It Takes TEAMWORK:

Non-Hodgkin's lymphoma took Munson McLeod on a detour. A bone marrow transplant put him back on track.
As a National Cancer Institute (NCI)-designated Comprehensive Cancer Center, Rutgers Cancer Institute of New Jersey already has earned the respect of the global cancer community for upholding the highest standards of conducting cancer research and delivering patient care. Reaching this level of achievement carries with it a great responsibility – not simply to ‘maintain’ these standards but to raise the bar to surpass them. As you’ll learn in this issue, a $10 million anonymous gift was made to launch a Cancer Diagnostics and Therapeutics Program that will be transformative for cancer research and patient care in New Jersey and beyond (page 12). As a partnership between the Cancer Institute of New Jersey, RUCDR Infinite Biologics® within the Human Genetics Institute of New Jersey and Rutgers Department of Genetics, this program will use cutting-edge technology to develop novel cancer treatments by identifying genomic abnormalities in tumor tissue that can be targeted with specific drugs. Such ‘personalized’ therapy is the aim of our precision medicine initiative and is expected to offer additional expertise and treatment options for patients. This partnership brings research and technology directly to patients by bridging two leading institutes within Rutgers University, attesting to success inherent in the integration of the Cancer Institute within Rutgers.

Advancement of cancer research and its impact on patient care is illustrated through such programs as our Blood and Marrow Transplant Program. In anecdotes from our very first transplant recipient and others leading up to our most recent 1,000th case, you will learn how this program – delivered in conjunction with Robert Wood Johnson University Hospital – has evolved since its inception 20 years ago (page 6). You will discover on page 20 how as a teen, Keith Pasichow’s life was changed by a diagnosis of bone cancer. Now an adult, this one-time theater major shifted his focus to become a pediatric hematologist/oncologist, having been inspired by the care he received at the Cancer Institute.

And while some transformations provide immediate effect, others have a lasting impact. Such is the case with a gift from Jewels of Charity that will support an innovative clinical trial initiative at the Cancer Institute (page 25) – and a gift from Rutgers University alums Bernice and Carl Venable will help further advance research opportunities (page 26).

While we continue to raise the bar in the delivery of patient care and propelling next generation research, it is a mission we can only accomplish as a collective. We hope you will continue to join us on this journey.

Sincerely,

Robert S. DiPaola, MD
Director, Rutgers Cancer Institute of New Jersey

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**Rutgers Cancer Institute of New Jersey**

Robert S. DiPaola, MD  
Director

David A. August, MD  
Chief, Surgical Oncology

Joseph R. Bertino, MD  
Chief Scientific Officer

Kevin Coyle  
Chief Financial Officer

Richard Drachman, MD  
Interim Chief, Pediatric Hematology/Oncology

David J. Foran, PhD  
Chief Informatics Officer and Executive Director, Bioinformatics and Computational Imaging

Shridar Ganesan, MD, PhD  
Associate Director for Translational Science

Darlene Gibbon, MD  
Chief, Gynecologic Oncology

Susan Goodin, PharmD  
Executive Director, Statewide Affairs

Bruce G. Haftly, MD  
Chair, Radiation Oncology

Howard L. Kaufman, MD, FACS  
Associate Director for Clinical Science and Chief Surgical Officer

Isaac Yi Kim, MD, PhD  
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Edmund C. Lattime, PhD  
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Sharon Manne, PhD  
Associate Director for Cancer Prevention, Control and Population Science

Lorna Rodriguez, MD, PhD  
Director, Precision Medicine

Karen Shapiro, MBA, MPH  
Director, Operations

Roger Strair, MD, PhD  
Chief, Hematologic Malignancies/Hematopoietic Stem Cell Transplantation

Antoinette M. Stroup, PhD  
Director, New Jersey State Cancer Registry

Linda Tanzer  
Chief Administrative Officer and Associate Director for Administration and Planning

Deborah L. Toppmeyer, MD  
Chief Medical Officer and Chief, Solid Tumor Oncology

Eileen White, PhD  
Associate Director for Basic Science

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"The great thing in this world is not so much where we stand, as in what direction we are moving."

– Oliver Wendell Holmes, Sr. – American Writer

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"The great thing in this world is not so much where we stand, as in what direction we are moving."

– Oliver Wendell Holmes, Sr. – American Writer
It Takes Teamwork
The Blood and Marrow Transplant Program at Rutgers Cancer Institute of New Jersey recently marked its 1,000th procedure. We take a closer look at some of those patients – then and now.
By Maryann Brinley

$10 Million Gift will Enhance Patient Care, Research and Education
An anonymous $10 million gift is helping transform how cancer is targeted and treated.
By Eve Jacobs

Knowledge is Power
When three doctors from the Urologic Oncology Program collaborate on a case of prostate cancer, the patient can only win.
By Maryann Brinley

Life Interrupted
At 15, Keith Pasichow was enjoying summer camp and hanging out with friends. But unusual swelling in his thigh began a journey with cancer that would later lead him to help youngsters on that same path.
By Michele Fisher
Although melanoma patients are at an increased risk of disease recurrence and the development of a second, unrelated melanoma, research from Rutgers Cancer Institute of New Jersey shows that many patients do not perform a regular, thorough self-exam of their skin or sufficiently engage in sun protection behaviors. To address these concerns, Cancer Institute of New Jersey behavioral scientist Elliot J. Coups, PhD (above), will develop and test a web-based behavioral intervention for this group.

“Because melanoma can be detected on the skin, a visual, web-based approach to educating melanoma survivors about disease surveillance strategies is ideal,” notes Dr. Coups, who is also an associate professor of medicine at Rutgers Robert Wood Johnson Medical School.

The intervention will be designed to have the look and feel of an “app” that might be used on a tablet or smartphone and will be tailored towards the individual needs of each patient. It will feature information on how to do regular skin self-exams as well as reminders about sun-safe behaviors. Interactive tasks and quizzes will also be included.

More than 400 melanoma survivors will test the 12-month intervention. The information gained will help refine the tool for a larger-scale evaluation trial. A $2.5 million grant (R01CA 171666) from the National Cancer Institute will support the work.
According to the National Cancer Institute, more than a third of all human cancers, including a high percentage of pancreas, lung and colon cancers, are driven by mutations in a family of genes known as Ras. Ras has long been considered to be a target that does not respond to cancer treating drugs, but recent research suggests new possibilities.

Activation of oncogenic Ras promotes tumor growth but also activates the cellular self-cannibalization process of autophagy that recycles intracellular components to help sustain that growth. Eileen White, PhD (below), associate director for basic science at Rutgers Cancer Institute of New Jersey, and colleagues tested the consequence of removing the autophagy gene ATG7 from laboratory models with non-small-cell lung cancer.

One of the challenges in administering cancer therapy is that the treatment designed to destroy the disease can also have a negative effect on healthy, normal tissue. In this study, investigators found that removal of ATG7 caused loss of fat tissue and sensitivity to fasting, but few other damaging consequences to normal tissue in the short-term. In contrast, switching off autophagy by deleting ATG7 was dramatically destructive to established non-small-cell lung cancers.

“The anti-tumor activity seen in our study occurred prior to the destruction of normal tissue. This suggests that the action of selectively and deliberately blocking the autophagy process may have therapeutic benefit for non-small-cell lung cancer and other Ras-driven cancers,” notes Dr. White, who is also a distinguished professor of molecular biology and biochemistry at Rutgers School of Arts and Sciences.

White and colleagues will work with other collaborators at the Cancer Institute to develop early-phase patient clinical trials based on the findings from this study, which appeared in the June online edition of Cancer Discovery (doi: 10.1158/2159-8290.CD-14-0363).

What’s the Frequency?

As electronic cigarettes (e-cigarettes) become more popular, research shows more defined survey measurements are needed to better identify established users. The classification of ‘current use’ for instance, is considered as any use of the product in the past 30 days. “This definition includes those who experiment with the device just one time and decide not to do so again. They are being counted with those who may use e-cigarettes several times a week or even daily,” says Cristine Delnevo, PhD, MPH, co-leader of the Cancer Prevention and Control Program at Rutgers Cancer Institute of New Jersey, and director for the Center for Tobacco Studies and professor and chair of health education/behavioral science at Rutgers School of Public Health.

