Fiscal Year 2018 (April 1, 2017 - March 31, 2018) Accomplishments

Awards

- Forbes Names Roswell Park Comprehensive Cancer Center One of America's Best Employers Roswell Park Comprehensive Cancer Center has been named to Forbes' 2017 list of America's Best Employers. The Buffalo, N.Y., comprehensive cancer center was ranked 169th on the media organization's list of 300 Best Midsize Employers across 25 industries. Companies were selected for this distinction based on an independent and anonymous online survey of nearly 30,000 U.S. employees working for companies employing at least 1,000 people in their U.S. operations. The willingness to recommend one's own employer was considered to be the most important dimension of the assessment.
- Roswell Park CEO Honored as Keynote Speaker at Premier Annual Business Event
 Roswell Park President & CEO Candace S. Johnson, PhD, was honored as the invited keynote speaker
 for *The Buffalo News* annual Prospectus Premiere event, presented by the **Towne Auto**Group on Thursday, January 25, 2018.
- Grant Awards Bring More Than \$6 Million to Roswell Park Research Projects
 Researchers at Roswell Park Comprehensive Cancer Center garnered \$6.4 million in new grant
 funding to support important investigations, including an award of more than \$2 million from the
 National Cancer Institute (NCI) to Yuesheng Zhang, MD, PhD, Professor of Oncology in the
 Department of Pharmacology & Therapeutics, for his research to improve colorectal cancer
 treatment. Dr. Zhang's five-year investigation aims to evaluate the ability of a recombinant human
 protein to overcome resistance to the cancer drug cetuximab, a common problem in the treatment
 of colorectal cancer.
 - Other recent grants from government agencies and private foundations to Roswell Park researchers are included:
 - A two-year, \$360,000 Peter T. Rowley Breast Cancer Project grant to Sharon Evans, PhD, Professor of Oncology and Immunology in the Department of Immunology, funded by the New York State Department of Health to investigate mechanisms that lead to immunotherapy treatment failure in aggressive breast cancer.
 - Xinjiang Wang, PhD, Assistant Professor of Oncology in the Department of Pharmacology & Therapeutics, received a new five-year, \$1.9 million grant from the NCI for his investigation into how a newly identified small-molecule inhibitor, MMRi36, can target MDM2-MDM4 E3 ligase in the treatment of drug-resistant lymphoma.
 - Anna Woloszynska-Read, PhD, Assistant Professor of Oncology in the Department of Pharmacology & Therapeutics, received a three-year, \$1.2 million grant from the U.S. Department of Defense for her investigation into genetic and epigenetic tumor alterations in African-American men diagnosed with early-onset prostate cancer. Her work aims to understand why African-Americans, more than any other racial or ethnic group, are diagnosed with prostate cancer more frequently, at an earlier age, with larger tumors and with more aggressive disease, and are more likely to die from the disease.

- Kazuaki Takabe, MD, PhD, FACS, Chief of Breast Surgery and Alfiero Foundation Endowed Chair in Breast Oncology, received a one-year, \$295,970 grant from the NCI for research on the signaling lipid sphingosine-1 phosphate in breast cancer progression and lymphangiogenesis. Dr. Takabe also received a one-year, \$164,485 grant from the Susan G. Komen Foundation for his investigation into the role of the tumor and/or host sphingosine-1 phosphate in the generation of new blood vessels and new lymph vessels in cancer metastasis.
- Renuka Iyer, MD, Professor of Oncology and Co-Director of the Liver and Pancreas Tumor Center, received a five-year, \$205,455 subcontract award from Case Western Reserve University, part of a larger NCI grant to test novel PET probes for imaging liver cancer proliferation.
- James Mohler, MD, Associate Director and Senior Vice President for Translational Research and Chair of the Department of Urology, received a five-year, \$138,725 subcontract award from Vanderbilt University, part of a larger grant from the National Institute of Diabetes and Digestive and Kidney Diseases, for research into the reasons many men who are treated for enlarged prostate respond poorly to Proscar (finasteride) or Avodart (dutasteride). This project aims to predict which patients will fail treatment in order to spare them unnecessary medication and determine better options. Dr. Mohler's contribution includes measuring prostate testosterone levels and providing antibodies against the medications' enzyme targets.
- Dean Tang, PhD, Chair of the Department of Pharmacology & Therapeutics, received a 15-month, \$92,433 grant from the Roswell Park Alliance Foundation to test several novel strategies against prostate cancer that focus on androgen receptor-negative cancer cells, which may represent a critical source of therapy resistance and tumor relapse.
- Roswell Park Graduate Student Honored by National Cancer Institute
 Roswell Park Comprehensive Cancer Center immunology graduate student Danielle Twum received
 the prestigious Emerging Scholars Award from the National Cancer Institute (NCI), recognizing her
 among the distinguished alumni of its Continuing Umbrella for Research Excellence (CURE)
 programs. The CURE programs are supplemental funding mechanisms that support students from
 underrepresented minorities in their training in the cancer sciences.
- Roswell Park Employee Earns Black Achiever in Industry Award
 Nancy Crenshaw, BSN, RN, MT, MA, Clinical Research Services Senior Administrator overseeing the Clinical Research Support and Correlative Science Pathology Office earned the recognition of Black Achiever in Industry. Nancy was honored at the 45th Annual Awards gala event at the Adam's Mark Hotel.
- Roswell Park's Dr. Sai Yendamuri Honored by European Society of Thoracic Surgeons
 Sai Yendamuri, MD, FACS, Chair of the Department of Thoracic Surgery at Roswell Park
 Comprehensive Cancer Center, received a prestigious award at an international gathering of
 thoracic surgeons. Dr. Yendamuri was awarded the Brompton Prize, for the year's best thoracic
 abstract, manuscript and presentation of new research, from the European Society of Thoracic
 Surgeons (ESTS). Of approximately 250 abstracts accepted for presentation, six are selected for the
 Brompton Session, during which a panel of judges score the presentations and award the coveted
 prize to the top one.

Roswell Park Deputy Director Named to NIH Immunology Grant Review Board
Kunle Odunsi, MD, PhD, FRCOG, FACOG, Deputy Director of Roswell Park Comprehensive Cancer
Center, was appointed to the Transplantation, Tolerance and Tumor (TTT) Immunology Study
Section within the National Institutes of Health (NIH) Center for Scientific Review. The TTT section is
the panel of peer reviewers who consider applications to the NIH for funding related to studies of
immune-related transplant rejection, basic mechanisms of acquired immune tolerance and studies
of tumor immunology and vaccine development.

Roswell Park Radiation Medicine Professional Named President-Elect of International Professional Association

Lee Hales, BS, CMD, Chief Medical Dosimetrist in the Department of Radiation Medicine at Roswell Park Comprehensive Cancer Center, was named to a one-year term as President-Elect of the American Association of Medical Dosimetrists (AAMD), an international professional organization with approximately 4,000 members. He expects to serve the organization as a leader for three years, including successive terms as president and past president.

Roswell Park Named a U.S. News 'Best Hospital' For Cancer

Roswell Park Comprehensive Cancer Center was named a 2017–18 Best Hospital for cancer by U.S. News & World Report. The Buffalo, N.Y., comprehensive cancer center was ranked by the news outlet as 33rd among nearly 900 cancer hospitals reviewed nationwide, and was also recognized as high-performing within two other categories: urology and lung cancer surgery. The annual Best Hospitals rankings, now in their 28th year, are designed to help patients make informed decisions. Roswell Park is the only facility in Western and Central New York State to be included on the Best Hospitals—Cancer list for 2017–18. Only 152 hospitals, or 3% of the more than 4,500 centers evaluated nationwide, were ranked in even one of the 16 main specialties this year.

Roswell Park Named to 'Great Oncology Programs' List for 2017

Roswell Park Comprehensive Cancer Center was once again named to Becker's Hospital Review's 100 Hospitals and Health Systems with Great Oncology Programs, an annual list of centers that are national leaders in patient care, cancer outcomes and research.

"The hospitals featured on this list have a reputation for innovation and expertise in treating cancer patients," the news outlet notes. "Many of the hospitals and health systems included on this list incorporate the latest technology to improve outcomes into their programs while also ensuring a superior patient experience." In selecting facilities for the Great Oncology Programs feature, the Becker's editorial team analyzed data from sources including the U.S. News & World Report cancer care rankings, CareChex cancer care rankings, BlueCross BlueShield Association Blue Distinction Cancer designation, National Cancer Institute designations and American College of Surgeons Commission on Cancer accreditation and awards.

Roswell Park Awarded Five-Year Contract to Continue Operating New York State Smokers' Quitline

For many smokers fighting tobacco addiction, an encouraging voice on the other end of the phone is the difference-maker that helps them to quit smoking for good — often after a series of unsuccessful quit attempts. For the last 17 years, New Yorkers have relied on support available on demand, when they needed it most, at the other end of a phone connection or through a wealth of online cessation resources. Thanks to a continuing initiative of the New York State Department of

Health and the awarding of a contract to Roswell Park Comprehensive Cancer Center, the services of the New York State Smokers' Quitline (NYSSQL) will be there for New Yorkers to turn to for years to come.

This five-year, \$20.6 million contract enables Roswell Park Comprehensive Cancer Center to provide comprehensive telephonic services, online resources and services for healthcare providers, all geared to help tobacco users successfully quit. The grant supports approximately 50 jobs, including 15 new positions created to address an expanded need for services and help meet high-priority needs, such as helping those who have additional struggles overcoming tobacco dependence because of income level, education level and/or mental and behavioral health issues. The Quitline team will also work to expand outreach and resources for health providers toward the goal of helping more users to quit tobacco successfully.

Roswell Park Draws More Than \$6.8 Million for Research on New Treatments and Supportive-Care Approaches

Researchers at Roswell Park Comprehensive Cancer Center received more than \$6.8 million in grant awards to support six specific projects aimed at improving supportive care and developing new immunotherapy and targeted therapy treatment approaches. The largest individual award, a \$3.6 million grant from the National Cancer Institute (NCI), was awarded to **Elizabeth Gage-Bouchard**, **MA, PhD,** Associate Professor of Oncology in the Department of Cancer Prevention and Control.

- Another grant funds research into how outside factors may impact cancer patients. James
 Mohler, MD, Associate Director and Senior Vice President of Translational Research,
 received a three-year, \$590,506 grant from the U.S. Department of Defense for his
 investigation into whether financial distress causes patients with prostate cancer to alter or
 delay treatment that may compromise survival.
- Jianmin Zhang, PhD, Associate Professor of Oncology in the Department of Cancer Genetics and Genomics, received \$2 million from the NCI for a five-year R01 project exploring an underlying mechanism of how breast cancers begin and progress, focusing on the role of a protein known as TAZ in regulating and suppressing breast cancer stem cells.
- Mikhail Nikiforov, PhD, Professor of Oncology and Member of the Department of Cell Stress Biology, received \$417,840 from the NCI for a three-year project to develop a new anticancer drug for malignant melanoma, one of the most aggressive forms of cancer, that target the oncoprotein MYC.
- Joseph Barbi, PhD, Assistant Professor in the Department of Immunology, received two recent grants to support his research into a newly identified molecule called neuritin and how it may suppress the immune system, allowing cancer to develop and grow. Dr. Barbi received a two-year career development award of \$100,000 from The Melanoma Research Foundation to explore how targeting neuritin may improve anti-melanoma immunotherapy. He also received a one-year, \$54,125 grant from the Phi Beta Psi sorority supporting his studies of how neuritin affects the immune response to ovarian tumors.
- Elizabeth Repasky, PhD, Professor of Oncology in the Department of Immunology, received a one-year, \$50,000 grant from The Breast Cancer Coalition of Rochester for her research

- designed to identify mechanisms by which chronic stress can lead to diminished immune protection against breast cancer tumors and metastasis.
- Another recent grant, awarded to Sandra Gollnick, PhD, Director of the Photodynamic Therapy Center, Member of the Department of Cell Stress Biology and Distinguished Professor in the Department of Immunology, will enable the creation of an international registry compiling information about patients' responses to photodynamic therapy (PDT), an approach developed at Roswell Park that is now used in the treatment of many lung, esophageal, head and neck, pancreatic, and mesothelioma tumors.
- Health-Promotion Efforts Earn Native American Researcher Dr. Rodney Haring a National Award Roswell Park Comprehensive Cancer Center researcher and faculty member Rodney Haring, PhD, MSW, was recognized with a 2017 Area/Regional Impact Award from the National Indian Health Board (NIHB). The award, presented Sept. 27, 2017, in Bellevue, Washington, at the NIHB's annual awards gala, recognizes efforts to improve the health of the American Indian and Alaska Native community, as well as contributions that go above and beyond the call of service.
- Roswell Park Patients Will Have Expanded Access to Medical Records Through NYS Health Foundation Grant

A new grant will enable easier, more interactive access to medical records for Roswell Park Comprehensive Cancer Center patients. The comprehensive cancer center will become one of the first centers anywhere in New York State to implement the OpenNotes concept and integrate notesharing into its secure digital portal, MyRoswell, thanks to a \$125,000 award from the New York State Health Foundation.

