your tickets today at **ATasteforLifeBuffalo.com**.

ROSWELL PARK CANCER INSTITUTE
Alliance Foundation

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Get Involved!

Event Dates

May 15
A Taste for Life

June 27
The Ride For Roswell
Opening Ceremony

June 28
The Ride For Roswell

July 14
Chip In for Carly's Club

(continued from cover)

"Once the new stem cells are working well, patients can go home, but have to come to the clinic every day until 100 days after the stem cell infusion," Dr. Griffiths said. "After the first 100 days, patients can come less and less often as long as they don't have any problems."

Ray's initial treatments were tough. He credited a positive attitude and staying mentally busy to getting him through the first rounds of chemotherapy. He also got a little help from his friends.

Hundreds of his friends and colleagues gathered at a benefit for Ray prior to his procedure. Ray describes the benefit as a blessing that gave him renewed energy to fight his battle. And it's these memories Ray will hold close during the difficult moments.

For now, Ray will undergo chemotherapy and radiation to wipe out his immune system. He'll then have stem cells from a 20-year-old female donor transplanted into his body. The hope is that the new stem cells will both kill any of Ray's remaining cancer cells and rebuild his marrow. The entire process takes a month.

Although his stay is long and the procedure daunting, Ray was confident in the care he would receive. He went to get a second opinion at Dana Farber, the cancer center associated with Harvard University, and the doctor there told Ray he would be in good hands at Roswell Park, and would receive the same treatment at either hospital. Peace of mind that he's receiving the best care and keeping hope alive are helping Ray stay positive in his cancer journey.

"It hits you right in the face that life is short. You must embrace life every day," Ray said. "Cancer can happen to anyone. It's not about 'why me?' There is no gain from a negative thought. You need to stay positive, and not live complacently. You must have the will to live."

The Paint Box Project wedding line for 2014 is now available!

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