In research that appears in the May online edition of American Journal of Preventive Medicine (doi: 10.1016/j.amepre.2014.04.009), Dr. Delnevo and colleagues examined the prevalence of current use, along with ever use and a newly created category of established use. ‘Ever use’ comprised participants who tried e-cigarettes even once. ‘Established users’ were those who used the device more than 50 times in their life and at least once in the past month.

They found that ever use of e-cigarettes is highest among current every day smokers, but former smokers are significantly more likely to be established users of e-cigarettes compared to current every day smokers. The authors say this could suggest that some smokers have successfully used e-cigarettes to quit, but future studies that include better identification of sustained e-cigarette users are needed.

In related research, Michael Steinberg, MD, MPH, FACP, director of the Tobacco Dependence Program (supported by the Cancer Institute of New Jersey, School of Public Health and Rutgers Robert Wood Johnson Medical School) and colleagues from Rutgers and Pennsylvania State University compared e-cigarettes and FDA-approved nicotine inhalers. They asked 38 smokers who had never before used either device to rate each for benefit, harm, appeal, and role in assisting with smoking cessation after using each product for three days. The e-cigarette scored higher in all aspects of perceived satisfaction, had a “cooler” image, and was deemed more helpful in quitting smoking.

With tobacco use cited as a main risk factor in the development of lung cancer and other major illnesses, researchers and clinicians continue to build on tools and therapies that will aid in cessation efforts. But as Dr. Steinberg cautions, regulation of e-cigarettes is still non-existent and there still is not enough data on their safety and efficacy to recommend them as a cessation tool. This study was published in the May online edition of the Journal of General Internal Medicine (doi: 10.1007/s11606-014-2889-7) and was funded by the Cancer Institute (P30CA072720).
Q: What encouraged you to explore a career as an oncology nurse?

A: Kass: My mom is a nurse and used to share stories about her patients and experiences while I was growing up. Coupled with losing my grandmother, grandfather and aunt to cancer, I was inspired to help those with this disease. Berg: I was not actively pursuing a career in oncology but was working in the OB/GYN field and was looking to try something new. I became aware of a position at the Cancer Institute and thought I would give it a try. After eight years of working with breast cancer patients I can say that I truly enjoy working in oncology.

Fischer: I would like to say it was a calling, but when I graduated from nursing school there were few jobs. I was offered a position as a radiation oncology nurse and soon gained a real respect for the profession. I have been doing oncology nursing from floor nursing to research for most of my career and have never regretted it!

Q: What is something unique about your role that you think the average person does not realize?

A: Fischer: It is not all tears and sadness. Many people don’t understand why I do what I do for a living. I just say it is very rewarding and when you make a difference in someone’s day, it makes you feel really great about who you are.

Kass: One might think it is depressing working with cancer patients in the outpatient environment. In fact, I think we are seeing patients at their best. The patient is normally not newly diagnosed so they have a chance to process...
the changes going on in their body. ■ Berg: Most people do not realize that while I see patients in collaboration with the surgeons, I also see many patients independently. This includes new patients with benign breast concerns and abnormal mammograms as well as follow-up breast cancer patients. And on days when the surgeons are in the operating room, I am available to see patients with any post-operative complications that need to be addressed immediately.

Q: What are the challenges and rewards of this field?

A: Berg: The most challenging part of my job is caring for patients that are often anxious and upset after finding out they have breast cancer. This can also be rewarding, because most patients are very thankful for any help that I can provide to them when they are going through such a stressful time. ■ Fischer: A challenge is trying not to get too close to the patient, at which I have failed miserably. I have cried with patients and laughed with them. It is part of who I am. The rewards are when a patient responds to therapy and you are given the gift of experiencing that joy with them. ■ Kass: Differing personalities and stress levels sometimes make it challenging to help patients, but it is quite rewarding when I am able to help them feel calm and “in control” during their treatment. And I do not need to wait for my performance review to know whether I am making a positive impact on patients and their families, as the immediate feedback I receive is its own reward. ■

All three also point out that sometimes it is about holding a hand, giving a hug or some other small act of caring that lets the patient know someone is there for them. They also note success and gratification in their individual roles are not possible without the help of their fellow nurses, as they experience the challenges and rewards of the profession every day together as a ‘family.’

Rutgers Cancer Institute of New Jersey is well known for collaboration resulting in advanced scientific discoveries and innovative new treatment options for cancer patients. But as a recently-invited member of the Big Ten Cancer Research Consortium (BTCRC), the Cancer Institute of New Jersey has a unique opportunity to help develop novel clinical trial opportunities for patients nationwide.

The BTCRC, which fosters scientific collaboration between cancer centers at universities that are part of the Big Ten Conference, has an initial aim of developing novel treatments for genitourinary, gastrointestinal, thoracic and breast cancers. Helping the consortium’s administration and member institutions in carrying out this mission is Susan Goodin, PharmD (right), director of statewide affairs at the Cancer Institute. She was recently appointed to serve as the BTCRC’s Executive Officer.

"Each member institution has its own renowned experts and scientific strengths. Included with that are unique resources such as advanced technologies, biological specimens, clinical data and more. When these unique institutions collaborate through the BTCRC, we can further advance cancer discoveries through clinical trials available at our centers,” notes Dr. Goodin, who is also a professor of medicine at Rutgers Robert Wood Johnson Medical School.

“In an era when targeted cancer therapies are no longer a prediction, but a reality, these elite centers will incorporate their groundbreaking science into novel clinical trials. And by working collaboratively in a consortium environment, we will have the opportunity to elucidate these discoveries rapidly.”

She also notes, as the only BTCRC cancer center in the New York/New Jersey region and as New Jersey’s only National Cancer Institute-designated Comprehensive Cancer Center, the Cancer Institute of New Jersey will provide patients in the region with access to trials developed by the consortium. In addition, certain trials also will be available through the Cancer Institute’s Network of hospitals from across New Jersey.

For more information on clinical trial offerings at Rutgers Cancer Institute of New Jersey, visit cinj.org/clinical-trials and for more information on the BTCRC, visit bigtencrc.org.
Munson McLeod, Sherryann Glasgow, Rick Kamdar and Mark Coville share a survivor’s path not even the most adventurous thrill-seeker would willingly choose. Yet, each looks back on their separate journeys through the Blood and Marrow Transplant Program at Rutgers Cancer Institute of New Jersey and Robert Wood Johnson University Hospital (RWJ) in awe, respectful of where they went and how their lives changed as a result. The best news, of course, is that they are here to tell their cancer stories.

“Our program started in 1995,” explains Roger Strair, MD, PhD, chief of hematologic malignancies and director of the program, “and the very first transplant patient had relapsed non-Hodgkin’s lymphoma. The only potential cure for him was high-dose chemotherapy that would have irreparably destroyed his bone marrow so we removed his bone marrow cells and stored them while he got chemotherapy. After the chemo washed out of his system, we put the bone marrow cells back in and he recovered.” Known as an autologous stem cell transplant, Munson McLeod’s experience was a first for the Cancer Institute of New Jersey and as Dr. Strair says, “He set the right tone.”

BY MARY ANN BRINLEY
The Blood and Marrow Transplant team treated its 1,000th patient recently. “This by itself is amazing. It speaks to the camaraderie and collaborative nature of all the people here. You can’t do it by the books. There has to be flexibility and exceptional dedication to treat these patients,” says Roger Strair, MD, PhD (center), with Jacqueline Manago, RN, BSN, OCN (left), and Mary Kate McGrath, MSN, RN, APN-C (right).
The university-wide, multi-disciplinary team of surgeons, oncologists, nurses, scientists, transplant coordinators and social workers (See box, “Who's Who” on page 11) — many who have been with the program from the beginning — treated its 1,000th patient recently and received special recognition (right). “This by itself is amazing,” says Strair. “It speaks to the camaraderie and collaborative nature of all the people here. You can’t do this by the books. There has to be flexibility and exceptional dedication to treat these patients.”