 Sustained Top 5% Ranking for Inpatient Satisfaction Earns Roswell Park A Coveted National Distinction

Roswell Park Comprehensive Cancer Center was again honored by the Press Ganey organization for consistent superior performance in the area of patient experience. The comprehensive cancer center received Press Ganey's Guardian of Excellence Award for the third year in a row based on its sustained ranking among the top 5% of hospitals for patient satisfaction related to inpatient care. The rankings are based on the Hospital Consumer Assessment of Healthcare Providers and Systems survey, a tool administered by the Centers for Medicare and Medicaid Services to document patients' perceptions about the hospital care they have received.

Roswell Park Investigators Awarded More than \$1 Million in Donor Support to Obtain Pilot Data
Fourteen promising preliminary cancer research projects at Roswell Park Comprehensive Cancer
Center received a total of \$1,342,938 from the Roswell Park Alliance Foundation, the 501(c)(3) notfor-profit organization that raises funds and manages all donations made to Roswell Park. Nine
grants went to researchers who received a portion of the funds following a competitive peer-review
process that is led by the Foundation.

The researchers submitted their project proposals to the Alliance Foundation's Scientific Advisory Committee (SAC), made up of objective Roswell Park scientists, who scored the applications and selected the projects that would receive funding based on their potential to find cancer cures and save lives.

The fall 2017 request for applications solicited and received 51 applications. Here are the nine that were selected by the SAC to receive grant awards, totaling \$897,357:

- Fumito Ito, MD, PhD, Department of Surgical Oncology and Center for Immunotherapy, received \$100,000 for his project "The chemokine receptor CX3CR1-guided cancer immunotherapy."
- 2. **Elizabeth Repasky, PhD,** Department of Immunology, received \$100,000 for her project "Adrenergic signaling at the crossroads of cancer and aging: Mechanisms and implications."
- 3. **Dean Tang, PhD,** Department of Pharmacology and Therapeutics, received \$100,000 for his project "Novel therapeutic strategies to co-target undifferentiated prostate cancer stem cells and bulk prostate cancer cells."
- 4. **Marc Ernstoff, MD**, Department of Medicine, received \$98,362 for his project "A phase Ib/II study of propranolol with fixed-dose pembrolizumab in patients with unresectable stage III and IV melanoma."
- 5. **Michael Ciesielski, PhD,** Department of Neurosurgery, received \$100,000 for his project "Development of a surface-survivin targeted CAR-T cell immunotherapeutic."
- 6. **Sharon Evans, PhD,** Department of Immunology, received \$100,000 for her project "Novel mechanism of intravascular immune suppression in cancer."
- 7. **Scott Olejniczak, PhD,** Department of Immunology, received \$100,000 for his project "Novel role for Ars2-directed nuclear RNA processing in support of adoptive T-cell immunotherapy."
- 8. **Asoke Mal, PhD**, Department of Cell Stress Biology, and Eugene Yu, PhD, Department of Cancer Genetics and Genomics, received \$98,995 for their project "Developing a universal CRISPR/Cas9-facilitated chromosome engineering technology for precise modeling of any chromosomal translocation/fusion oncoprotein-associated human tumors."
- Boyko Atanassov, PhD, Department of Pharmacology and Therapeutics, and Yuesheng Zhang, MD, PhD, Department of Pharmacology and Therapeutics, received \$100,000 for their project "Targeting EGFR in triple negative breast cancer."

Through separately managed processes, the Foundation also awarded funds to support research efforts for the following investigators. All were determined to be strategic priorities associated with the Cancer Center Support Grant:

- 1. **Rodney Haring, PhD, MSW**, Department of Cancer Prevention and Control, and Eliza Rodriguez, PhD, MS, Department of Cancer Prevention and Control, received \$45,581 for their project "Strengthening knowledge for future generations: Cancer bio-banks in the landscapes of the Haudenosaunee."
- 2. **Andrei Gudkov, PhD, DSci**, Department of Cell Stress Biology, received \$100,000 for development of a P01 with several Cell Stress and Biophysical Therapies program members.

- 3. **Boyko Atanassov, PhD**, Department of Pharmacology and Therapeutics; Michael Feigin, PhD, Department of Pharmacology and Therapeutics; and Christos Fountzilas, MD, Department of Medicine, each received \$33,333 for their respective research projects within the Experimental Therapeutics program.
- 4. **John Krolewski, MD, PhD**, Department of Cancer Genetics and Genomics, will oversee the \$100,000 to be used by Genetics and Genomics program members for developing a Roswell-specific pipeline for next-generation sequencing.
- Christine Ambrosone, PhD, Department of Cancer Prevention and Control, will oversee \$100,000 for the Population Sciences program members as they focus on exercise interventions in cancer patients.

These projects were made possible through the generosity of Roswell Park supporters, including individual gifts and donations to events like The Ride For Roswell, Goin' Bald for Bucks, Empire State Ride and Team Roswell. Learn more about the funding process at RoswellPark.org/Giving.

• 40 Roswell Park Physicians Named Among America's Top Doctors

Forty doctors at Roswell Park Comprehensive Cancer Center were recognized by Castle Connolly Medical Ltd. as America's Top Doctors®. The annual directory offered by the health care research and information company is designed to help guide consumers to America's top doctors. The list is the result of an extensive survey process of thousands of American doctors. A physician-led team of researchers then screens the physicians' education and professional experience before making final selections.

- **Ilene Rothman, MD**, Interim Chair of Dermatology; recognized for special expertise in pediatric dermatology, atopic dermatitis and skin cancer
- Alan Klitzke, MD, Assistant Professor of Oncology in the Department of Diagnostic Radiology
- **Joseph Torre, MD**, consulting physician; recognized for special expertise in preventive medicine, obesity, diabetes and cholesterol/lipid disorders
- Kunle Odunsi, MD, PhD, Deputy Director, Chair of Gynecologic Oncology and Executive Director of the Center for Immunotherapy; recognized for special expertise in ovarian cancer, gynecologic cancers, immunotherapy and clinical trials
- Shashikant Lele, MD, Clinical Chief of Gynecologic Oncology and Clinical Chair of the Division of Surgical Subspecialties; acknowledged for special expertise in ovarian cancer, reconstructive surgery and complex pelvic surgery
- Mohamed Ahmed, MD, PhD, Medical Director of Roswell Park Hematology Oncology of Niagara; recognized for special expertise in hematologic malignancies
- **Philip McCarthy, MD**, Director of the Blood and Marrow Transplant Center and Professor of Oncology and Internal Medicine; recognized for special expertise in bone marrow transplants, multiple myeloma, aplastic anemia, leukemia and lymphoma
- Amy Allen Case, MD, Chair of the Department of Supportive Care and Associate Professor of Oncology
- **Brahm Segal, MD,** Chief of Infectious Diseases and Director of Faculty Development; recognized for special expertise in immune deficiency and infections in cancer patients
- Martin Mahoney, MD, PhD, Professor of Oncology in the Departments of Medicine and Health Behavior; recognized for special expertise in lung cancer, thoracic cancers and unknown primary cancer

- Amy Early, MD, Associate Professor of Oncology in the Department of Medicine; recognized for special expertise in breast and lung cancer
- Ellis Levine, MD, Chief of Breast Medicine and Professor of Oncology in the Department of Medicine; acknowledged for special expertise in breast cancer, and bladder, prostate, and testicular cancer
- Francisco Hernandez-Ilizaliturri, MD, Chief of Lymphoma and Myeloma; recognized for special expertise in lymphoma and Hodgkin lymphoma
- Frederick Hong, MD, Medical Oncologist/Hematologist at Roswell Park Hematology Oncology Northtowns; recognized for special expertise in solid tumors and hematologic malignancies
- Maureen Ross, MD, PhD, Professor of Oncology and Blood and Marrow Transplantation; recognized for special expertise in leukemia, multiple myeloma, blood and marrow transplants, and hematologic malignancies
- Michael Krabak, MD, PhD, Medical Oncologist/Hematologist at Roswell Park Hematology Oncology Northtowns; recognized for special expertise in solid tumors and hematologic malignancies
- **Tracey O'Connor, MD,** Associate Professor in the Department of Medicine; recognized for special expertise in breast cancer and clinical trials
- **Robert Fenstermaker, MD**, Chair of Neurosurgery and Director of the Neuro-Oncology Program; recognized for special expertise in brain tumors, pituitary tumors, stereotactic radiosurgery and skull-base surgery
- **Robert Plunkett, MD,** Associate Professor of Neurosurgery; acknowledged for special expertise in Parkinson's disease, spasticity and movement disorders, brain tumors and stereotactic radiosurgery
- Laszlo Mechtler, MD, Chief of the Department Neuro-Oncology; recognized for special expertise in brain tumors, headache and pain management
- **Dominick Lamonica, MD**, Assistant Professor and Director of Nuclear Medicine; acknowledged for special expertise in thyroid cancer, lymphoma, non-Hodgkin lymphoma, radioimmunotherapy of cancer and PET Imaging
- Wesley Hicks, MD, Chair of Head & Neck/Plastic & Reconstructive Surgery; recognized for special expertise in head and neck cancer, surgery, and reconstruction
- Oscar de Leon-Casasola, MD, Chair of the Department of Anesthesiology and Pain Medicine; acknowledged for special expertise in cancer pain
- **Glenn Leonard, MD**, consulting physician; recognized for special expertise in congenital heart disease
- Barbara Bambach, MD, Associate Professor of Pediatric Oncology; recognized for special expertise in bone marrow and stem cell transplant, and leukemia
- **Denise Rokitka, MD,** Director of the Pediatric Long-Term Follow-Up Clinic and Assistant Professor of Pediatric Oncology; recognized for special expertise in the late effects of therapy in cancer survivors
- Meghan Higman, MD, PhD, Assistant Professor of Pediatrics; recognized for special expertise in Hodgkin lymphoma, blood and marrow transplant, and stem cell transplant
- Anurag Singh, MD, Professor of Oncology and Director of Radiation Research in the Department of Radiation Medicine; recognized for special expertise in head and neck cancer, lung cancer, prostate, and breast cancer
- Michael Kuettel, MD, PhD, Chair of Radiation Medicine; recognized for special expertise in prostate cancer

- **Dheerendra Prasad, MD**, Medical Director of the Department of Radiation Medicine and Director of Central Nervous System and Pediatric Radiation Medicine; recognized for special expertise in stereotactic radiosurgery, brain tumors, spinal cord tumors and trigeminal neuralgia
- Boris Kuvshinoff, MD, Chief Medical Officer and Professor of Oncology in the Department of Surgical Oncology; recognized for special expertise in gastrointestinal cancer, neuroendocrine tumors, pancreatic and liver cancer
- John Kane, MD, Chief of Melanoma/Sarcoma and Chair of Surgical Oncology; acknowledged for special expertise in melanoma, sarcoma-soft tissue and Merkel cell carcinoma
- **Steven Hochwald, MD**, Chief of Gastrointestinal Surgery and Vice Chair of Surgical Oncology; recognized for special expertise in colon and rectal cancer, esophageal cancer, liver and pancreatic cancer
- Anthony Picone, MD, PhD, Professor of Oncology in the Department of Thoracic Surgery; recognized for special expertise in lung cancer, esophageal cancer, carcinoid tumors and cardiac surgery
- Chukwumere Nwogu, MD, PhD, Professor of Oncology and Attending Surgeon in the Department of Thoracic Surgery; acknowledged for special expertise in minimally Invasive surgery, lung cancer, esophageal cancer, robotic surgery
- Mark Hennon, MD, Associate Professor of Oncology in the Department of Thoracic Surgery; recognized for special expertise in lung and esophageal cancer
- **Khurshid Guru, MD**, Chair of Urology and Director of Robotic Surgery; recognized for special expertise in robotic surgery, and bladder and prostate cancer
- Eric Kauffman, MD, Assistant Professor of Oncology in the Departments of Urology and Cancer Genetics; recognized for special expertise in prostate and kidney cancer
- James Mohler, MD, Chief of Inter-Institutional Academics and Professor of Oncology in the Department of Urology; recognized for special expertise in prostate cancer and robotic surgery
- Thomas Schwaab, MD, PhD, Chief of Strategy, Business Development and Outreach and Professor of Oncology in the Departments of Urology and Immunology; recognized for special expertise in bladder, kidney, prostate and testicular cancer

Sudha Bommidi Named to 2017 Class of 40 Under Forty

Sudha Bommidi, MBA, CPHQ, CSSBB, FACHE, Executive Director of Clinical Services, was named to the 2017 *Buffalo Business First* "40 Under Forty" list. Nominated by Candace Johnson, PhD, she was selected by a panel of previous award winners among more than 160 nominations.

