

**Fiscal Year 2021
(April 1, 2020, to March 31, 2021) Accomplishments**

AWARDS

Roswell Park Ranks #14 in the U.S. News & World Report Best Cancer Hospitals

Out of nearly 900 hospitals, Roswell Park was once again ranked #14 in U.S. News & World Report's Best Cancer Hospitals feature for 2020-21. Roswell Park was also ranked as High Performing in Lung Cancer Surgery and Colon Cancer Surgery.

The ranking positions Roswell Park among the top 1.5% of cancer hospitals across the nation, and one of only two facilities in New York state among the top 15.

"It takes all of us to achieve a record like Roswell Park's. Our commitment is to be a Roswell where everyone feels like they're part of something bigger than themselves, and you see that reflected in our performance in assessments like this," said Candace Johnson, PhD, President and CEO.

Dr. Gupta named 2020 GRACE Patient Education Ambassador Program Winner

Medhavi Gupta, a fellow in the Hematology-Oncology program, was named a 2020 GRACE Patient Education Ambassador Program winner. Dr. Gupta's research is focused on drug and biomarker development and analyzing disparities in healthcare.

In the program, Dr. Gupta will work collaboratively with GRACE faculty, board members and staff to create content for the GRACE website and learn the most current and effective communication skills needed to succeed in the field.

Candace Johnson, PhD, Named #2 on Power 150 Women List

Candace S. Johnson, PhD, President and CEO, is honored among the region's most successful and influential figures by Buffalo Business First, ranking #2 on Buffalo Business First's Power 150 Women list for the third year in a row.

Also included on the listing are many Roswell Park board members, donors, survivors, supports and friends.

Roswell Park Employees Honored by WNY Women's Foundation

The WNY Women's Foundation, a local nonprofit dedicated to creating a culture of possibility for women, honored unsung heroes and incredible women of WNY. Roswell Park's Kimberly Sweeney, Executive Director of Concierge Services, and Nikia Clark, Health Education Specialist from the Cancer Prevention and Population Sciences team, were among the group of honorees.

Federal Communications Commission Award Supports Virtual Visits

An application led by Thomas Furlani, PhD, Chief Information Officer, to the Federal Communications Commission was successful, obtaining \$600,000 in funding through the COVID-19 Telehealth Program. Roswell Park was the first major healthcare facility in Erie County to be accepted for funding.

“These important federal funds help cover the costs of making our clinical care available through virtual visits and supporting remote work so that we could dramatically reduce the number of people on campus when we most needed it. This program helps make sure that healthcare providers like Roswell Park have the resources they need to provide care effectively despite all that changes that COVID-19 required,” said Dr. Furlani.

“The ability to see and advise our patients through virtual visits was incredibly important over the last few months, an essential part of our program for maintaining needed care in the middle of a pandemic,” says gynecologic oncologist Emese Zsiros, MD, PhD. “I was remotely seeing 15 to 20 patients a day during the peak of the COVID-19 crisis. They were really comforted by knowing we could still address their needs, and it was reassuring for providers too.”

Roswell Park Alliance Foundation Founder Awarded Women of Distinction Award

State Senator Chris Jacobs visited Roswell Park to honor Anne Gioia with the New York State Women of Distinction Award and present her with a formal proclamation. Gioia was selected to receive this prestigious honor for her long-time philanthropy and dedication to Western New York and the Roswell Park community.

After losing her daughter to pediatric cancer, Gioia and her sister-in-law founded the Roswell Park Alliance Foundation, which has raised over \$400 million in support of lifesaving cancer research, treatment and prevention programs at Roswell Park.

Subhamoy Dasgupta, PhD, Earns Prestigious NIH Director’s New Innovator Award

Dr. Subhamoy Dasgupta, Assistant Professor of Oncology in the Department of Cell Stress Biology, established his own research laboratory in 2017 when he came to Roswell Park. In just three years, his contributions to the field of cancer research are so significant they’ve drawn the attention of the U.S. National Institutes of Health.

They have awarded him an NIH Director’s New Innovator Award for 2020, which is part of the NIH’s High-Risk, High-Reward Research Program supporting exceptional and innovative research from scientists early in their career.