**Glass Half Full**

McLeod agrees. “Everyone puts so much care and attention into a patient’s well-being. This is not a death sentence,” he says. In 1994, he was told he had six months to live and when his girlfriend Kim, now his wife, cried, he said, “I am not going to die from this. The easiest thing in the world would be to give up but I intend to go through the worst to get better.” And he did. Shaking his head remembering those dark days, McLeod is a 60-year-old business owner with a contagiously optimistic spirit. He recalls joking with Jacqueline Manago, RN, BSN, OCN, his nurse-clinician, during eight rounds of chemo, radiation and the transplant, “Can we do this without needles?”

McLeod credits his wife for pushing him into support group sessions. “I learned they were looking for a candidate for the first bone marrow transplant.” As a single father, McLeod raised a son who donated platelets towards his recovery. “I lost him in 1999 at 26. A great kid, he was best man at my wedding but he never got over his mother walking out.” His second marriage to Kim was a celebration that included the Cancer Institute team. “Dr. Strair, Jackie… they were all there,” he says. “We had more than just a patient relationship. We were friends. Roger Strair would call me day or night to ask how I was.”

With fertility compromised by chemo, McLeod and his wife adopted a baby. “I get to do this parenting all over.” Son Daniel is 11, loves playing baseball as well as his dad’s trumpet. Today, McLeod feels great though he has no sense of smell and his skin peels. “People worry about unimportant things. I don’t. I get what life is all about: being happy and communicating that happiness. Most of us are stuck in a box. This is a big world. If you want to be happy and successful, you’ve got to step out of that box.”

“I’ve been here since that first transplant,” Manago reports. “We really do become part of our patients’ lives. What keeps us going are the success stories.” Transplant coordinator Mary Kate McGrath, MSN, RN, APN-C, a 10-year veteran, concurs, “We are a tight-knit group with the utmost respect for everyone. That’s why we come to work here and never leave.”

“This camaraderie goes back to Dr. Strair,” Manago adds. Chief, hematologic malignancies/hematopoietic stem cell transplantation, Strair chose his specialty because “There is nothing more diverse or powerful than the immune system.” Author of more than 55 publications, he has led...
his team into numerous investigator-initiated treatments currently in clinical trials at the Cancer Institute. “Every year there are major improvements,” Manago says. “We get our optimism from this as well as from each other.” Oncology “incorporates different areas: internal medicine, surgery, radiation,” Strair, professor of medicine at Rutgers Robert Wood Johnson Medical School and an attending hematologist/oncologist at RWJ, explains. “It allows us to have a lot of continuity,” getting to know patients as people.

Take Sherryann Glasgow, “a smart, articulate person,” he says, who required a more complicated transplant than McLeod’s. The feelings between this doctor and patient are mutual. “Dr. Strair is super cool,” she says. “He would come by my bed at 6 a.m. and I’d wonder what time he left his house!”

Be Patient Present

Diagnosed with adult T-cell lymphoma in 2003, Glasgow, 34, had an allogeneic transplant, where the source of the cells is a donor. Strair explains, “This can create problems because the benefit comes from the donor’s cells as they develop in the host, recognize cancer cells, and kill them. But they can also attack normal cells and cause graft versus host syndrome.” Donors can be matched siblings, matched unrelated people, or cells can come from umbilical cord blood. Glasgow had matched with her sister. But, “Sherryann

“...You can’t allow your mind to idle or you set yourself up for negativity.” Faith, family, friends and what Sherryann Glasgow calls “patient presence” also help. “You need to be present in your own battle, involved in every step of the journey.”

Tackling the “Root” of the Problem

When diagnosed with stage IV lymphoma in early 2004 at age 36, Gary Chiarello (below) never would have imagined that his battle with the disease would help result in more than a million dollars being raised to help scientists further unlock the mysteries of this and other blood cancers. While his brother Ralph was his donor for an allogeneic stem cell transplant, it was his other brother Guy, who along with friend Guy DelGrande, spearheaded the Guys Golf charity event to support research in the Hematologic Malignancies/Blood and Marrow Transplant Program at Rutgers Cancer Institute of New Jersey.

Gary Chiarello’s journey began with chest pains that led to an x-ray showing a mass next to his lung. After enduring seven rounds of chemotherapy over six months to shrink the tumor, he met with Roger Strair, MD, PhD, to discuss the possibility of having a transplant. His three children were small at the time (5, 6 and 9) and he remembered “having thoughts of never seeing them grow up and sharing in the special moments in their lives.”

Chiarello went ahead with the procedure and was out of the hospital in 22 days without much complication. (A typical post-transplant stay could be up to 45 days). He did experience graft versus host disease (a common post-transplant condition where the donor cells start to attack the patient’s organs) in the months following, but he notes because of the comprehensive care he received, he continued to improve and was even able to go back to work within a few months.

In 2010 the Guys Golf event kicked off, having raised more than a million dollars since its inception. Chiarello says it is his family’s way of “giving back,” and he credits both his brother Guy and Guy DelGrande for a successful event each year.

Thanks to Guys Golf support, investigators are learning more about tackling leukemia and lymphoma. One research initiative led to the identification of lymphoma subsets that form a unique population of cells resistant to standard chemotherapy. These particular cells remain dormant until all of the surrounding cells are killed by treatment. Just like the roots of a weed, these cells grow back and result in relapse. Identification of these cells has led to new targeted treatment opportunities through clinical trials.

“The generosity of Guy Chiarello, Guy DelGrande, their families and all supporters of the Guys Golf event makes this possible, and we are grateful for their continued support in helping to advance these discoveries,” notes Dr. Strair.

Other laboratory and clinical studies also have been funded in part thanks to Guys Golf. Additional philanthropic funding for Strair’s research includes support from the Century for the Cure bike ride.
required several infusions to boost her immune system. Otherwise, it would have been uncontrollable lymphoma,” Strair recalls.

Her mother and another sister weren’t as fortunate and died from lymphoma. Glasgow’s last treatment was in 2006 but she admits, “The recovery phase is where my battle has been because of setbacks.” Her lungs and vision are affected and she has trouble swallowing. Undeterred, she completed a master’s degree in public health education online and stays positive by meditating, listening to music, reading, praying and urging other patients to stay busy. “You can’t allow your mind to idle or you set yourself up for negativity.” Faith, family, friends and what she calls “patient presence” also help. “You need to be present in your own battle, involved in every step of the journey.”

She laughs about her memoir, *Shaken But Not Stirred*, where she writes: “Hearing the news, a million thoughts raced through my mind. The devil presented me with an idea. ‘Why don’t you celebrate at a bar?’ When the bartender asked, ‘What can I get you?’ I replied, ‘Chemotherapy followed by radiation on the rocks, and rounds of shots of side effects.”

If I Can Do This...

Rick Kamdar’s story begins in 2004 at age 19. “I’m the baby of my family and everyone around me was trying to stay calm but I could see worry on their faces,” he says. “Something was definitely wrong because I’d had a dramatic weight loss.” A biopsy was taken “but no one was telling me anything. So I turned to my brother who blurted it out, ‘It’s Hodgkin’s.’ And I said, ‘Good, it’s not cancer.’ Then he said, ‘But that is cancer.’”

Kamdar’s first transplant was autologous but when he relapsed in 2005, a matched unrelated donor was found. In remission for seven years now, he took time off from college to recover and later graduated from Pace University. Working in his family’s international business for five years, he has “traveled the world meeting amazing people on every continent except Antarctica.” He recalls “the shock of cancer. It comes out of nowhere and is an experience you wouldn’t wish on your worst enemy but one that can bring out your most positive traits. You go through hell, feeling miserable.”

His family as well as Phi Sigma Kappa fraternity brothers helped him survive. “It brought my family closer,” he says. “When I was going through it, I made a deal with life that if I ever got out, I would make sure not to ruin it. Things I used to think were big deals are not. I live a happy, busy life.” Whenever he is at the hospital, he heads up to the bone marrow unit to talk to any patients going through difficult times. “I say, ‘Look at me, if I can do it, so can you.’”

Avoiding Information Overload

The Cancer Institute team believes that making complicated medical decisions is never easy. According to Strair, some patients find the process “straightforward.” Others need a different “set of tools or approach to communication and education.”