Buffalo Bills Alumni Foundation's "Cure the Blue" Prostate Cancer Initiative Presented \$100,000 Donation to Roswell Park

The Buffalo Bills Alumni Foundation made a \$100,000 donation – the largest donation in the Foundation's history – to Roswell Park Comprehensive Cancer Center in support of prostate cancer research.

Buffalo Bills Alumni Foundation President and Bills Wall of Famer, Booker Edgerson, along with other Bills Alumni, made the official check presentation to Roswell Park's President and CEO, Candace S. Johnson, PhD, as part of the Alumni's major healthcare initiative called "Cure the Blue."

Sponsored by the Buffalo Bills Alumni Foundation, the Cure the Blue Program has become one of the Buffalo area's most comprehensive efforts to help promote prostate cancer awareness programs. The gift will support research efforts led by Adam Sumlin, PhD, MBA, Assistant Professor of Oncology at Roswell Park. Dr. Sumlin's work in prostate cancer research focuses on strategies for

early detection and understanding and addressing disparities in how cancer affects different groups of people.

International Accreditation Reaffirms Excellence of Roswell Park's Blood and Marrow Transplant Center

The blood and marrow transplant (BMT) program at Roswell Park Comprehensive Cancer Center was accredited by the Foundation for the Accreditation of Cellular Therapy (FACT) for the fifth consecutive time. The recognition reaffirms that the cancer center's BMT program meets or exceeds the organization's high standards for patient care and laboratory services. FACT is an internationally recognized accrediting body for hospitals and medical institutions offering cellular therapies. Roswell Park was first accredited by FACT in 2002 and has held the designation continuously, with successful reinspections every three years.

- Roswell Park, Oneida Healthcare Receive \$500,000 Donation to Collaborative Campaign
 The Howard & Bess Chapman Charitable Corporation announced a half-million dollar gift to Oneida
 Healthcare (OHC) and Roswell Park Comprehensive Cancer Center. The gift will support a
 collaborative capital campaign aiming to bring comprehensive cancer care closer to home for
 residents of Oneida, N.Y. and the surrounding area.
- Patrick P. Lee Gives \$4 Million to Leading Organization in Son's Memory
 Patrick P. Lee made a personal gift to Roswell Park Comprehensive Cancer Center totaling \$2 million.
 The gift established an endowed chair to support Roswell Park's Palliative and Supportive Care program. The gift was made in memory of Lee's late son, Patrick "Pat" Warn Lee.

Scott Bieler Clinical Sciences Center Wins Urban Land Institute Award

The Urban Land Institute (ULI) New York has honored the Scott Bieler Clinical Sciences Center with an Award for Excellence in Institutional Development. The Awards for Excellence recognize outstanding development projects in the private, public and nonprofit sectors across New York State that best exemplify ULI's commitment to responsible land use and creating sustainable, thriving communities. The Awards recognize the full development process of a project, not just its architecture or design. The Bieler Center was designed and constructed under the direction of architects at FXCollaborative. It opened in 2016 with improvements to clinical and chemotherapy spaces that transformed patient care at Roswell Park.

Roswell Park President & CEO Tops Power 100 Women List

Candace S. Johnson, PhD, was recognized for her leadership and vision with the No. 1 position in *Buffalo Business First's* annual Power 100 Women list. In addition to Dr. Johnson, several additional Roswell Park-affiliated women were ranked this fiscal year:

- No. 27: Norma Nowak, PhD Associate Professor of Oncology, Department of Cancer Genetics;
 Executive Director, New York State Center of Excellence in Bioinformatics and Life Sciences; and Founder/Chief Scientific Officer, Empire Genomics, LLC
- No. 76: Anne Gioia and Donna Gioia Trustees and Founders of the Roswell Park Alliance Foundation
- No. 82: Nora Sullivan Chair, Technology Transfer Committee of Roswell Park's Board of Directors
- No. 92: Linda Dobmeier Member of Roswell Park's Board of Directors

• The DAISY Award is an international program that rewards and celebrates the extraordinary clinical skill and compassionate care given by nurses every day. RPCI is proud to be a DAISY Award Partner, recognizing one inpatient and one ambulatory nurse with this special honor every quarter. Among this year's Daisy Award winners were: Corry Catalano RN, Mike Martorana RN, Leah Rivas RN, Kim Vuocolo RN, Bonnie Welch, RN and Martha Bently-McLachlan RN.. Nominations for these awards are submitted by patients and their loved ones, as well as to faculty and staff.

Clinical & Scientific Achievements

 Redefining Tamoxifen for Breast Cancer: Insights From Roswell Park-Northwestern University Research

Tamoxifen is widely used for the treatment of women diagnosed with certain types of early and advanced breast cancers, but not all patients will benefit from it. A team from Roswell Park Comprehensive Cancer Center and Northwestern University examined the mechanisms behind tamoxifen resistance. Their findings were presented in a talk at the American Association for Cancer Research (AACR) Annual Meeting 2017 in Washington, D.C. Gokul Das, PhD, Associate Professor of Oncology in the Department of Pharmacology & Therapeutics and Co-Director of the Breast Disease Site Research Group at Roswell Park, is the senior author and Swati Kulkarni, MD, of Northwestern University is first author of "Novel effect of tamoxifen therapy: disruption of ER-p53 interaction leading to altered gene expression profile in human breast tumors" (abstract CT012), presented as part of the Clinical Trials Minisymposium on Sunday, April 2.

- Roswell Park Appoints Chair of Cancer Genetics and Genomics
 John Krolewski, MD, PhD, was appointed as Chair of the Department of Cancer Genetics and
 Genomics and Co-Leader of the Cancer Center Support Grant (CCSG) Genetics and Genomics
 Program at Roswell Park Comprehensive Cancer Center. He also holds the John & Santa Palisano
 Endowed Chair of Cancer Genetics and Genomics. Dr. Krolewski has served as Interim Chair of the
 Department of Genetics and Interim Leader of the CCSG Genetics Program at Roswell Park since
 March 2016.
- Roswell Park Team Identifies Potential Biomarker for Aggressive Prostate Cancer
 Roswell Park Comprehensive Cancer Center researchers have identified a gene that influences
 metastasis in prostate cancer, and may help clinicians to identify aggressive prostate tumors before
 they progress and spread to other organs. They presented results of this research at the American
 Association for Cancer Research (AACR) Annual Meeting 2017 in Washington, D.C. The 5-year
 survival rate from prostate cancer has risen to 98%, yet aggressive prostate cancers continue to
 claim lives. Using an unconventional approach focused on off-target data from two genome-wide
 RNA interference (RNAi) screens, Roswell Park scientists identified disrupted genes that increased
 metastasis in both cell cultures and laboratory models of cancer. Henry Withers, a doctoral
 candidate in the Department of Cancer Genetics, is the first author and Irwin Gelman, PhD, also of
 the Department of Cancer Genetics, is the senior author of "Characterization of an off-target RNAi
 genomic screen hit identifies GPRC6A as a novel suppressor of metastatic chemotaxis and
 invasiveness" (late-breaking poster LB-148), presented on Monday, April 3.

- New Adoptive Cell Therapy Immunotherapy Approach Ready for Clinical Trials

 Roswell Park Comprehensive Cancer Center researchers plan to test a novel adoptive cell immunotherapy platform in phase I/II clinical trials after seeing promising results in preclinical studies. They presented the findings of that preliminary research at the American Association for Cancer Research (AACR) Annual Meeting 2017 in Washington, D.C. Richard Koya, MD, PhD,

 Associate Director of the Center for Immunotherapy (CFI) at Roswell Park, is the first author on this new work, and the Deputy Director of the Institute and Executive Director of the CFI, Kunle Odunsi, MD, PhD, is the senior author of "Sustained efficacy of immunotherapy for solid tumors with novel dual CD4/CD8 T cell receptor engineered synergistic combination of hematopoietic stem cells and T cells" (late-breaking poster LB-186). The study demonstrated a unique approach to adoptive cell transfer, a form of immunotherapy in which a patient's own immune cells are drawn from blood, genetically engineered, multiplied and injected back into the patient in order to stimulate a sustained attack against cancer.
- Roswell Park Physician Leads Collaborative U.S.—Japan Oncology Workshop Scientifically compelling breast cancer clinical-trial research is the focus of the 5th U.S.—Japan Clinical Trials in Oncology Workshop, led in part by Kazuaki Takabe, MD, Professor, Alfiero Foundation Endowed Chair in Breast Oncology and Clinical Chief of Breast Surgery at Roswell Park Comprehensive Cancer Center. The conference, co-sponsored by the Embassy of Japan and the Japan Agency for Medical Research and Development, was held April 6, 2017 in Washington, D.C. The workshop was an opportunity to further collaborations among U.S. and Japanese academics, cancer center investigators and Japanese physician-researchers visiting the United States.
- Elyse NeMoyer Reappointed to Roswell Park Comprehensive Cancer Center Board of Directors
 Cancer survivor and health professional Elyse NeMoyer has been reappointed to a second threeyear term on the Roswell Park Comprehensive Cancer Center Board of Directors. An occupational
 therapist, the longtime Orchard Park, N.Y. resident was appointed by state Sen. Andrea StewartCousins, Democratic Conference Leader for the New York State Senate, based on the
 recommendation of state Sen. Timothy Kennedy. NeMoyer is a staff occupational therapist with
 Aspire of Western New York. Her work history includes past roles with People Inc.'s Day Treatment
 Center, the University at Buffalo School of Occupational Therapy, Oishei Children's Hospital of
 Buffalo and the West Seneca Developmental Center.
- Epidemiological Analysis Shows Unexpected Benefit Related to High Blood Pressure for Many with Ovarian Cancer
 - Hypertension, or high blood pressure, may come with a plus side, at least for a subset of women with ovarian cancer. New research from epidemiologists at Roswell Park Comprehensive Cancer Center, published in the journal *Cancer Causes & Control*, provides evidence that hypertension and diabetes and the use of medications to treat these common conditions may influence the survival of ovarian cancer patients sometimes in a detrimental way, but in the case of hypertension medications, perhaps as a benefit. Using pooled data from 15 studies that were part of the Ovarian Cancer Association Consortium, an international team of collaborators led by **Kirsten Moysich**, **PhD**, **MS**, and **Albina Minlikeeva**, **PhD**, **MPH**, retroactively examined the associations between survival among patients diagnosed with invasive epithelial ovarian cancer and those patients' history of hypertension, heart disease, diabetes, and medications taken for those conditions.
- Philanthropist and Civic Leader Anne Gioia Reappointed to Roswell Park Comprehensive Cancer Center Board of Directors

Philanthropist, fundraiser and civic leader Anne D. Gioia was reappointed to a seventh term on the Roswell Park Comprehensive Cancer Center Board of Directors. A former teacher who co-founded the Roswell Park Alliance Foundation after experiencing a devastating personal loss, she was reappointed to the board by state Sen. John J. Flanagan, New York State Senate Majority Leader, based on the recommendations of state Sens. Patrick Gallivan and Michael H. Ranzenhofer. Gioia's decades of dedication in support of Roswell Park's mission to understand, prevent and cure cancer originated from tragedy: the death of her daughter, Katherine, age 5, to a rare pediatric cancer in 1989. Two years later, Anne Gioia and her sister-in-law, Donna Gioia, together established the Roswell Park Alliance Foundation, a not-for-profit organization that has since grown into one of the most successful fundraising organizations in Western New York, raising more than \$330 million for research with a focus on improving the quality of life for cancer patients.