“The breadth of innovative science put forth by the 2020 cohort of early career and seasoned investigators is impressive and inspiring,” said NIH Director Francis S. Collins, MD, PhD. “I am confident that their work will propel biomedical and behavioral research and lead to improvements in human health.”

Optum Renews Distinction for Roswell Park’s Blood and Marrow Transplant Program

Roswell Park, one of the first centers in the world to routinely offer blood and marrow transplants (BMT) and other forms of cellular therapy, has been recognized once more as an Optum Center of Excellence in BMT for pediatric and adult patients. Roswell Park has been identified as a Center of Excellence for BMT since 2005.

“We are so fortunate to have such a comprehensive team involved in the care of our patients,” says Philip McCarthy, MD, Director of the Transplant and Cellular Therapy Center. “It’s everyone’s commitment to high standards that aids in survival and quality of life for our patients year after year. The acknowledgement by Optum helps patients and their loved ones to make informed decisions regarding cancer care.”

Dr. Kunle Odunsi Recognized by Buffalo Business First

Roswell Park Deputy Director Kunle Odunsi, MD, PhD, FRCOG, FACOG, received a C-Level Executive Award for 2020 from Buffalo Business First. Dr. Odunsi was recognized among “the most successful, innovative and forward-thinking” executives.

“Day in and day out, Dr. Odunsi is working to improve the lives of people both in Buffalo and around the world,” says Candace S. Johnson, PhD, President and CEO. “His focus on patients as he guides our groundbreaking research makes him stand out as a physician, a researcher and a visionary healthcare leader.”

Dr. Kunle Odunsi Earns Team Science Award for Work with World-Renowned Immunologist

Roswell Park Deputy Director Kunle Odunsi, MD, PhD, FRCOG, FACOG, received recognition in November in honor of his work with the “lab family” of the late renowned immunologist Lloyd J. Old, MD.

The Society for the Immunotherapy of Cancer (SITC) presented its 2020 SITC Team Science Award to Dr. Odunsi and fellow scientists who worked alongside Dr. Old at this year’s virtual 35th Anniversary Annual Meeting.

“I am happy to have spent time collaborating alongside Dr. Old,” said Dr. Odunsi. “This award represents not just me, but countless young minds researchers who have had the same privilege of knowing Dr. Old, as well.”

Ashley Snowden Named on Buffalo Business First’s 40 Under 40 List

Buffalo Business First’s honored Ashley Snowden, Director of Physician Liaison Marketing and Corporate Relations, on its 40 Under 40 list for continued success in her profession, as well as heavy involvement in community activities.

Natasha Allard Named on Buffalo Business First’s 30 Under 30 List

Natasha Allard, MBA, Integrated Marketing Communications Manager, was named to Buffalo Business First’s 30 Under 30 list. As a member of the marketing team, Natasha manages social media, special events, Project Best Life and other special projects for Roswell Park.

Abhay Singh, MBBS, MPH, Recognized at American Society of Clinical Oncology Virtual Meeting

Dr. Abhay Singh was awarded the Conquer Cancer–Syndax Pharmaceuticals Inc. Endowed Merit Award by the American Society of Clinical Oncology for his role in important research on the use of targeted drugs and immunotherapies on hematologic cancers. In conjunction with Swapna Thota, MD, the Roswell Park team last year reported that newer treatment approaches can reduce the risk of therapy-related myelodysplastic syndrome or acute myeloid leukemia.

Dr. Eric Kaufmann Honored for Prostate Cancer Procedure He Developed

Department of Urology surgeon Eric Kaufmann, MD, was recognized for his novel approach for prostate cancer surgery by the American Urological Association, receiving a Best Video award for 2020.

Dr. Kaufmann’s video details a technique he developed for performing radical prostatectomy using what is known as extended prostatic urethral preservation. This technique preserves urinary-tract anatomy, allowing the potential for faster urinary control post-surgery. At Roswell Park, 100% of prostatectomy surgeries are performed using robotic assistance, a minimally invasive option that enables a speedier recovery in patients.

Drs. Igor Puzanov, Andrew Hyland, Maciej Goniewicz Acknowledged as Influential Researchers

Clarivate Plc’s Highly Cited Researchers list for 2020 included 3 Roswell Park experts – Igor Puzanov, MD, MSCI, FACP, Andrew Hyland, PhD, and Maciej Goniewicz, PhD, PharmD.