Patients like Mark Coville, 56, who had an allogeneic transplant for acute myeloid leukemia in April, think too much information can be “overwhelming.” A successful executive with BlackRock, he finds the “wild ride of the financial markets” easier to navigate than the roller-coaster timeline he weathered this past year. Exhausted last Thanksgiving with a cough “that came not from my lungs but deep down in my stomach, I had no energy and could hardly drive home from work.” Between November and January, he went to his doctor seven times, misdiagnosed until a blood test on Jan. 13 confirmed leukemia. “It was pretty shocking.” But “I purposely didn’t read anything online.” He left that to his wife, Lynda, who researched for countless hours. “To tell the truth, she was my caregiver and partner in all this. I couldn’t have done it without her. But for a patient, I think too much information can be confusing and I didn’t want to add more stress. I’d ask questions, of course, but I wanted to buy in one hundred percent to what my oncologist was telling me so I could say, ‘Okay, tell me what to do and I’ll do it.’”
On Jan. 15, Coville was told to go to the Emergency Department at Robert Wood Johnson University Hospital. That was a Wednesday. “My wife drove me and I thought I’d be there overnight,” he recalls. “They told me 30 days but it turned into 45.” Luckily, his sister would be a perfect match for the transplant once the cancer cells were destroyed. By Friday, he started chemo. “What I didn’t know then was that my body had been 95 percent leukemic. My chest had begun to turn septic.” After a first round, a biopsy indicated the need for more chemo, “which was hard to take physically,” he says. “I definitely had chemo brain, couldn’t focus for more than a few minutes and slept a lot.” Discharged in February, Coville laughs that his Cancer Institute medical oncologist Vimal Patel, MD, assistant professor of medicine at Robert Wood Johnson Medical School and an attending medical oncologist at RWJ, told him that Lynda “became his eyes and ears at home” monitoring his health. Then, he was back for the transplant in early April.

Still recovering, he feels lucky that his doctors and nurses were so professional and caring, especially Dr. Patel and Joseph Aisner, MD, co-director of the Cancer Institute’s Thoracic Oncology Program, professor of medicine at Robert Wood Johnson Medical School and an attending medical oncologist at RWJ. Anxious to dive back into work and life, Coville has been cautioned to go slow. Dr. Aisner warned, “You may want to push this envelope but you don’t want to do anything to compromise your health.” Coville agrees, “My bone marrow is infantile, like a young child’s.” So, he avoids sun, wears a mask, hat and gloves outside, stays away from crowds and public places, and washes his hands “15 to 20 times a day. I did play 13 holes of golf with Lynda last Sunday.”

Coville admits, “My wife and children, Candace and David, were always beside me. I am so lucky.” His own father died at 49 of multiple myeloma and he lost his mother to breast cancer on March 24. “I am glad I got to say goodbye and attend her funeral. So many people showed tremendous interest in me. I am more emotional now and a different person after all this.” At Merrill Lynch for 25 years and BlackRock for five, he used to think people were defined by their jobs. “I no longer believe that. There are other things in life more important.”

Scientific advancement over the past two decades and the promise of precision medicine — matching targeted therapies to genomic alterations in the body to create ‘personalized’ treatments for cancer patients — leave Strair optimistic. “In 2004, it cost $100 million to sequence one person’s genome. Now it costs less than $10,000 and this decrease reflects an explosive growth in technology that translates into a better understanding of cancer.” Munson McLeod, Sherryann Glasgow, Rick Kamdar and Mark Coville know this truth up-close and personally.
Despite major advances in the speed and accuracy of diagnosing and treating certain cancers, some malignancies have proven wily at evading chemotherapy, surgery and radiation. However, highly sophisticated technology and new alliances between laboratory scientists and oncologists promise to accelerate the availability of therapies that are specifically “targeted” to an individual patient’s particular tumor and its genomic abnormalities.

A $10 million anonymous gift to Rutgers University will launch a dynamic collaboration that aims to advance targeted therapy, also known as precision medicine, promising to limit often-toxic drug treatments while pinpointing more effective treatments. Rutgers Cancer Institute of New Jersey and Rutgers Human Genetics Institute of New Jersey will work hand-in-hand to ensure New Jersey’s leadership role in this potentially game-changing new approach to beating cancer.

The two groups already have a history of partnering, but the integration of Rutgers University and the University of Medicine and Dentistry of New Jersey on July 1, 2013, opened new avenues for working together. The high-tech genomics and diagnostic facility known as RUCDR Infinite Biologics® (RUCDR), directed by Jay Tischfield, PhD, the Duncan and

Robert DiPaola, MD (left in photo), and Jay Tischfield, PhD, are leading a game-changing, collaborative precision medicine effort at Rutgers University thanks to a $10 million dollar anonymous gift.

BY EVE JACOBS ■ PHOTOS BY NICK ROMANENKO
The $10 million gift also will support the recruitment of additional faculty and cancer biology curriculum development in the Rutgers Department of Genetics to prepare the next generation of geneticists and specialists in systems biology, an up-and-coming field that uses a wide range of molecular, cellular, biochemical, behavioral and other approaches to study complex biological networks.

Nancy MacMillan Distinguished Professor of Genetics at Rutgers, has already earned its stripes on the national scientific scene, winning many millions in federal grants for its parent organization, the Human Genetics Institute. RUCDR is the world’s largest university-based biorepository specializing in genomics, with more than 12 million stored human biosamples categorized by clinical, genetic and demographic information. Scientists at RUCDR and its Clinical Genomics Laboratory study the genetic causes of complex diseases in order to advance the accuracy of diagnosis, and ultimately identify new applications for current therapies and avenues for developing new drugs.

RUCDR Chief Operating Officer Andrew Brooks, PhD, associate research professor in the Department of Genetics at Rutgers University, spearheaded the Clinical Genomics Laboratory and led the team that designed and developed diagnostic assays based on genomic targets provided by the Cancer Institute of New Jersey’s Associate Director for Translational Science Shridar Ganesan, MD, PhD, and colleagues.

Rutgers Cancer Institute is one of only 41 Comprehensive Cancer Centers as designated by the National Cancer Institute (NCI) in the country and the only such center in New Jersey. Accounting for more than 100,000 patient visits each year and helping care for additional cancer patients through its network of hospitals across the state, the Cancer Institute has had a major impact on cancer care and treatment in New Jersey. Advances in basic, clinical and translational research have been realized in laboratories located directly above patient treatment areas. It is a unique arrangement that allows physician-scientists to develop new therapies, explore the effects of new drug compounds or treatment combinations on patients, and further fine tune these investigational therapies back in the laboratory for optimal patient benefit. It is this precise tailoring of cancer treatment that is at the heart of this collaborative effort.

“No two cancers or two people are exactly the same,” says Robert DiPaola, MD, director of Rutgers Cancer Institute. “Collaborating with RUCDR will allow us to identify the drivers that make a tumor cancerous, and target therapies to these abnormalities in a more rapid fashion than we have been able to accomplish before.”

“Personalized medicine” is a term that has been bandied about for the last few years. For Dr. DiPaola, “precision medicine” is a more apt descriptor—meaning “precise to the biology,” he says. While just a short time ago, cancer was primarily described by its site of origin and stage, many cancers are now diagnosed based on its molecular biology. For instance, it is now known that there are more than 200 different types of breast cancer.

“We are looking at the genetics of cancer, not the tissue of origin,” Dr. Tischfield concurs. “This allows us to analyze tumors in a more detailed way and also pay attention to subtypes of a specific cancer.”

With new, highly sophisticated technology, genomic analysis is much faster and far less expensive than just a few years ago. Partnering with RUCDR, the Cancer Institute will offer in-house genetic analysis of tumors to Cancer Institute patients, with the goal of identifying the particular abnormalities in the gene that are causing the cancer to grow more rapidly. Currently the Cancer Institute is utilizing an outside organization to provide this service for its patients as part of a clinical trial.

The Cancer Institute of New Jersey has decided to focus on rare and resistant tumors initially, including cancers striking children—a specialty that is certainly needed and rare in itself. The gift will support the expansion of genomic analysis at the Cancer Institute.