- Roswell Park-Led Team Identifies Tumor Marker for Aggressive Ovarian Cancer Patients who expressed the tumor antigen NY-ESO-1 had more aggressive cancers and were more likely to die early from their disease, according to a large study conducted by Roswell Park Comprehensive Cancer Center researchers and published in the journal *Gynecologic Oncology*. "This is the largest study of NY-ESO-1 expression in ovarian cancer patients, and the first time that expression of this antigen has been identified as a marker for more aggressive disease," says the study's first author, J. Brian Szender, MD, MPH, Fellow in the Department of Gynecologic Oncology at Roswell Park.
- Immunotherapy Expert Dr. Pawel Kalinski Joins Roswell Park Comprehensive Cancer Center Pawel Kalinski, MD, PhD, has joined Roswell Park Comprehensive Cancer Center as Vice Chair for Translational Research within the Department of Medicine and Director of Cancer Vaccine and Dendritic Cell Therapies within the Center for Immunotherapy. Dr. Kalinski, who has distinguished himself with important research on the immune system and its implications for cancer therapy, joins Roswell Park from the Hillman Cancer Center at the University of Pittsburgh, and will hold the additional titles of Rustum Family Endowed Professor for Molecular Therapeutics and Translational Research, Professor of Oncology and Co-Leader of the Tumor Immunology & Immunotherapy Program. Dr. Kalinski's research interests focus on the biology of dendritic cells, T-cells and tumor microenvironment-associated myeloid cells. His work will contribute to ongoing important research at Roswell Park's Center for Immunotherapy through the development of dendritic cell vaccines and dendritic cell-induced T-cells, two types of personalized immunotherapy that use patients' own immune cells to eliminate cancer cells.
- Research Supports Use of Enhanced Recovery Approaches in More Abdominal Surgeries
 Roswell Park Comprehensive Cancer Center researchers demonstrated that an approach shown to
 improve outcomes for patients receiving colorectal surgery is just as effective in patients requiring
 many other abdominal and pelvic operations. Their findings, published in the journal *Annals of Surgery*, support the conclusion that Enhanced Recovery After Surgery (ERAS) programs are safe
 and beneficial for a broad range of patients with surgically treatable diseases while also decreasing
 both length of stay and cost of care.

The ERAS approach was developed in the late 1990s as a way to maximize clinical outcomes for patients undergoing surgery. These pathways, or systems of reproducible best practices and clinical interventions, were first applied and studied in patients receiving surgery to remove cancerous colorectal tumors, and involve steps taken before, during and after surgery. ERAS elements employed at many medical centers worldwide include patient counseling, carbohydrate loading,

antimicrobial prophylaxis, use of short-acting anesthetics, minimal use of drains and nasogastric tubes, control of body temperature, early catheter removal, minimizing use of opioid analgesics and stimulation of the gut to encourage return of normal bowel function.

Working with colleagues from the Roswell Park departments of Surgical Oncology and Biostatistics and Bioinformatics, **Steven Nurkin, MD, MS, FACS**, and **Anthony Visioni, MD**, performed a meta-analysis of 39 studies involving more than 6,500 patients. They reviewed the impact of "enhanced recovery after surgery" or "fast track" approaches in major abdominal and pelvic surgeries, including procedures to remove, in part or in whole, the liver, pancreas, stomach, esophagus, genitourinary and reproductive organs.

Roswell Park Nursing Teams Present New Research at Oncology Nursing Society Annual Congress
 More than 10 nursing teams from Roswell Park Comprehensive Cancer Center were invited to
 present their research at the 42nd Annual Congress of the Oncology Nursing Society (ONS) May 4–7,
 2017, in Denver, Colorado.

Among those nurse teams that presented research at the ONS Annual Congress were the three groups whose projects are outlined below.

- For their presentation "Developing a Predictive Risk Tool for Delineating Hospital Acquired Pressure Injuries (HAPI) at End of Life and Further Defining the Unavoidable HAPI" (abstract 22.3), Anna Foster, RN, BSN, OCN, and Jennifer Lindemann, MS, RN, of the Department of Nursing at Roswell Park investigated risk factors associated with the development of hospitalacquired pressure injuries (HAPI) at the end of life with the goal of creating a predictive risk tool.
- 2. **Toulon O'Connor, RN, AAS**, of the Department of Ambulatory Services at Roswell Park, is first author of "Weathering the Storm: Efforts to Increase Nurse Job Satisfaction, Retention, and Patient Care During Turbulent Times" (abstract 7.5). This study reports the efforts of a unit-based council to address job satisfaction concerns and facilitate problem-solving in an ambulatory clinic.
- 3. "Keeping Patients Connected: The Role of the Community Liaison" (abstract 9.5) explores the benefits of appointing a community liaison nurse practitioner and/or registered nurse to address the challenges faced by providers and patients when patients are admitted to a community hospital for both cancer-related and non-cancer-related health issues. For this research project, Katie Wigdorski, MSN, FNP, RN, Community Liaison Nurse Practitioner, and Lisa Garvey, MSN, RN, OCN, Community Liaison Nurse, highlighted ways their unique positions have helped them to improve communication and facilitate continuity of care for those patients.
- Sedentary Lifestyle Appears to Increase Risk for Both Kidney and Bladder Cancer

 A new study led by researchers at Roswell Park Comprehensive Cancer Center establishes a
 connection between a sedentary lifestyle and risk of developing kidney or bladder cancer. The
 findings extend a line of inquiry that has already revealed a connection between chronic inactivity
 and heightened risk for both ovarian and cervical cancer, and also highlight the possibility of
 reducing risk for some cancers by increasing physical activity. The new research, published in the
 journal Cancer Epidemiology, details the findings of a hospital-based case-control study involving
 160 patients with renal (kidney) cancer, 208 with bladder cancer and a control group of 766 people
 of the same ages who did not have cancer. A team led by Kirsten Moysich, PhD, MS, and Rikki

Cannioto, PhD, EdD, MS, surveyed the participants in order to determine whether lifetime recreational physical inactivity was associated with risk of developing renal or bladder cancer.

Roswell Park's Dr. Kunle Odunsi Gives Update on Ovarian Cancer Immunotherapy Study at ASCO Annual Meeting
 Kunle Odunsi, MD, PhD, FRCOG, FACOG, Deputy Director of Roswell Park Comprehensive Cancer
 Center, gave an update about an ongoing clinical trial at the American Society of Clinical Oncology
 (ASCO) 53rd Annual Meeting in Chicago. Dr. Odunsi, who is also Chair of Gynecologic Oncology and
 Executive Director of the Center for Immunotherapy at Roswell Park, reported on the status and
 methods of the clinical study, which is assessing the safety and antitumor activity of an approach
 that employs T-cell engineering to stimulate the immune system against ovarian cancer.
 The clinical study is being conducted in collaboration with researchers from City of Hope, the
 Stanford Cancer Institute, the University of Texas MD Anderson Cancer Center, the University of

Miami and Adaptimmune Therapeutics.

- New research presented at the American Society of Clinical Oncology (ASCO) 53rd Annual Meeting in Chicago showed that a previously untested combination of a monoclonal antibody-drug conjugate with a common chemotherapy agent has a high complete-response rate in children and young adults with relapsed or refractory Hodgkin lymphoma. This cooperative-group clinical trial, Children's Oncology Group study AHOD1221 (NCT01780662), was led by Kara Kelly, MD, Waldemar J. Kaminski Endowed Chair of Pediatrics at Roswell Park Comprehensive Cancer Center. The research team evaluated the combination of the biologic therapy brentuximab vedotin (Adcetris), a monoclonal antibody-drug conjugate, with the chemotherapy drug gemcitabine (Gemzar) in 42 pediatric and young-adult patients with Hodgkin lymphoma, the most common cancer in young people ages 15 to 29.
- More than 10 Roswell Park Teams Present New Research Findings at ASCO 2017 Annual Meeting More than 10 teams from Roswell Park Comprehensive Cancer Center were invited to present research at the American Society of Clinical Oncology (ASCO) 53rd Annual Meeting in Chicago. The research presentations covered a wide range of disciplines, treatment approaches and cancer types, including a unique form of immunotherapy for ovarian cancer, promising results on a new treatment approach for Hodgkin lymphoma in children and young adults and an effort to build a predictive tool to determine which patients are most likely to respond well to checkpoint inhibitors.

Three Roswell Park faculty leaders had speaking roles at the meeting, which is the largest gathering of cancer researchers in the world, attracting more than 35,000 attendees:

- Igor Puzanov, MD, MSCI, FACP, Chief of Melanoma and Director of the Early Phase Clinical Trials Program, spoke on immunotherapy and novel combinations in oncology as part of a pre-Annual Meeting educational program focused on New Drugs in Oncology and also led a poster discussion session on new research in melanoma and skin cancers.
- Marc Ernstoff, MD, Katherine Anne Gioia Chair of Medicine and Senior Vice President for Clinical Investigation, spoke on the challenges in identifying patients for combination immunotherapy as part of the educational session Biomarkers for Immunotherapy: An Illusion or a Reality?

 Eunice Wang, MD, Chief of Leukemia, led a discussion on immunotherapy in myeloid malignancies as part of the Hematologic Malignancies—Leukemia, Myelodysplastic Syndromes, and Allotransplant poster discussion session.

Predictive Tool Developed by Roswell Park-OmniSeq Team Accurately Reflects Response to Checkpoint Inhibition

The class of immunotherapies known as checkpoint inhibitors have proven to be a highly effective and advantageous treatment option for many cancer patients, but they don't work well for everyone, and oncologists have no reliable way to determine in advance which patients are likely to respond to these drugs. Looking to identify a genetic profile to predict how patients will respond to checkpoint inhibition, also known as anti PD-L1 therapy, researchers from Roswell Park Comprehensive Cancer Center and OmniSeq collaborated to sequence the tumors of patients who had completed treatment with checkpoint inhibitors. They reported the results of this analysis at the American Society of Clinical Oncology (ASCO) 53rd Annual Meeting in Chicago.

Roswell Park-Led Research Updates Data on Lenalidomide Maintenance for Patients With Multiple Myeloma

An international team of researchers performed a follow-up analysis based on a large clinical study of a maintenance therapy for patients with multiple myeloma. Philip McCarthy, MD, of Roswell Park Comprehensive Cancer Center was principal investigator of a phase III study that showed that treatment with lenalidomide following autologous hematopoietic stem cell transplant improved both progression-free survival and overall survival for newly diagnosed multiple myeloma patients. He is also first author on an updated analysis presented during the American Society of Clinical Oncology (ASCO) 53rd Annual Meeting in Chicago that adjusts the data to account for the impact of crossover from the placebo arm to the treatment arm among a group of study participants.

- Dr. Khurshid Guru Named Chair of Urology at Roswell Park Comprehensive Cancer Center Khurshid Guru, MD, one of the most experienced and accomplished robotic surgeons in the world, was named Chair of the Department of Urology at Roswell Park Comprehensive Cancer Center. Dr. Guru, who was recruited to Roswell Park in 2005 to direct the Institute's robotic surgery program, will lead a team of more than 50 faculty members, clinicians, researchers and staff who provide care for patients with various genitourinary diseases, including prostate, bladder and kidney cancer.

 James Mohler, MD, has assumed the new role of Chief of Inter-Institutional Academics and will act as Roswell Park's point person and liaison for translational research collaborations between Roswell Park and the University at Buffalo.
- Williamsville Oncology Practice Rebrands as Roswell Park Hematology Oncology Northtowns
 An established hematology-oncology practice in the Buffalo Northtowns has capped a year of
 growth with an expansion and rebrand. Soniwala Hematology Oncology Associates, which has been
 part of the Roswell Park Comprehensive Cancer Center community cancer practice network since
 2014, is now Roswell Park Hematology Oncology Northtowns.

Roswell Park Promotes Three from Finance Team to Leadership Roles

Ryan Grady, CPA, was appointed Vice President of Finance and Payer Relations at Roswell Park
Comprehensive Cancer Center and will lead the Institute's finance team. He will oversee Roswell
Park's financial reporting, accounting and treasury management operations, financial planning

and reimbursement operations. In addition, he will oversee the comprehensive cancer center's managed-care and payer-relations activities.