This is where the Rutgers partnership will certainly change the clinical picture. While the Cancer Institute already offers more than 250 clinical trials, DiPaola says the menu of trials will evolve over the next few years, expanding what physicians can offer their patients. “If a cancer is treated and then comes back, we will be able to look at the set of changes, get detailed information on these changes, and use that data to find therapies that target the changes. Resistant tumors often have three to four genetic changes. In the future, we want to offer molecular analysis as part of our routine care for certain cancers,” he adds.
Dr. Ganesan, an oncologist and researcher is an active member of the molecular genetics tumor board, led by Lorna Rodriguez, MD, PhD, who heads the precision medicine initiative at the Cancer Institute and is a professor of obstetrics, gynecology and reproductive sciences at Rutgers Robert Wood Johnson Medical School. This multidisciplinary group—comprised of 15 to 30 medical oncologists with expertise in a wide spectrum of specialties, as well as geneticists, basic scientists and systems biologists—meets weekly to discuss tumors that are not amenable to standard treatment.

“Genomic analysis of tumors is available to patients with rare and resistant cancers who are participating in our genomic analysis clinical trial. The molecular genetics tumor board studies and discusses the data from the patient’s genetic sequencing that may have uncovered one or more novel mutations,” says Ganesan, associate professor of medicine and pharmacology at Robert Wood Johnson Medical School. “This can give us insight into improved more targeted therapy.”

For instance, HER2 is a breast cancer mutation that sometimes shows up in other tumors. “If specific HER2 mutations are found in a lung tumor, for instance, we can try the anti-HER2 drug treatments already developed for certain breast tumors to see if the therapy will work,” he says. “This is the type of treatment option that is mostly developed and offered through NCI-designated cancer centers including the Cancer Institute.”

Ganesan foresees that as specialists become more skilled at deciphering the new data, they will be able to readily match mutations with available drug treatments and help to develop new drugs to target specific mutations. Over the next few years, this should translate into improved outcomes for patients.

The $10 million gift also will support the recruitment of additional faculty and cancer biology curriculum development in the Rutgers Department of Genetics to prepare the next generation of geneticists and specialists in systems biology, an up-and-coming field that uses a wide range of molecular, cellular, biochemical, behavioral and other approaches to study complex biological networks. As the research gains momentum, providing a wealth of detailed information on the genetics of an individual’s cancer, the ability to undermine difficult-to-treat malignancies becomes ever more conceivable for specialists at NCI-designated cancer centers such as Rutgers Cancer Institute of New Jersey.
Patrick Condon, soft-spoken, wise and celebrating his third year of being cancer-free, is a perfect example of how the age-old phrase, “Knowledge is power,” can benefit a patient. From a Persian poet in ancient times to the Hebrew Book of Proverbs, the King James Bible, and Sir Francis Bacon writing, “Scientia potentia est” in 1597, the expression epitomizes his prostate cancer experience. And there was no better place for a seeker of knowledge like Condon than Rutgers Cancer Institute of New Jersey where three specialists and teams of experts came together to care for this 68-year-old retired AT&T manager.

BY MARYANN BRINLEY
Diagnosed with prostate cancer in 2008, Condon found his way to urologic oncologist Isaac Kim, MD, PhD, medical oncologist Mark Stein, MD, and radiation oncologist Sung Kim, MD, at the Cancer Institute of New Jersey after researching all his options. “These three docs worked seamlessly together, supportive and professional,” he says. He had an earlier scare with a high reading from a prostate specific antigen (PSA) test in 2004 and had a biopsy. It wasn’t something he wanted to do again, especially since he was aware of the controversy about whether the test, which measures a protein produced by the prostate, could be trusted as a diagnostic tool. “I was in the school of watchful waiting,” he admits. “Fast forward four years to a new urologist…” when his PSA levels were measured again and high. Ordinarily a small amount circulates in the blood. His new doctor encouraged him to get another biopsy. Unfortunately, he had cancer… but not advanced.

The Educated Patient

“T

“... but not advanced.

A Comprehensive Approach

Care at the Cancer Institute was “immediately pro-active,” Condon says. “It blew me away with how responsive they were.” Within days, he was seeing Stein, who is also a member of the Phase I/Investigational Therapeutics Program, a multidisciplinary scientific group developing new methods for treating cancer. Stein “puts a lot of patients
Not every patient is like Mr. Condon. I was struck by how easily we could talk and how throughout his whole life, he needed to learn. More than anything, we want patients who are willing to be educated,” says medical oncologist Mark Stein, MD.

Retired at 64, Condon has been traveling with his wife to China, New Zealand, Australia, Russia, most countries in Europe. “The world is a big place and experiencing so many cultures is a real gift.” He reads a lot and also audits courses at Princeton University and online courses from other renowned schools. The father of two daughters who live not far from him, “We get to see them quite a bit. No grandchildren. Just a grand-dog,” he laughs. The quintessential student, “I’ve always been healthy, exercising and watching my weight. I used to do 100- and 50- mile bike trips but my joints can’t take it any more so I go to the gym and get on the elliptical machine. Invigorating but not as much fun as biking. I have time to think a lot more now.” In fact, by the time he met Stein, this patient was already aware of research comparing prostate to breast cancer with recommendations for similar treatments.

“The standard of care is to give radiation alone to take care of any local recurrence. This is referred to as salvage radiation,” Stein, an assistant professor of medicine at Robert Wood Johnson Medical School, says. “But there is always a question and we know that in other diseases, breast cancer for instance, there is benefit to systemic therapy.
There might be cells, or micro-metastases, floating around.” Stein enrolled Condon in a clinical trial led by Duke University that included the Cancer Institute and Johns Hopkins University to study surgery, chemotherapy and radiation for prostate cancer. The consortium has completed the first phase of this multi-modality study with 40 patients and is now launching the groundwork for a larger trial.

Stein points out that not enough adults take part in clinical trials: “In the pediatric community, 80 percent of patients are enrolled while only three or four percent of adult cancer patients are. Certainly there is a push to get everyone into a trial but it takes time, money, commitment and not everyone can be treated at an academic medical center though they should be.”

During four rounds of chemotherapy, “I lost my hair. I had mouth sores. I ached and I had no taste for food but very little nausea. There were a few episodes where my white blood cell count was low but in general, it wasn’t that bad,” says Condon. Ever the optimist, Condon admits to “a couple high fevers.” The good news was that during chemotherapy his PSA levels dropped “so that was very encouraging.” He was so pleased by this that he even asked his radiation oncologist Sung Kim, associate professor of radiation oncology at Robert Wood Johnson Medical School, if he really needed to have radiation. “Chemotherapy may lower your PSA but has not been shown to be curative, so radiation is necessary,” Sung Kim told him. “In the IT field, we used the term ‘transparent,’ to describe this. It moved right along. Sung Kim was great.” At the Cancer Institute, he focuses on genitourinary cancers (prostate, bladder, testicular) as well as head and neck cancers. “With a team of urologists, medical oncologists, nurses, physicists, dosimetrists, and therapists, I educate patients on treatment options so they can make informed choices,” the doctor explains. Six and a half weeks of radiation treatments were designed to kill any cancer cells remaining. The technicians made Condon feel right at home, and he recalls “kibitzing with them, having fun conversations.” Unlike chemo, there were no side effects.

Now, every three months, he checks in with Stein and he also gets annual scans as part of the clinical trial. In July, “I was at my three year anniversary,” Condon says. “Cancer woke me up to the finality of all this. I had always thought of myself as healthy and while I know I am not immortal,” he adds, “there is a still so much left to enjoy and appreciate in life.”

Surgical Specialists

The robotic prostatectomy Patrick Condon experienced has become a more common procedure over the past decade, and when offered through a comprehensive program that has a specialized focus in this type of surgery “it is of great benefit to the patient,” says Mira Hellmann, MD (below), director of the Center for Minimally Invasive Surgery at Rutgers Cancer Institute of New Jersey.

The Center for Minimally Invasive Surgery features more than 20 surgeons, who are specially trained in robotic and laparoscopic methods through a rigorous program in conjunction with Rutgers Robert Wood Johnson Medical School and Robert Wood Johnson University Hospital, the flagship hospital of the Cancer Institute of New Jersey.

The Center offers patients access to a full range of robotic and laparoscopic procedures that play a key role in the treatment of multiple cancers, including gynecologic, prostate and other urologic cancers, as well as colorectal, lung, and liver cancers. It offers access to the most up to date, state-of-the-art technology including robotic surgery, single site minimally invasive surgery (both robotic and standard laparoscopic), and fluorescent dye technology that helps surgeons distinguish cancerous tissue from healthy tissue (used in a myriad of robotic procedures), just to name a few.

“It’s about improved quality of life,” notes Dr. Hellmann, who is also an assistant professor of obstetrics, gynecology and reproductive sciences at Robert Wood Johnson Medical School. “Minimally invasive procedures are helping patients get back to work quicker and resume regular physical activity at a faster rate than conventional surgical procedures might.” And when offered through a program where the patient can follow up with the surgical oncologist, and see a medical oncologist, social worker and other key players on the healthcare team all under one roof; “it minimizes stress for the patient and enables everyone to be on the same page when it comes to follow up care,” she adds.

Additional information can be found at cinj.org/MinimallyInvasiveSurgery.
At 15, Keith Pasichow was enjoying the regular, everyday activities that a teenage boy should be at that age: going to summer camp, engaging in theater arts, hanging out with friends. But six months of aches and pains in his left leg eventually led to unusual swelling in his thigh, thus beginning a journey with cancer that would later encourage a profession in which he helps children and teens traveling that same path.

Keith Pasichow, MD, sometimes tells his patients and their families that he too spent time as a cancer patient. “In sharing that, I can form a connection with the patient that may be beneficial to them. And many times, parents find a sense of relief that ‘here is someone that has been there and is now doing well.’ I can only hope to make their lives a little better during a terrible time.”

After seeing his pediatrician and a number of specialists to investigate the swelling, he was diagnosed with osteogenic sarcoma (bone cancer) and referred to Rutgers Cancer Institute of New Jersey for chemotherapy, which was followed by surgery to remove the tumor at University Hospital in Newark. Depending on the response of the tumor to the chemotherapy and the ability of the surgeon to save enough of the bone and muscles in his thigh, there was a possibility that his leg might have to be removed – but surgeons wouldn’t know that until they started the procedure. The outcome of that surgery is what gave Pasichow a positive mindset moving forward. “I knew I would have other procedures and treatment to get through, but when I woke up and realized how well the surgery had gone, I knew I would be okay,” he says.
During that first year, a clinical trial was part of Pasichow’s chemotherapy regimen. It examined an investigational drug called MTPPE when combined with the standard-of-care mix of doxorubicin, cisplatin and methotrexate. Side effects including fever were significant. “There was one time his temperature spiked incredibly high,” recalls Pasichow’s doctor, Richard Drachtman, MD, who was a young attending physician at the time and is now the interim chief of pediatric hematology/oncology at the Cancer Institute of New Jersey. “Despite how terrible the treatment made him feel, he understood he was doing a positive thing for research, even at the age of 15.”

Once chemotherapy ended, it was almost as if a shield was removed. “Patients often feel that chemotherapy is an umbrella – an extra layer that helps protect the body from the cancer – so it’s easy to feel vulnerable once it stops. After that, everyday ailments like fever and the common cold made me feel nervous, as we didn’t know if that was an indicator of the cancer coming back – but it never did,” says Pasichow.

Even though there was no recurrence, Pasichow did have his share of setbacks. Two years after the procedure to remove the tumor, surgeons had to go back in to transplant the fibula (the skinny bone in the calf) and attach it to the larger femur bone in the top part of the
leg in order to help it heal better. He then underwent bone grafting (a procedure taking bone from elsewhere in the body to replace missing bone) in order to further strengthen the leg.

One of his biggest concerns as an active teen was his ability to walk. Fortunately for Pasichow, he has been able to use a crutch after recovering from that first surgery without a lot of restrictions. Now, at 33, he is conscious of late effects such as heart disease, bone pain, and fertility issues that might occur in his adult life as a result of the life-saving treatments he received. To learn more, he periodically attends sessions of the LITE (Long-term, Information, Treatment effects and Evaluation) Program at the Cancer Institute, where teens and young adults treated for a pediatric cancer are evaluated and provided with support and information about the health conditions they may face later in life (see sidebar, right).

A different path of Pasichow's cancer journey emerged toward the end of high school, when it came time to select a college. While having Dr. Drachtman's ear as his physician, Pasichow began to have a different line of conversation with the doctor — about career aspirations. Pasichow always had an interest in the medical field, but the impact of the care he received during his battle with the disease led him to focus on the area of pediatric hematology/oncology. But another interruption of being plagued with chronic, debilitating pain during his freshman year at Muhlenberg College made him wonder if that goal would ever come to fruition. It was a slight detour that prompted a switch in majors from pre-med to theater arts, as being on multiple pain medications impacted his heavy case load in studying to be a doctor. It was a path

How have things changed since 1996 when 15-year-old Keith Pasichow was diagnosed with bone cancer? For one thing, the management of side effects and supportive care for pediatric cancer patients has markedly improved, says Richard Drachtman, MD, interim chief of pediatric hematology/oncology at Rutgers Cancer Institute of New Jersey, noting a program like LITE (Long-term, Information, Treatment effects and Evaluation) is the missing piece. “Treatment late effects for pediatric patients are different than those experienced by adult patients, because children and teens are still growing,” notes Dr. Drachtman. That is why pediatric hematologist/oncologist Margaret Masterson, MD, and pediatric advanced practice nurse, Dawn Carey, RN, MSN, APN, created LITE, having recognized these needs.

“These are patients who could very well develop heart, kidney, neurological and other problems as they grow older due to the life-saving cancer treatment they received,” says Dr. Masterson, who is the program’s medical director and an associate professor of pediatrics at Rutgers Robert Wood Johnson Medical School.

“It is our aim to educate them about medical challenges they may face in the future and to teach them about the importance of follow-up tests and care,” she adds. Teens and young adults who are two years beyond their last treatment with no evidence of disease are encouraged to attend the program, where they are evaluated and provided with information and referrals to other specialists if needed.

The program also addresses other factors that may be problematic for this population. “Some patients have issues with health insurance, as perhaps they no longer are on a parent's policy but do not yet have their own. We explore this aspect with them, as well as what their rights are in informing a prospective employer of their disease, and what fertility challenges they might face in starting a family one day,” says Carey, who is the program’s coordinator. "In providing younger patients with these specific resources and tools, we are helping them meet some of the most important needs of cancer survivorship,” she continues. Having experienced the LITE Program as a patient and now seeing the value of it as a physician who treats pediatric cancer patients, Pasichow says he couldn’t agree more.
that was meant to be, however, as in one of his theater classes he met his future wife Lisa Bracigliano who Pasichow emphasizes was, and continues to be, a major source of love and support. After a second surgery and bone grafting procedure midway through his undergrad studies, the pain subsided and it was in Pasichow’s senior year that he switched back to pre-med. He felt then that becoming “Dr. Pasichow” was more of a reality.

Fast-forward to present day and Pasichow has two more years of fellowship remaining at Columbia University Medical Center as a pediatric hematologist/oncologist. While closer to seeing his career aspirations through, it still hasn’t been easy. He remembers the very first interaction he had as a physician with a pediatric cancer patient. “It was during the patient’s diagnosis, and it felt like I was getting diagnosed all over again,” he notes. “It did take me a while to be able to separate myself from that feeling in order to better support my patients.” And when appropriate, he sometimes tells his patients and their families that he too spent time as a cancer patient. “In sharing that, I can form a connection with the patient that may be beneficial to them. And many times, parents find a sense of relief in that ‘here is someone who has been there and is now doing well.’ I can only hope to make their lives a little better during a terrible time.”

Through the years, Drachtman has been pleased to learn that some of his patients have entered the medical field – as both doctors and nurses. But having one of his “kids” follow directly in his footsteps is incredible to him. “It’s an awesome feeling to know that I did something right as a role model – that conversations we had or advice I had offered to Keith may have contributed to the career path he’s on now,” says Drachtman, who is also a professor of pediatrics at Rutgers Robert Wood Johnson Medical School.

Having celebrated five years of marriage earlier this summer, Pasichow and his wife are looking forward to a special vacation to Italy and more trips to the theater once his schedule becomes less hectic. Would he change anything about his journey? “No,” he says. “No one would choose to have cancer, but it is an experience that has made me who I am. It was horrible at times, but some really amazing things came out of it.” It is without a doubt that Pasichow’s many patients and colleagues in the field who see a bright future ahead for this doctor would agree.