- Scott Matthews, CPA, was promoted from Manager of Treasury and Finance to Director of
 Finance. He will be responsible for the Institute's accounting and financial reporting functions
 and will also oversee treasury operations and the accounts payable and payroll departments.
- Todd Maier, CPA, was promoted from Manager of Finance Transformation to Director of Financial Analytics and Planning. Maier will oversee both the budgeting and business intelligence functions within the finance department.

Surgery and High-Dose SBRT Radiation Can Be Combined to Treat Kidney Cancer, Roswell Park Researchers Show

A study from Roswell Park Comprehensive Cancer Center reporting the findings of the first clinical trial to evaluate the immune effects of high-dose radiation therapy followed by surgery in patients with advanced kidney cancer may also set the stage for combination treatments with immunotherapy. The research, published in *Clinical Cancer Research*, a journal of the American Association for Cancer Research (AACR), shows that nephrectomy can be effectively paired with stereotactic body radiation therapy (SBRT), and also provides strong evidence that immunotherapy may be an effective third element to incorporate into this combination therapy strategy.

Cancer Rates Higher Among Patients with Primary Immunodeficiency Diseases

Primary immunodeficiency diseases (PIDD) are a group of more than 300 disorders caused by single-gene defects that prevent the immune system from functioning properly. These immune disorders affect one in 1,200 people, and an association between these diseases and cancer has been noted. A team of researchers at Roswell Park Comprehensive Cancer Center found an increased incidence of certain types of cancer, particularly lymphoma, in patients with PIDD. Their findings, published in the *Journal of Allergy and Clinical Immunology*, reveal a restricted but important role for the immune system in protecting against certain types of cancer.

FDA Awards Orphan Status to Brain Cancer Vaccine Developed at Roswell Park Comprehensive Cancer Center

The U.S. Food and Drug Administration awarded orphan drug status to a promising immunotherapy vaccine developed at Roswell Park Comprehensive Cancer Center. The FDA notified MimiVax LLC, a Roswell Park spinoff company, on Aug. 3 that its application for orphan status for SurVaxM as treatment for glioblastoma, a type of brain cancer, had been approved. Orphan status is a special designation awarded to encourage innovation and exploration of approaches to treat rare diseases that affect relatively few people. SurVaxM, also known as DRU-2017-5947, is an immunotherapy drug that targets survivin, a cell-survival protein present in most cancers.

International Lenalidomide Trials Show Survival Benefit of Maintenance Therapy Following Transplant

The first study to report that overall survival was extended for patients receiving lenalidomide as maintenance treatment for multiple myeloma has been completed, with the team's findings now published in the *Journal of Clinical Oncology*. Philip L. McCarthy, MD, Director of the Blood and Marrow Transplant Program at Roswell Park Comprehensive Cancer Center, was principal

investigator for one of the three clinical studies that are reported in this updated analysis, and is first author of the publication that compiles the international team's findings and analysis.

Beta Blockers May Hold Key to Unleashing Potential of Checkpoint Inhibitors, Roswell Park Team Shows

While the development of therapies designed to block "checkpoints" within the immune system has been one of the most exciting and noteworthy advances in cancer research in recent years, it's also been one of the most puzzling, leaving researchers to ask: Why don't these new therapies work for more patients, and why is their efficacy in controlling cancerous tumors often short-lived? A research team from Roswell Park Comprehensive Cancer Center showed that at least one answer — and an excellent opportunity for unleashing the full potential of these promising immunotherapies — may lie in the body's "fight or flight" reaction to stressors and in drugs already widely used to control and temporarily disable this stress response.

Multivitamins May Reduce Incidence of Neuropathy from Chemotherapy

Chemotherapy-induced peripheral neuropathy, or CIPN, is a common side effect of cancer treatment that causes shooting or burning pain, numbness, tingling and cold sensitivity of the hands and feet for many cancer patients. A new study from Roswell Park Comprehensive Cancer Center found that women who took multivitamin supplements before their breast cancer diagnosis and/or during treatment, however, were less likely to develop these debilitating and often long-lasting symptoms. The study was published online ahead of print in the *Journal of the National Cancer Institute* (JNCI).

• Scientists Develop Fluorescent Sensors That May Pave Way for New Cancer Therapies
For several decades, scientists have recognized the key role that a molecule known as GTP, one of
the building blocks of RNA, plays in the development of cancer and other diseases. But they had no
way to monitor this important nucleotide in live cells, and thus to understand — and disrupt — its
contribution to tumor growth and aggressiveness. Research led by a team from Roswell Park
Comprehensive Cancer Center and published in the journal *Nature Methods* reports the
development of genetically encoded GTP sensors that can rapidly detect changes in GTP levels in
living cells. It's a finding, the authors say, that could enable the development of new approaches for
treating a wide variety of solid-tumor cancers, and perhaps other diseases as well.

• Roswell Park Joins ORIEN Personalized Medicine Consortium

An unprecedented network of centers collaborating to share information and translate these pooled resources into personalized treatments for cancer patients has expanded to 16 institutions with the addition of Roswell Park Comprehensive Cancer Center as a member. The National Cancer Institute-designated comprehensive cancer center has joined the **Oncology Research Information Exchange Network®** (ORIEN), a unique research partnership among North America's top cancer centers.

The Oncogene FOXQ1 Promotes Some Tumor Types but Suppresses Another

A treatment that works well for one cancer type can possibly make other cancers grow more quickly. That is the striking implication of research from a team at Roswell Park Comprehensive Cancer Center, published in the journal *Cell Reports*. The transcription factor FOXQ1 is a known oncogene that has been previously associated with carcinomas, including many types of breast, colorectal, liver and ovarian cancers. Looking to better understand how this protein might be involved in additional cancer types, a team led by *Mikhail Nikiforov*, *PhD*, investigated FOXQ1's role in melanoma, a distinct cancer type that originates from different types of cells than carcinomas.

• Viral Vector Mobilan Offers a New Approach for Cancer Immunotherapy

One of the most important areas of cancer research today involves efforts to expand the benefits of immunotherapy to more patients. Research conducted by scientists at Roswell Park Comprehensive Cancer Center in cooperation with Panacela Labs LLC, a subsidiary of Cleveland BioLabs LLC (Nasdaq: CBLI), introduced a new class of immunotherapy and proposed a strategy for increasing the number of patients who are likely to benefit from this new approach. The team's efforts, reported in a study in the journal *Oncogene*, involve the innate immunity receptor TLR5.

'Super T Cells' Engineered for Optimal Performance Drive New Roswell Park Gene-Therapy Approach

Researchers at Roswell Park Comprehensive Cancer Center initiated a clinical trial based on a unique two-pronged strategy for arming the immune system to more effectively attack cancer cells. Patients treated through this early-stage clinical trial, available only at Roswell Park, will receive one-time injections of their own cells —"super T cells" reprogrammed to make them more effective at targeting tumor cells, and armed with an added element to help them to evade one of cancer's most resilient defenses.

Society For Immunotherapy of Cancer (SITC) Spearheads Initiative to Align Management of Immunotherapy Side Effects

The first consensus recommendations on recognition and clinical management of immune-related side-effects from cancer immunotherapy were published in the **Journal for ImmunoTherapy of Cancer (JITC).** The article, *Managing toxicities associated with immune checkpoint inhibitors:*Consensus recommendations from the Society for Immunotherapy of Cancer (SITC) Toxicity

Management Working Group, is a key step toward ensuring patients with cancer receive the highest quality of care.

Cancer immunotherapy — treatment that harnesses the patient's own immune system to recognize and fight cancer — has become a pillar of cancer care in recent years. One widely-used class of agents, checkpoint inhibitors, works by 'taking the brakes off' the immune system, allowing cancer cells to be targeted for destruction. Clinical trials have shown that checkpoint inhibitors are highly effective, providing long-term benefit with generally manageable side-effects. However, patterns are emerging that suggest that checkpoint inhibitors may cause unwanted effects in a number of organ systems.

- Roswell Park Hematology Experts Share New Research in ASH 2017 Podium Presentations
 Experts from around the world who specialize in cancers of the blood, bone marrow and immune
 system gathered in Atlanta, Georgia, for the 59th ASH Annual Meeting & Exposition, the annual
 meeting of the American Society of Hematology. Many Roswell Park Comprehensive Cancer Center
 clinician-scientists presented new findings at the conference, including two whose research was
 highlighted in podium presentations.
 - Eunice Wang, MD, Chief of Leukemia at Roswell Park, was invited to discuss the clinical outcomes of a phase II clinical trial of crenolanib, a new agent that has shown promise as a therapy for acute myeloid leukemia (AML), the most common and aggressive blood cancer diagnosed in adults. Dr. Wang and a multi-institutional team of collaborators reported results of a study assessing the effectiveness of crenolanib in combination with standard chemotherapy.

- Another Roswell Park faculty leader, Kara Kelly, MD, the Waldemar J. Kaminski Endowed Chair of Pediatrics at the Institute, was senior author on an analysis of Children's Oncology Group data regarding more than 2,000 children and adolescents with newly diagnosed Hodgkin lymphoma. While many studies suggest that low socioeconomic status and black or Hispanic race/ethnicity are associated with reduced survival for children and adolescents with this disease, evidence for what's driving these concerning disparities has been quite limited. The team looked at a wider pool of data seeking evidence that might explain these outcomes gaps and suggest strategies for addressing them.
- Roswell Park Research Suggests New Strategy for Unleashing Cancer-Fighting Power of p53 Gene Tumor protein p53 is one of the most critical determinants of the fate of cancer cells, as it can determine whether a cell lives or dies in response to stress. In a new study published in the journal Nature Communications, a research team from the Department of Pharmacology and Therapeutics at Roswell Park Comprehensive Cancer Center reports their discovery of a major mechanism by which cells regulate this important and multifunctional tumor suppressor, opening up new avenues for cancer research and treatment.

P53 is stimulated by various forms of cellular stress, such as exposure to radiation or carcinogens. **Yuesheng Zhang, MD, PhD**, and a team of colleagues found that more than half of all nuclear and cytoplasmic p53 is bound to and suppressed by the protein peptidase D (PEPD), also known as prolidase. Under normal conditions, PEPD's suppression of p53 is essential for cell survival, but in cancer cells, PEPD is essential for tumor growth. The complex that is formed between PEPD and p53 is critical for cell survival.

- Roswell Park Research Identifies Cells that May be Responsible for Prostate Cancer Recurrence Although men with prostate cancer usually respond to standard treatment with hormone therapy or chemotherapy, many will eventually experience progression or recurrence despite treatment particularly those with high-risk or aggressive forms of the disease. In preclinical laboratory research, a team led by Dean Tang, PhD, Chair of Pharmacology and Therapeutics at Roswell Park Comprehensive Cancer Center, discovered a unique population of normal stem cells that are intrinsically resistant to conventional treatments and may enable prostate cancer relapse. In a publication in the journal Stem Cell Reports, the team reported its development of a novel preclinical model that allows not only the labeling but also the purification of this rare but persistent population of prostate stem cells, which are dormant and, strikingly, resemble high-risk prostate cancer at the molecular level.
- Roswell Park Comprehensive Cancer Center Ushers in New Year with Fresh Look, Identity
 Roswell Park Comprehensive Cancer Center ushered in 2018 with a new name, mission and vision
 that are anchored around a central principle: "Unleashing the healing power of hope." The center's
 new logo was adapted by Buffalo artist Shasti O'Leary Soudant from Wish Field, the installation she
 created for the lobby of Roswell Park's Scott Bieler Clinical Sciences Center in 2016. "You're looking
 for hope, something reassuring," O'Leary Soudant, a cancer survivor, said last year, recalling the
 fears and concerns she experienced when she was in treatment for lymphoma while living in
 Colorado in 1999. "I felt it was important that I contribute something that would lend itself to the
 hopeful, wishful, welcoming aspect of (Roswell Park)."
- Roswell Park Research Identifies Link between Smoking, Sex Hormones and Lung Cancer

There is increasing evidence that women are more susceptible to lung cancer than men, particularly if they smoke. A Roswell Park Comprehensive Cancer Center research team led by **Christine Ambrosone**, **PhD**, Chair of Cancer Prevention and Control, added support to the estrogen hypothesis of lung cancer development by identifying a link among smoking, sex, and hormones in patients with non-small cell lung cancer (NSCLC). Their findings have been published in the *Journal of the National Cancer Institute (JNCI)*. The team collected tumor samples from 813 men and women with NSCLC in an attempt to identify the association between both smoking status and sex and the expression of different hormone receptors in the lung. The researchers found that the expression of estrogen receptor beta (ER-β), a hormone receptor that is known to inhibit tumor growth, was lower in women than in men, which supports the idea that women are in fact more susceptible to lung cancer. Levels of this hormone receptor were particularly low in postmenopausal women and in those who had never used hormone therapy, suggesting that a decrease in the amount of circulating estrogen could be responsible. Other studies have suggested that expression of ER-β in NSCLC patients is lower in women than men, but the Roswell Park study is the first to confirm this sex difference.