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**What’s New in Patient Support Services**

From diagnosis, through treatment, and into recovery, Rutgers Cancer Institute of New Jersey continues to provide support services for cancer patients and their families. Now, in addition to our Social Work staff being available to help patients with issues such as the emotional impact of diagnosis, we are offering a variety of programs and classes to further support our patients. We will soon offer two classes weekly that will teach relaxation techniques and encourage gentle movement, as ways to manage stress. A six-week series is also available for patients who are finished with active cancer treatment. The Cancer Support Community’s Cancer Transitions: Moving Beyond Treatment™ will incorporate exercise, support, and education into one program focusing on the transition after treatment ends. To learn more about patient support services and programs offered, visit cinj.org/PatientSupportServices or call 732-233-6792.
The method of treating cancer patients who have genomic abnormalities with drugs designed specifically to target those abnormalities has resulted in higher response rates than have been previously seen. Often times these discoveries are made as part of a clinical trial. Patient participation in clinical research studies contributes to the advancement of scientific discovery and the development of the next generation of cancer treatments. Innovation of clinical trial design and the need to assess and streamline established processes for developing and executing these studies is more important than ever before. A $600,000 gift from Jewels of Charity is fueling a comprehensive clinical trial initiative that will address those needs.

The effort is known as the Institutional Multidisciplinary Paradigm to Accelerate Collaboration and Translation (IMPACT). The aim – as illustrated in the acronym – is to enhance the way cancer discoveries are translated from the laboratory bench to patient bedside and back again. Further development of the IMPACT initiative will require increasing scientific depth to enable new approaches to improve the prevention, early detection, diagnosis and treatment of cancers.

As part of the effort, the Cancer Institute earlier this year recruited a new Associate Director for Clinical Science. Howard L. Kaufman, MD, FACS, a leader in clinical and translational research, is nationally known for his work in cancer immunotherapy and melanoma. As part of the IMPACT initiative, Dr. Kaufman, who is also a professor of surgery at Rutgers Robert Wood Johnson Medical School, will lead six new specialized clinical trials aimed at molecular targets, as opposed to a specific tumor type. The Jewels of Charity gift will enable $100,000 to be devoted to each of the six studies.

One of the six clinical trials will focus on a new approach that utilizes T-cells (part of the white blood cells) from cancer patients in which the cells are genetically modified to attack only cancer cells. This approach requires specialized centers such as the Cancer Institute that have the capability of preparing these cells. These cells already have shown major clinical responses in patients with certain blood cancers, such as B cell lymphomas, chronic lymphocytic leukemias and in Hodgkin’s lymphoma patients that have not responded to other treatments. It is expected that this approach will first be tested in patients with lymphoma and then in solid tumors, such as melanoma, ovarian cancer and lung cancer. The aim is to confirm the effectiveness and safety of these new agents and provide the best possible care for patients with difficult to treat cancers or those that have not responded to more established treatment options.

Philanthropic funding through the Award of Hope Gala, Rutgers University Foundation, and the Cancer Institute Cancer Center Support Grant (P30CA072720) will provide additional support for the IMPACT clinical trials.

Dynamic Duo: A special thanks to Guy Chiarello and Guy DelGrande for a fantastic day on the links earlier this summer in support of leukemia/lymphoma research at Rutgers Cancer Institute of New Jersey. Since its inception in 2010, the Guys Golf outing has raised more than $1 million. Learn more about what inspired this duo to spearhead this annual event (see page 9).
Expanding her Rutgers Roots

As the holder of three degrees from Rutgers, Bernice Venable (right) likes to tell people that the blood in her veins is as red as the university’s Scarlet R. So when the Cancer Institute of New Jersey became part of Rutgers last year, Venable and her husband, Carl Venable, who is also a Rutgers graduate, felt it was only natural to begin to include the institute in their giving plans.

“We needed to do something irrevocable and that was going to be lasting,” Venable says about the couple’s decision to create a charitable gift annuity that benefits the Cancer Institute and two other Rutgers entities. “This is something that we felt we wanted to do and it made a lot of sense. There is some income coming back to us, but most important, once we’re no longer here, all of the remaining benefits will go to support these areas that are so meaningful to us.”

Like so many people, Venable has been touched by cancer. Her mother died of stomach cancer when Venable was just a girl, and her father-in-law died from prostate cancer several years ago. She believes that a cure for cancer will be found someday, and she is optimistic that the Cancer Institute can help in that search while providing patients today with the most advanced cancer care. “The attitude of the leadership at the Cancer Institute of New Jersey is upbeat,” Venable says. “You have to be upbeat and tenacious. There is a cure out there.”

Venable and her husband have owned and operated a printing business for the past 20 years. Prior to that, she was a.

Slice of LIFE: Kudos to retired golf pro Val Skinner (bottom, center), the Val Skinner Foundation and the Ladies Professional Golf Association (LPGA) for another successful LIFE Event! Since its inception 15 years ago, this charity golf outing has raised $4.75 million to help support breast health education initiatives at the LIFE (LPGA pros in the Fight to Eradicate breast cancer) Center at Rutgers Cancer Institute of New Jersey.
“The attitude of the leadership at the Cancer Institute of New Jersey is upbeat. You have to be upbeat and tenacious. There is a cure out there.”  
— Bernice Venable

Everyday Community Heroes

A special thanks to schools, community-based organizations and friends throughout the state whose dedicated fundraising efforts have supported cancer research, patient care, community outreach and patient and family services.

Gifts up to $20,000

• Care to Walk
  North Brunswick Township High School and Township of North Brunswick

• Middlesex County Pancreatic Cancer Walk
  Middlesex County Office of Health Services and Middlesex County Board of Chosen Freeholders, New Brunswick

• ARM’s Away Golf Outing
  Eckhardt Family, Willingboro

Gifts up to $10,000

• C & C Club of Somerset Run
  Somerset

Gifts up to $5,000

• Movember
  Affinity Federal Credit Union Foundation, Basking Ridge

• William Paterson University Softball Tournament
  Women’s Softball Team, Wayne

To learn more, call 888-782-3666 or visit support.rutgers.edu/giftplanning.
Weathering the Storm: Personal Crisis Management Tips

In 2007, I was marking my 30th year of practicing law, representing companies in high visibility product liability claims. I also was busy advising clients, and giving lectures, on the topic of crisis management, having learned first-hand that companies are not always given a sixty-day notice that a crisis is coming. That summer, when I was diagnosed with Hodgkin’s lymphoma, it was quite a shock, especially since I had been feeling generally fine, working out regularly, and had no real symptoms.

I now had a major crisis — my own. It was unexpected and certainly not part of my “plan.” A husband and father to two daughters, with concerned parents and in-laws, and a senior partner in a major law firm, I had many responsibilities.

I was facing an uncertain future. Assuming all went well, I would have to weather six months of chemotherapy, and then radiation. My treatment would be no secret — I was going to lose my hair for sure — and that would be the least of it. My contact with people and my entire lifestyle would have to be adjusted. What to do? In part, I looked to the four step crisis management lessons I had been preaching to my clients, which ultimately comes down to being prepared in advance.

STEP ONE: Be ready for action.
Set up an internal communications system that can be activated almost immediately in any emergency situation.
Key participants must be identified in advance: public relations specialists, accountants, compliance officer, and corporate counsel.

In occasion we share the inspirational story of a cancer survivor. For this edition, we are pleased to share a narrative from 61-year old Ronald J. Levine (right), a partner in the Princeton office of the Herrick, Feinstein LLP law firm, where he is co-chair of the Litigation Department. Diagnosed in 2007 with Hodgkin’s lymphoma, Levine — who is also a member of the Rutgers Cancer Institute of New Jersey Director’s Advisory Board — looked to the strategies he used with clients in handling a crisis and applied them to his battle with cancer.

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What follows are those steps, and how I adapted them for my personal crisis:

STEP TWO: Communicate quickly, but accurately.
Remember, the news media will get the information out whether or not your company cooperates. Being the first to react puts the company in control of the situation.

When faced with my personal situation, my wife and I prepared our own crisis management manual. We had lists of experts to consult, articles on the illness and records to be gathered. We assembled crisis managers, including doctors, financial consultants and close friends whose judgment we respected. I also had “spokespeople.” My wife sent out emails to friends and family to let them know about the course of my treatment, and my secretary communicated with my colleagues. For clients, I dealt with them directly, telling them I would continue to service them as before. Thanks to the support of my colleagues, I did not lose any clients or business throughout my treatment.