Roswell Park Appoints New Leaders From Both Within and Outside the Comprehensive Cancer Center

Seven senior employees are serving in new roles at Roswell Park Comprehensive Cancer Center. While five of these program leaders were promoted or re-appointed, two have newly joined the Institute from other centers.

- Charles LeVea, MD, PhD, was appointed Chair of the Roswell Park Department of Pathology and Laboratory Medicine, following a national search.
- Gissou Azabdaftari, MD, was named Clinical Chief of Cytopathology. Dr. Azabdaftari joined Roswell Park's staff in 2010 and today holds a joint appointment as an Associate Professor of Oncology within the Departments of Pathology & Laboratory Medicine and Urology.
- **Amy Case, MD**, was named the inaugural Chair of the Department of Supportive Care at Roswell Park Comprehensive Cancer Center.
- **Holly Bowser, MBA, CMPE**, is the new Vice President of Organizational Performance Improvement.
- Thomas Summerill, MBA, MHSA, is the new Executive Director of Payer Relations. He joins Roswell Park Comprehensive Cancer Center from the University of Maryland Quality Care Network, where he served as the Executive Director.
- Sara Randolph was named Director of Payer Relations. She has been at Roswell Park Comprehensive Cancer Center for three years, working as Administrator of Managed Care Operations.
- David Tear, MBA, has rejoined Roswell Park after a brief absence, in the new position of Senior Executive Director for Disease Site Strategy Group Implementation and Management. Tear, whose past experience includes roles with Memorial Sloan-Kettering Cancer Center and Long Island College Hospital, served as Executive Director of Ambulatory Care Services at Roswell Park from 2014-2016.

Roswell Park's Dr. Alan Klitzke Named 2018 President of the American College of Nuclear Medicine

Dr. Klitzke is an Associate Professor of Oncology in the Department of Diagnostic Radiology at Roswell Park Comprehensive Cancer Center. He's also an Assistant Professor of Radiology and Assistant Professor of Nuclear Medicine at the Jacobs School of Medicine and Biomedical Sciences at the University at Buffalo. As a veteran in the field of nuclear medicine, Dr. Klitzke specializes in

whole-body PET/CT imaging, CT guided biopsy procedures, as well as, CT, MRI and Ultrasound imaging of the thorax, abdomen and pelvis. During his one-year term as the president of ACNM, Dr. Klitzke's goal is to help advance the field both nationally and internationally.

- Physical Inactivity Linked to Higher Risk of Lung, Head/Neck Cancers
 - An increasing body of evidence suggests that a lack of exercise can cause a wide variety of diseases, but physical inactivity is not currently recognized as a risk factor for cancer. Two research teams led by **Kirsten Moysich**, **PhD**, **MS**, Distinguished Professor of Oncology in the Department of Cancer Prevention and Control at Roswell Park Comprehensive Cancer Center, identified a direct association between physical inactivity and two different types of cancer: lung cancer and head and neck squamous cell carcinoma (HNSCC) adding to a growing list of cancers linked to sedentary lifestyles.
- New Mutation Linked to Ovarian Cancer Can Be Passed Down Through Dad
 A newly identified mutation, passed down through the X chromosome, is linked to earlier onset of ovarian cancer in women and prostate cancer in father and sons. Kunle Odunsi, MD, PhD, FRCOG, FACOG, Kevin H. Eng, PhD, and colleagues at Roswell Park Comprehensive Cancer Center in Buffalo, New York, reported these findings February 15th, 2018, in PLOS Genetics.
- Roswell Park Familial Ovarian Cancer Registry Data Link Ovarian and Testicular Cancer
 Testicular cancer is rare, affecting about 1 of every 250 males, but it is one of the most common malignancies among younger men aged 15 to 44 years. Using data from a large ovarian cancer registry, a research team from Roswell Park Comprehensive Cancer Center uncovered a link between testicular cancer and familial ovarian cancer that may be attributable to genetic factors on the X chromosome.
- Roswell Park Approved to Administer CAR T-Cell Therapy, Yescarta, to Lymphoma Patients
 Roswell Park Comprehensive Cancer Center has been officially approved to administer an FDAapproved CAR T-cell therapy, Yescarta, to lymphoma patients. It's manufactured by Kite, a Gilead
 Company. Yescarta, also known as axicabtagene ciloleucel, is used to treat adult patients with
 diffuse large B-cell lymphoma (DLBCL), the most common type of non-Hodgkin Lymphoma. The
 immunotherapy treatment is created using a patient's immune system to help fight the lymphoma.
 The patient's T cells, a type of white blood cell, are collected and genetically modified to include a
 new gene that targets and kills the lymphoma cells. Once the cells are modified, they are infused
 back into the patient.
- Brain Network Interactions Can Measure Trust Levels Among Teams Performing Robot-Assisted Surgery
 - Trust can be measured using electroencephalography (EEG) activity, according a Roswell Park Comprehensive Cancer Center research and surgical team led by **Khurshid A. Guru, MD**, Director of Robotic Surgery, Director of the Applied Technology Laboratory for Advanced Surgery (ATLAS) and Chair of the Department of Urology. Their method, which uses brain activity patterns to objectively assess the level of trust between mentor and trainee during robot-assisted surgery, was detailed in **Scientific Reports**, a nature journal.
- Roswell Park Comprehensive Cancer Center Releases Quality 2017 Report

Roswell Park Comprehensive Cancer Center has released its **Quality 2017 report**. It contains the latest data on patient outcomes, including five-year survival rates by disease site and stage, and other key quality indicators. The numbers demonstrate that Roswell Park is at the forefront of innovation in oncology. The survival outcomes data published in this report were compared to national statistics. The numbers demonstrate the center's high volumes in specialized care, such as minimally invasive robotic and video-assisted surgery, gamma knife radiosurgery and hypofractionated radiation therapy, which delivers higher doses of radiation therapy over a shorter period of time and may kill more tumor cells and have fewer side effects. The cancer center also delivers specialized blood and marrow transplants.

- National Surgical Oncology Meeting Highlighted Work of Roswell Park Researchers
 More than a dozen Roswell Park Comprehensive Cancer Center clinicians and researchers were
 invited to present new findings at the 71st annual Cancer Symposium of the Society of Surgical
 Oncology (SSO), an international organization of surgeons dedicated to advancing the treatment of
 cancer. Presentations included:
 - Steven Nurkin, MD, MS, FACS, Associate Professor of Oncology in the Department of Surgical Oncology, helped to kick off the conference as part of a panel presentation, "Practice-Changing Papers in Surgical Oncology in 2017." Dr. Nurkin, who specializes in cancers and precancerous conditions of the gastrointestinal (GI) tract, reviewed the most significant 2017 studies in his area of specialty and discussed how this research is changing the way oncologists treat patients with lower-GI cancers.
 - Kazuaki Takabe, MD, PhD, FACS, Professor of Oncology and Clinical Chief of Breast Surgery, discussed the prognostic significance of the immune cytolytic activity score (CAS) in breast cancer patients ("Clinical Significance of Local Immune Cytolytic Activity in Breast Cancer," abstract 17: Breast Track). In their study of 1,090 patients with breast cancer, Dr. Takabe and colleagues found that patients with a high CAS, which reflects strong immune activity, had better survival outcomes than patients with lower scores. Their research suggests that CAS is a potential indicator of immunologic response and survival independent of age, hormone receptor status and cancer stage.
 - Kerry-Ann McDonald, MD, Clinical Fellow in the Department of Surgical Oncology, discussed a genomics approach developed at Roswell Park that seeks to identify breast cancer patients at high risk of developing metastasis, a common and painful occurrence in advanced disease ("Multigene Recurrence Score That Is Prognostic of Worse Survival in Breast Cancer," abstract 54: Breast Track). Dr. McDonald and a research team led by Dr. Takabe developed MRS-BM, a multigene recurrence score for patients with bone metastasis, as a tool to predict metastatic disease in women with hormone-positive breast cancer. Their hope is that the MRS-BM can be used to identify breast cancer patients at high risk of metastasis and further develop it as an adjunctive assessment of treatment response in metastatic breast cancer.
 - Sumana Narayanan, MD, Clinical Fellow in the Department of Surgical Oncology, delivered two podium presentations during the meeting. In the first, she discussed how expression of certain DNA repair genes is associated with survival in patients with colorectal cancer ("Tumor Infiltrating Lymphocytes and Macrophages Improve Survival in Microsatellite Unstable Colorectal Cancer," abstract QS27: Colorectal Track). Her second talk ("Cytolytic Activity Score as a Marker for Intra-Tumoral Immunogenicity in Colorectal Cancer," abstract 68: Colorectal Track), outlined evidence that colorectal tumors with cytolytic activity score corresponded with improved survival, and could potentially be used as a marker of the

- success of immune checkpoint blockade. Dr. Narayanan was nominated for a Resident/Fellow Essay Award for this second presentation.
- Aaron Saunders, MD, a Clinical Fellow with the Department of Surgical Oncology, presented a video abstract reporting the case of a man with recurrent rectal cancer ("Robotic Assisted Radical Resection of Recurrent Rectal Cancer," abstract V6: Colorectal Track). The man, in his 40s, was evaluated with magnetic resonance imaging and endoscopy and treated with short-course radiation followed by robot-assisted completion abdominoperineal resection en bloc with a partial sacrectomy, followed by bilateral gluteus fasciocutaneous flaps.
- John M. Kane III, MD, FACS, Chief of Melanoma/Sarcoma and Chair of Surgical Oncology, was a moderator for Melanoma Poster Grand Rounds on Friday, March 23. Dr. Kane has been an active member of the Society of Surgical Oncology since 2004. Dr. Kane's clinical and research interests include soft-tissue sarcomas, melanoma and isolated regional therapies.
- Additionally, several other Roswell Park teams presented new research in poster presentations at the meeting.
- New Study at Roswell Park Results in Up to 97% Reduction in Use of Opioids Following Surgery
 New research from Roswell Park Comprehensive Cancer Center suggests that medical care providers
 are able to significantly reduce use of opioid painkillers through a two-step process: providing fewer
 opioids to patients upon their discharge following surgery, and supporting good communication
 between the clinical team and the patient. The results, presented in a plenary session at the Society
 of Gynecologic Oncology (SGO) Annual Meeting on Women's Cancer, suggest that clinical teams
 may be routinely overprescribing opioids, and provide evidence that more restrictive approaches to
 pain management for surgical patients can be highly effective. The Roswell Park research team
 investigated this innovative approach to pain management through a 19-month study in patients
 undergoing major gynecologic surgeries. Led by Emese Zsiros, MD, PhD, FACOG, Assistant Professor
 of Oncology with the Department of Gynecologic Oncology and Center for Immunotherapy, the
 research team did a prospective analysis, comparing data on the experiences of 337 patients treated
 from June 2017 through January 2018 to a control group of 626 cases from prior years.
- Roswell Park Research on Survivin Opens Up New Avenues for Cancer Immunotherapy
 Survivin is a protein present in many cancer types. The molecule can exist on the tumor surface,
 suggesting new opportunities for CAR T-cell and antibody-based therapies. A Roswell Park team
 discovered a form of this protein on the cell surface in many solid tumors, findings that may lead to
 new immunotherapy approaches against cancer. "We've shown through our clinical trials of
 SurVaxM immunotherapy that survivin-targeting vaccines will stimulate both T-lymphocyte and
 antibody responses against survivin," says senior author Michael Ciesielski, PhD, Assistant Professor
 in the Department of Neurosurgery at Roswell Park. "Through this latest study, we have now
 discovered that antibodies that target cell-surface survivin have distinct therapeutic potential."

"We've dedicated more than a decade to studying survivin as a target for cancer immunotherapy. This work has opened up a variety of new options for using different forms of immunotherapy for hard-to-treat cancers," says **Robert Fenstermaker**, **MD**, Chair of Roswell Park's Department of Neurosurgery and lead author on the newly published study. "CAR T cells and antibody approaches are highly attractive because they have the potential to deliver potent therapy to patients whose cancers have survivin, but not other conventional targets, on their surface."

Roswell Park-Baylor Research Identifies Crucial Enzyme Driving Breast Cancer

Looking to identify new strategies to prevent breast cancer recurrence, a research team led by **Subhamoy Dasgupta, PhD,** Assistant Professor of Oncology in the Department of Cell Stress Biology at Roswell Park Comprehensive Cancer Center, has identified two key proteins involved in glucose metabolism that could be targeted to prevent breast cancer metastasis and recurrence. The team's findings were published in the journal *Nature*.

Celebrating 120 Years of Transforming Cancer Care

Roswell Park celebrated 120 years of innovation, breakthrough discoveries and patient-centered cancer care with a special ceremony and time capsule dedication. Joined by two former Roswell Park presidents, members of the Roswell Park staff and community partners who have helped carry this mission forward, Roswell Park IV, PhD, spoke at the event about the legacy left by his great-grandfather. Buffalo Mayor Byron Brown also shared his thoughts on the impact of the region's only comprehensive cancer center.

• Roswell Park Celebrates Grand Opening of New Outpatient Center for Pediatric Patients
In September 2017, Roswell Park opened the doors of its new home for pediatric cancer and blood disorder outpatient care — the Katherine, Anne & Donna Gioia Pediatric Hematology Oncology Center. Located on the first floor of the main hospital, the new center is a thoughtfully planned facility uniting state-of-the-art technology, smart, welcoming design with evidence-based insights on the medical, social, emotional and educational needs of young patients. Made possible through the generous donations of the Western New York community, the center boasts a bright ,welcoming reception area, including a separate play area with interactive display, computers and plenty of seating; a centrally located playroom with entertainment for children of all ages, including games, crafts, toys and an interactive wall; and infusion bays, each with natural light, privacy curtains and low-height partition walls with sliding glass windows that can be opened and closed as desired. Each bay includes a television and infusion chairs with heat and massage.

Community Support & Advocacy

- Roswell Park and Buffalo Sabres Host Free Skin Cancer Screening Event at KeyBank Center
 Roswell Park Comprehensive Cancer Center and the Buffalo Sabres teamed up to offer FREE skin
 cancer screening examinations and education on Thursday, May 11, 2017 at KeyBank Center. During
 the screening examination, which took approximately 10 minutes, a physician, physician assistant or
 nurse practitioner from Roswell Park's Department of Dermatology inspected the skin of more than
 250 screening participants for suspicious moles, growths or sores and provided education on skin
 self-examination and early skin cancer detection and treatment.
- Two-Day Roswell Park Event Helped Cancer Patients and Survivors Navigate 'Chapter 2,' Life After Cancer

It's estimated that there are more than 15.5 million cancer survivors living in the United States, with that number expected to rise dramatically over the next two decades. While the increase reflects significant treatment advances, it also underscores the fact that millions of cancer survivors are likely to face various medical, psychological, spiritual and emotional issues stemming directly from their disease or the treatments they've received. Recognizing the importance of helping cancer survivors to navigate and address these long-term impacts, Roswell Park Comprehensive Cancer Center hosted Chapter 2: A Cancer Survivor's Workshop for Living Your Best Life on June 16 and 17, 2017 for 180 cancer survivors and their caregivers. This two-day event, held on the Roswell Park

campus, was a comprehensive and interactive workshop open to all cancer patients, survivors and their caregivers.

Laura Krolczyk, Leah Halton-Pope to Lead Roswell Park's Engagement with Government Officials and Agencies

Roswell Park Comprehensive Cancer Center's engagement with elected officials and government agencies will be led by Laura Krolczyk, who has been promoted to Vice President of External Affairs, and Leah Halton-Pope, who joined the Institute as Director of Government and Community Relations. Krolczyk, who most recently served as Director of State Relations at Roswell Park, a National Cancer Institute-designated comprehensive cancer center, will highlight and enhance the Institute's global impact while developing its strategic position on public-health policy issues and regulatory matters at the federal, state and local levels. Before joining Roswell Park in 2010, Krolczyk served as an aide to U.S. Sens. Hillary Clinton and Kirsten Gillibrand, directing their Western New York regional offices. A member of the Leadership Buffalo Class of 2011, she was recognized with Buffalo Business First's 40 Under Forty award in 2014.

• 22nd Ride For Roswell Raises \$4.6 Million for Cancer Research

The Ride For Roswell, New York State's largest single-day cycling fundraiser, concluded its 22nd year in 2017 by raising a total of \$4.6 million for cancer research and patient-care programs at Roswell Park Comprehensive Cancer Center. Ride Weekend involved more than 10,000 riders, volunteers and countless other supporters. In 1996, the first Ride For Roswell had 1,000 riders who raised just over \$100,000. Over the past 22 years, The Ride has raised more than \$42 million for Roswell Park Comprehensive Cancer Center, and more than 100,000 riders have participated in the event.

Retired Firefighters Donate Funds to Further the Fight Against Lung and Prostate Cancers
 A group of retired firefighters dedicated to raising funds for cancer research visited Roswell Park
 Comprehensive Cancer Center to make a significant donation that will go toward lung and prostate
 cancer research. The firefighters are members of the Retired Professional Fire Fighters Cancer Fund,
 a nonprofit organization based in Binghamton, N.Y. Their \$25,000 donation will provide critically
 needed funding for new, promising research projects for lung and prostate cancers.

Spirit of EAGLES Event Focused on Cancer in Native Communities Coming to Niagara Falls, NY in September

Two comprehensive cancer centers united to bring researchers and the diverse community of indigenous North American populations together for an unprecedented exchange of ideas, information and cultural enrichment. Roswell Park Comprehensive Cancer Center and the Mayo Clinic Cancer Center jointly hosted the 10th annual Spirit of EAGLES: Changing Patterns of Cancer in Native Communities conference, held Sept. 21–24, 2017 in Niagara Falls, New York.

This special 10th national gathering, dedicated to the theme "Strength Through Tradition and Science," brought Native American and First Nations community members from across the continent together with advocates, researchers, clinical care providers and a variety of health service providers for a series of seminars, panel discussions and social/cultural gatherings all focused on opportunities to improve health, wellness and access to care for indigenous populations in North America. The name Spirit of EAGLES reflected the organization's six areas of focus: survivors, education, advocacy, grants, leadership and scholarship.

• Empire State Ride Raises More Than a Half-Million Dollars for Cancer Research at Roswell Park

101 cyclists crossed the Niagara Falls finish line to complete the **Empire State Ride (ESR)**, a sevenday, 546-mile adventure across New York State to end cancer. To participate, individuals from as far as California and the Virgin Islands **raised more than \$500,000** to support cancer research at Roswell Park Comprehensive Cancer Center. The fully-supported ESR began in Manhattan on Sunday, July 30, 2017 with a view of the Statue of Liberty from the Staten Island Ferry. Over the next seven days, cyclists of all experience levels travelled through some of the most scenic parts of New York State, making overnight stops in the Hudson Valley, Albany, Utica, Syracuse and Rochester. Among those who greeted the riders at the finish line were Candace Johnson, PhD, Roswell Park President and CEO, as well as Niagara Falls Mayor Paul Dyster.

• Carly's Club at Roswell Park Announces New Name and Multi-Year Program Sponsorship Carly's Club, an organization that raises funds for pediatric cancer research and family support programs at Roswell Park Comprehensive Cancer Center, announced today that it has rebranded as the Courage of Carly Fund (CCF). Under the new name, CCF will also support research and familycentered programming to benefit children receiving outpatient care for non-malignant blood disorders at Roswell Park's new Katherine, Anne & Donna Gioia Pediatric Hematology Oncology Center.

Candace Johnson, PhD, President and CEO of Roswell Park announced the new name at a press conference held at New Era Cap's Buffalo headquarters which was aired live on the Courage of Carly Fund Facebook page.

- Amy Robach Honored at 27th Annual All Star Night, Roswell Park's Signature Gala Amy Robach was honored at the 27th annual All Star Night, Roswell Park Comprehensive Cancer Center's signature black-tie gala, for the extraordinary courage she has shown in the face of her breast cancer battle. The "Good Morning America" news anchor was diagnosed with breast cancer in 2013 after an on-air mammogram. She chose to fight the disease in the public eye in order to spread awareness and hope to as many individuals as possible. Robach's book, "Better: How I Let Go of Control, Held On to Hope, and Found Joy in My Darkest Hour," demonstrates her courage while outlining her fight, her motivation and her optimism, bringing further encouragement to those who share in the fight against cancer.
- Sabres and Roswell Park Team Up to Offer Free Prostate Cancer Early Detection Clinic Nov. 14 at KeyBank Center

Roswell Park and the Buffalo Sabres teamed up to offer free prostate cancer early detection for **156 eligible men**. The Nov. 14, 2017 event, the latest in the joint One Team, One Goal: Together to Beat Cancer initiative, is part of an ongoing effort to reduce cancer's impact among the team's fans through prevention, education and early detection.

Hockey Fights Cancer Night in Buffalo

The Buffalo Sabres again took part in the NHL Hockey Fights Cancer™ program, in partnership with the Courage of Carly Fund at Roswell Park Comprehensive Cancer Center, during the team's home game on Saturday, Nov. 18, 2017 against the Carolina Hurricanes. As part of an NHL-wide initiative to raise money and awareness for cancer research, the Sabres hosted events throughout the night in support of local cancer patients and their charitable organizations. All fans attending the game received a co-branded Sabres and Courage of Carly Fund Scarf.

• Coming Right Up: Roswell Park Comprehensive Cancer Center to Add SPoT Coffee Express Café

In 2018, SPoT Coffee will serve its first customer at a new location inside Roswell Park Comprehensive Cancer Center. This newest SPoT location will be a 500-net-square-foot "SPoT Coffee Express" café centrally located for the convenience of Roswell Park patients, visitors and employees within the comprehensive cancer center's main lobby at Elm and Carlton Streets in Buffalo. SPoT was awarded a contract at the conclusion of an open bidding process. For Roswell Park officials, the primary consideration was to partner with a vendor that offered a wide variety of healthy and freshly made drinks and foods delivered with quick and attentive service.

With Flick of the Switch, Young Cancer Survivor Will Light Up the Roswell Park Campus at Tree of Hope

Roswell Park Comprehensive Cancer Center's 17th annual Tree of Hope lighting ceremony drew cancer patients, survivors, caregivers and loved ones together for a holiday celebration Friday, Dec. 8, 2017 from 4:30 to 6:30 p.m. in Kaminski Park and Gardens on the Roswell Park campus. This free, family-friendly event was held in honor of all who are touched by cancer. It included live music, carriage rides, visits with Santa and Mrs. Claus, face painting and a gingerbread house raffle. Guests enjoyed all the joys of the holiday season at this outdoor event, which was co-sponsored by WGRZ 2 On Your Side and West Herr Automotive Group. The festivities were hosted by Channel 2's Maryalice Demler and Adam Benigni, and culminated with the lighting of the Tree of Hope by 7-year-old Mashayla, a cancer survivor and member of the Courage of Carly Fund at Roswell Park.

The Ride For Roswell Opens Registration for 2018

The 23rd annual Ride For Roswell presented by **West Herr Automotive Group** launched registration for its 2018 event, taking place on Saturday, June 23, 2018. Community members of all ages and cycling experience were invited to sign up to ride or volunteer at RideForRoswell.org. More than 10,000 riders and volunteers of all ages are expected to take part in this year's Ride to raise funds for cancer research and patient-care programs at Roswell Park Comprehensive Cancer Center. The Ride is the single largest fundraising event in Western New York and the state's largest single-day cycling

• The Healthy Scratch Opens on Roswell Park Campus

The Healthy Scratch, an eatery founded around the benefits of clean eating, opened a location in Scott Bieler Clinical Sciences Center on the Roswell Park campus. The grab-and-go café serves Roswell Park patients, staff, visitors and neighbors in 200-square-foot quick-service café near the intersection of Carlton & Michigan. Its menu of clean foods and juices incorporates fruits, vegetables and whole grains.