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fear that my colleagues would begin to plan my exit from my law firm. Taking a page from my "never say no comment" playbook, I decided to share as much information as possible with my colleagues. I explained my condition – and the anticipated cure – to anyone who would listen. I also tried to stay visible. Being present is important to reassure your colleagues that you will survive the crisis.

**STEP THREE:**
**Do the right thing.**
*Do not minimize a serious problem nor blow minor incidents out of proportion.*

Setting the tone and determining the frequency of communications about a personal crisis can be challenging. The emails about my condition – which were written by my wife or by me – were balanced and fairly objective. We thanked everyone for their concern and did not sugarcoat the situation. The updates also were not doom and gloom, and they provided honest and accurate reports on my condition and progress.

**STEP FOUR:**
**Follow up.**
*Learn from the crisis. When appropriate, make amends to those affected and then do whatever is necessary to restore the organization’s reputation. With proper planning and preventive measures, a company truly can pull out of a crisis in a much stronger condition.*

The most important lesson I learned from my experience is to live every day to its fullest and not to sweat the small stuff. By sharing my experience, I have tried to give meaning to my own crisis by helping others through theirs. As has been the case for my clients – few of our colleagues are prepared for crises and have much to learn from those who have weathered the storm. By staying involved with the Cancer Institute of New Jersey, I have been privileged to be able to put my experiences to good use and to work with patients and their families who are facing these same challenges.

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**525,600 Reasons to Celebrate!**

From being nominated for a Tony Award to becoming engaged (with a diagnosis of ovarian cancer and treatment in between), Broadway star Valisia LeKae (right) described her journey over the past 525,600 minutes – or one year – to more than 200 guests gathered for the annual Survivors Day celebration hosted by Rutgers Cancer Institute of New Jersey in June. The inspirational talk capped off a special luncheon at the Hyatt New Brunswick.
The Rutgers Cancer Institute of New Jersey Network of hospitals spans the state. Together, the Cancer Institute and its Network hospitals provide cancer care to more than one third of the state’s cancer patients. Network hospitals offer their patients access to the latest cutting-edge cancer therapies and state-of-the-art cancer care available only at NCI-designated Cancer Centers and their networks, while helping patients remain close to home. For more information, visit cinj.org/network.

A Night to Remember: JFK Hospice Patient Attends Senior Prom

Senior prom is a momentous occasion for any teenager. For 18-year-old Tiffani Lindlar, a pediatric cancer patient at JFK Health’s Haven Hospice and the Bristol-Myers Squibb Children’s Hospital (BMSCH) Pediatric Palliative Care (PACCT) Program at Robert Wood Johnson University Hospital, it was also the wish of a lifetime – and a dream come true.

On April 30, 2013, at the age of 16, Lindlar was diagnosed with medulloblastoma, a cancerous brain tumor. Following a year of aggressive treatment, at BMSCH and Rutgers Cancer Institute of New Jersey, she was referred by the PACCT Program to JFK’s Haven Hospice, a program dedicated to providing care, compassion and comfort to patients and families coping with the end stages of life-threatening illness. With the assistance of nurses, home health aides, an array of medical resources, and through the partnership with the PACCT program, Lindlar was able to return home, surrounded by the love of her family and friends.

“Our life-affirming philosophy of care is about more than addressing our patients’ medical needs,” explained Shelly Cross, RN, at JFK Haven Hospice, who visited the teen twice a week. “It’s about helping them fulfill their goals and live each day to the fullest.”

More than anything else, Lindlar wanted to attend her prom. So her fami-
A Sudden Cancer Diagnosis -
A Local Option for Treatment at UMCP

Dave Kichula was admitted to University Medical Center of Princeton (UMCP) at Plainsboro in February, with back pain that was progressing so rapidly, his adult son had to help carry him into the hospital.

“In about a month, I went from having a little back pain, going about my normal business, to being incapacitated,” says Kichula, 63, of Hightstown. “I was in constant pain, and we didn’t know why.”

He had an MRI the next morning and was immediately taken to surgery. Surgeons removed a tumor pressing up against his spine. The diagnosis: metastatic melanoma, an aggressive cancer.

A cancer diagnosis is always jarring, but Kichula says the sudden news left him with little idea where to turn. That’s when he benefited from the relationship between UMCP and Rutgers Cancer Institute of New Jersey. He was able to receive cancer treatments close to home at UMCP while consulting with oncologists at both centers.

Shortly after surgery, he began radiation treatments in UMCP’s Edward & Marie Matthews Center for Cancer Care, which used precise, all-digital technology to target his cancer, while sparing a significant amount of the adjacent healthy tissue. Kichula also decided to pursue a state-of-the-art infusion therapy treatment that uses the body’s own immune system to destroy cancer cells. The treatments were administered in UMCP’s Ann Heffernan-Heisen Infusion Therapy Suite. And along the way, he turned to UMCP’s oncology nurse navigator for guidance.

In late May, Kichula was well enough to attend the high school graduation of his daughter, the youngest of his three children. “My energy has been improving and all the signs we have at the moment are looking pretty promising,” he says.

For additional information about Princeton HealthCare System and its oncology services, please call 888-742-7496, or visit princetonhcs.org

JFK Haven Hospice has a 20-year history of serving central New Jersey, including Middlesex, Union, Somerset and Essex Counties. The program offers inpatient, outpatient and support services for patients of all ages and their families. For more information, call 732-321-7769.
Homefront
A close up look at the lives of faculty and staff members at Rutgers Cancer Institute of New Jersey and what is important and of interest to them outside of work.

From being chased by zombies to braving cold temperatures in a ballerina tutu, Kim M. Hirshfield, MD, PhD (above), a medical oncologist at the Rutgers Cancer Institute of New Jersey Stacy Goldstein Breast Cancer Center, is more than halfway to accomplishing a goal of running 50 5K courses by the time she turns 50 in a few years.

In helping her patients manage physical activity following breast cancer treatment, she tells them to take it “low and slow” and that they “don’t start off running a marathon.” A patient of hers encouraged her to set her own fitness goal and the doctor decided to heed her own advice. But how does one start? “I knew I needed something fun and motivating,” she says. After sharing this goal with patients, 5K suggestions involving mud, zombies, beach sand, foam and even snowshoeing came in. Along with patients, friends and family (including niece Sarah and nephew Nic, pictured right), Dr. Hirshfield decided to try them all.

It was “low and slow” at first, with some walking and jogging. Now running, her finish times have been improving over the last year. Along with trying to meet her personal goal, she finds great meaning in her participation, as each run supports a charitable organization. From donating toys to underprivileged children to raising money for Superstorm Sandy relief and a number of cancer-related entities including the Cancer Institute of New Jersey, Hirshfield looks
For Elliot J. Coups, PhD (below and right), a behavioral scientist at the Cancer Institute, a passion for running is also helping others in need. Looking for volunteer opportunities in the New York City area where he lives, Dr. Coups discovered Back on My Feet (backonmyfeet.org), a national, for-purpose organization that uses running to help people overcoming homelessness and addiction transform their lives and achieve independent living and employment.

Those in need agree to meet for group runs of up to four miles around the city three days a week at 5:30 a.m. It is a form of commitment that can help them accomplish other goals, says Coups, who has been with the group for two years helping to organize and lead runs for Team Brooklyn (right, top). “The running in some ways mirrors the work individuals are doing along their own journey to find a job, secure a place to live, or reconnect with family,” he says. “In order to do that, you have to set goals, follow a plan, and overcome challenges, just like in running.”

To further support the work of Back on My Feet, Coups – a ‘serious’ runner since 2007 – is raising funds for the organization by taking part in a 155-mile, six-stage race across the Atacama Desert in Chile this fall (carrying full gear and food). It is a challenge he intends to accomplish for himself and his Back on My Feet teammates.
Because they Care

Honoring those who lost their battle with cancer, doves were released at the 15th annual Care to Walk event in North Brunswick. Since partnering with Rutgers Cancer Institute of New Jersey in 2006, Care to Walk has given an amazing $109,000 to support breast and ovarian cancer awareness and research.