The 7th Annual Cruisin' for a Cure prostate screening event and car show took place on Saturday, Sept. 23, 2017

Of the 130 individuals who received prostate cancer screening, 48% identified as African-American, 39% identified as white, 13% identified as "other." Screening participants came from across WNY, with 55% from the City of Buffalo, 21% from the Northtowns, 14% from the Southtowns and 10% from other locations. This event was presented by **West Her Automotive Group** in conjunction with **Men Allied for the Need to Understand Prostate Cancer (MANUP)** and Roswell Park.

Minority-Owned, Women-Owned, Small Business, Disadvantaged and Veteran-Owned Enterprises
Roswell Park encourages opportunities for Minority Business Enterprises (MBE), Woman-Owned
Business Enterprises (WBE), Small Business Enterprises (SBE), Disadvantaged Business Enterprises
(DBE) and Service-Disabled Veteran-Owned Business Enterprises (SDVOB). During this fiscal year,

Roswell Park purchased **XX percent** of Institute-procured goods and services from these kinds of vendors and consultants. This is a XX percent increase over the previous fiscal year.

• The Roswell Park Office of Cancer Health Disparities Research (OCHDR) was renamed the Office of Engagement and Community Outreach in 2017.

The new name of the office, in the Department of Cancer Prevention and Control, reflects the future growth and direction of Roswell Park Comprehensive Cancer Center. The activities conducted under the Office of Cancer Health Disparities Research for the previous eleven years will continue under the direction of Associate Director for Community Outreach and Engagement, Deborah Erwin, PhD. Christy Widman, MPH, was also appointed as Assistant to the Director of COE to offer additional support for many of our cancer center clinical, research and catchment area collaborations, such as the expanding Cancer Screening and Survivorship program. Together with faculty members, Elisa Rodriguez, PhD, and Rodney Haring, PhD, MSW, the dedicated 14-person team representing multicultural backgrounds, provide linguistically and culturally relevant outreach, programming and community-based research for our Western New York communities. We specialize in cancer education, training, patient navigation and capacity building for our constituents and provide linkages between science and the community at large, in addition to actively pursuing investigator-initiated, NIH-funded studies in collaboration with our community partners. We are experts in recruitment, both for scientific studies and clinical programs.

- Overall, for calendar year 2017 we reached 3,264 people through 200 culturally tailored programs, health fairs and events to educate in need populations about cancer screening. Approximately 90% of these programs were conducted by the Witness Project to reach the African American communities in Erie and Niagara counties; approximately 50% of those engaged were minorities.
- Esperanza y Vida (Hope & Life) which conducts Hispanic bi-lingual outreach screened 207 women in calendar year 2017. Of those, 32 (15%) were African American; 142 (69%) were Hispanic; 11 (5%) were White; 3 (1%) were Native American; 16 (8%) are some other race; 3 (1%) are unknown race. 200 of those women are on Medicaid (97%).
- The Buffalo/Niagara Witness Project which educates participants on early cancer detection through stories told by breast and cervical cancer survivors in churches and community settings screened 130 women at Roswell.
- In addition, 130 men were screened for Prostate cancer during the Crusin' for a Cure event held annually at Roswell Park.
- Implemented a community-based education initiative called Screen 2 Save programming for Hispanic community members. Our bilingual outreach staff presented tailored materials regarding colorectal cancer and screening to 92 individuals who also completed pre and post surveys at six community programs.
- This past year, The National Witness Project, housed at Roswell Park, hosted an educational symposium for African American representatives from the National Witness Project titled, Annual Meeting for Education and Networking (AMEN). Close to a hundred African American representatives from 15 national sites attended the conference. The goal of AMEN is to increase knowledge & awareness of recent research results and prepare Witness Project volunteers to disseminate information to African American women in their communities. The 2.5 day AMEN agenda focused on scientific updates in African American women, the preliminary

data on a recently completed updated pilot intervention of the new education program and training on breast and cervical cancer guidelines, updates and screening.

- Roswell Park transfuses more than 19,000 blood products each year. Thanks to committed donors,
 Roswell Park successfully meets the needs of its patients. Throughout the fiscal year, the **Donor**Center at Roswell Park facilitated more than 1,000 whole blood donations and more than 3,000
 platelet donations.
- Roswell Park's blog Cancer Talk features various Roswell Park experts discussing the latest
 advances in cancer detection, prevention, research and treatment. The blog gives viewers an inside
 perspective on what's new in cancer care, introducing them to Roswell Park's physicians and
 researchers, and offers inspiring stories of survival, nutrition tips and survivorship resources. 220
 blogs were posted, with more than 580,000 page views in fiscal year 2018.
- The Neuroendocrine Tumor (NET) Patient Regional Meeting was held on Saturday, September 30, as an afternoon of networking and support for the more than 80 NET patients and their caregivers in attendance. Led by Renuka Iyer, MD, Co-Director, Liver and Pancreas Center and Section Chief for Gastrointestinal Oncology, the event also included presentations by Charles LaVea, MD, PhD, Associate Professor of Oncology, Chair, Department of Pathology and Laboratory Medicine and Director, Anatomic Pathology and Charles Roche, MD, Assistant Professor of Oncology, Department of Diagnostic Radiology.
- Through the bi-weekly ceremonies held by Roswell Park, nearly 100 patients, survivors and families
 have visited the Bridge of Hope at Canalside to hang bells in honor of their survivorship or in
 memory of a loved one.
- Roswell Park had another large presence at the JP Morgan Corporate Challenge race in Buffalo with a team of 146 employees. In addition, Roswell Park once again created inspiring t-shirts for Team Roswell members to wear with pride.
- Led by Dr. Ermelinda Bonaccio, Director, Mammography, and other members of the Roswell Park
 Breast Cancer Team, Roswell Park employees joined Team Roswell at breast cancer awareness
 events throughout the summer and fall of 2017, including the Susan G. Komen Race for the Cure (16
 Team Roswell members), American Cancer Society Making Strides Against Breast Cancer Walk (120
 Team Roswell/Bosom Buddies members). Each event raised awareness and funds for breast cancer
 detection, treatment and research.
- Roswell Park provided sponsorship of the American Lung Association's Fight for Air Climb of Buffalo. A group of 12 employees participated in the event, raising nearly \$3,500 before climbing 37 flights of stairs at the annual event.
- Twenty-six Roswell Park employees participated in the Undy Run/Walk. In addition, a table of
 educational information was available to all participants of this event. Organized by the Colon
 Cancer Alliance, the Undy Run/Walk raises awareness within the Western New York community
 about colon cancer screening and prevention.

• The Yroswell Street Team brought the message of cancer awareness to the community, especially Western New York's young people, at 48 events. The Institute also encouraged young people throughout the area to find out about the resources they need to become the next generation of cancer professionals and advocates. Events that the Street Team participated in and brought awareness information to, included: various events for The Ride For Roswell (including the Celebration of Hope and fundraising initiatives), many WNY high school and middle school wellness fairs, Roswell Park's Employee Appreciation Day, Making Strides Against Breast Cancer Walk, Komen Run/Walk, Tree of Hope, the Junior Robotic Surgeon Challenge Program, Hockey Fights Cancer Night at KeyBank Center, Kissmas Bash, BNMC Student Open House and more.

• 2017 Junior Robotics Surgery Challenge (JRSC)

Sixty-seven students from 28 different schools competed in Roswell Park's 4th annual Junior Robotic Surgeon Challenge. This program trains high school students in the basics of robot-assisted surgery using the same curriculum used to train surgeons. The program was designed by Khurshid Guru, MD, Chair of the Department of Urology and Director of Robotic Surgery at Roswell Park. Educational partners for the 2017 program were the Albright Knox Art Gallery, Say Yes to Education, the University at Buffalo, Imagine&, and Atlas Test Prep. Additionally, three sponsorship partners provided opportunities for students in need of financial assistance and provided scholarship opportunities: Key Bank, The Community Foundation for Greater Buffalo, BNMC, Buffalo Renaissance foundation, and the Roswell Park Alliance Foundation.

• Summer Block Party Brings Communities Together

Supported by Roswell Park and other members of the medical campus, the Buffalo Niagara Medical Campus (BNMC) hosted a Summer Block Party in Roswell Park's Kaminski Park & Gardens. The event brought employees from all BNMC businesses and organizations together with members of our local community. Attendees enjoyed vendors, music, games, food and networking.

- On Saturday, July 29 over 90 bladder cancer patients and survivors gathered at Roswell Park for
 an afternoon of networking and education on issues that specifically related to them as survivors of
 bladder cancer. Attendees were able to visit with their doctors and nurses and a select group of
 patients were honored for their efforts to be ambassadors for others battling the disease.
- The **Breath of Life Celebration** hosted nearly 80 patients to celebrate their lung cancer survivorship on Saturday, November 18. Patients learned about Roswell Park's survivorship clinic, pulmonary prehab, robotic surgery, mesothelioma, smoking cessation and more.
- Eighty-seven patients and their caregivers who had been affected by **pancreatic cancer** were invited for a free educational evening filled with support and companionship on Friday, December 1. The event featured an overview of recent advances in pancreatic cancer, genetic testing overview, nutrition information and talks from Drs. Christos Fountzilas and Moshim Kukar.
- Team Roswell Participates in Light Up The Night for the Leukemia and Lymphoma Society
 Dr. Francisco Hernandez-Ilizaliturri, Chief, Lymphoma & Myeloma, led more than 50 Roswell Park
 employees as part of Team Roswell in the Leukemia & Lymphoma Society's Light the Night Walk on
 Friday, September 22 to show support for his patients and the community.
- On Saturday, October 21, over 60 breast cancer patients and survivors from Breast Care of Western
 New York attended an educational workshop to learn about survivorship resources that are
 offered to them through Roswell Park. This was an informative and inspirational event that allowed
 many survivors to connect with one another and offer support through their similar experiences.

Roswell Park and the Buffalo Sabres hosted a prostate cancer education & early detection event at
the KeyBank Center on Tuesday, November 14. During this event, 156 patients were seen as part of
the early detection clinic and 90 individuals attended the event for education on prostate cancer
survivorship.

• Roswell Park Employees Offer Support for Hurricane Maria Victims

Roswell Park employees enthusiastically answered the call after the island country of Puerto Rico was devastated by **Hurricane Maria**. Within the span of only a few days, bins overflowed with canned goods, diapers, flashlights, pet food and other necessities that were shipped to Puerto Rico following the natural disaster there. Roswell Park's Office of Diversity and Inclusion spearheaded the effort, which included contributions from across Roswell Park. The items were gratefully accepted by The Hispanic Heritage Council of Western New York and The Belle Center, which named Roswell Park an official site for relief efforts.

Over 200 Turkeys Donated to Rock Out Hunger

Roswell Park employees donated over 3,000 pounds of turkey to Rock Out Hunger, benefitting the Food Bank of Western New York. David Scott, Roswell Park Director of Diversity and Inclusion, presented over 200 frozen turkeys to DJ Jickster as part of the campaign, sponsored by 97Rock and WKBW.

- The first experience many of our patients have with Roswell Park is visiting the Institute's website. In fiscal year 2018, our **Online Faculty Directory** was viewed more than 50,700 times, averaging about 4,200 pageviews per month. The website was viewed 3,752,617.
- Roswell Park encourages opportunities for minority business enterprises (MBE), woman-owned
 enterprises (WBE), small businesses and other disadvantaged business programs. During this fiscal
 year, RPCI purchased 40 percent of Institute-procured goods and services from minority- or womenowned business enterprises (MWBE). This is the fifth year in a row that Roswell Park surpassed the
 goal of 30 percent.
- During this fiscal year, the Office of Diversity & Inclusion held 18 Resume Writing classes in the community (six at the Buffalo Employment and Training Center, six at New York State Department of Labor, three at Native American Community Services, two The Belle Center of WNY and one at the Fruit Belt Coalition) 110 people attended these classes and 16 people were hired at RPCI after attending. In addition, the Office of Diversity & Inclusion participated in community job fairs at the Buffalo Employment and Training Center, The International Institute, Delevan-Grider Community Center, North Buffalo Community Center, The Pride Center of Western New York, True Bethel Baptist Church and University at Buffalo Educational Opportunity Center 42 people were hired from these fairs. To increase its outreach efforts, the Office of Diversity & Inclusion also collaborated with the Office of Cancer Health Disparities Research to write advertorials in the diversity newspapers including Panorama Hispano News, The Challenger and the Criterion.