The list recognizes researchers who have demonstrated “significant influence” through papers that have been highly cited and referred to in publications over the last 10 years. These three doctors have all author publications that rank in the top 1% for their fields.

Christos Fountzilias, MD, Earns Merit Award

Dr. Christos Fountzilias earned a Merit Award from the Scientific Committee of the European Society of Medical Oncology’s Immuno-Oncology Virtual Congress for his study “Temporospatial heterogeneity in metastatic colorectal cancer (mCRC)” (abstract 3030) at the organization’s virtual meeting.

Elliot Kramer, MD/PhD Trainee, Wins George Mayers Award

The George Mayers Award for Excellence in Immunology is given annually to a student in their third or fourth year of study in the Tumor Immunology Track, with outstanding academic achievements. This year, the Department of Immunology selected Elliot Kramer, who is an MD/PhD trainee in the laboratory of Scott Abrams, PhD.

Candace Johnson, PhD, Named to Power 100 List

President and CEO Candace Johnson, PhD, has been named to City and State’s Health Power 100 List. Dr. Johnson was ranked by the media organization at 44th among medical professionals

and policymakers, and is the only Western New Yorker named to the top 50.

This year, the publication states, healthcare was New York's top priority as COVID-19 "tore through the state." Under Dr. Johnson's guidance, City and State says, "her world-class cancer center has kept up the fight, treating patients and pioneering innovative treatments while adapting to the coronavirus threat."

Medhavi Gupta, MD, Earns Award from American Society of Clinical Oncology

Dr. Medhavi Gupta earned a Conquer Cancer Foundation Merit Award from the American Society of Clinical Oncology (ASCO) during its Gastrointestinal Symposium. During the research meeting, she shared an update on the phase 1 trial involving SurVaxM in neuroendocrine tumors.

National Federation for Just Communities Honors Roswell Park's Dr. Rodney Haring

The National Federation for Just Communities of Western New York, an agency that works to promote understanding and respect, honored Rodney Haring, PhD, MSW, Director of Roswell Park's Center for Indigenous Cancer Research (CICR), with a Community Hero Award. Each awardee at this year's event was picked based on the impact they've had in our region and how it reflects the mission of the NFJC.

Shortly before the COVID-19 pandemic, Dr. Haring announced the launch of the CICR — the first initiative of its kind in the Northeast. Since then, he and his team have been pivotal in disseminating critical information. He has hosted webinars and fireside chats alongside international cancer experts to focus on the unique concerns tribes and Indigenous nations faced as they coped with the pandemic.

In late 2020, Dr. Haring was named to the national COVID-19 Prevention Network's Native Expert Panel, a role in which he works to ensure diversity and culturally appropriate communication in COVID vaccine clinical trials.

Roswell Park Again Named an Optum Center of Excellence for Adult and Pediatric Care

Roswell Park has once again been named a Center of Excellence (COE) for pediatric and adult populations by health services leader Optum for providing quality treatment for cancer patients. It is the only center with this designation in Western and Upstate New York.

"Optum provides a great resource to patients through this designation and all the work that goes into it," says Boris Kuvshinoff, MD, MBA, Chief Medical Officer at Roswell Park. "Patients young and old can feel confident knowing they are receiving the highest-quality comprehensive cancer care when they come to Roswell Park."

"We selected Roswell Park because of its commitment to providing high-quality care to patients receiving cancer treatment," says Jon R. Friedman, MD, FAST, Chief Medical Officer at Optum for Medical Benefit Management. "We commend them for their excellence in providing a best-practice cancer program."

Roswell Park is also designated as an Optum Center of Excellence for both adult and pediatric

blood and marrow transplant (BMT), and has received that designation each year since 2005.

121 Roswell Park Physicians Named as Top Doctors for 2021

121 Roswell Park physicians were honored with the Top Doctors distinction from Buffalo Spree magazine. The doctors were recognized across 33 different subspecialties, in a list compiled through a peer survey of WNY physicians. The physicians recognized with this distinction:

- Ajay Abad, MD, Medical Oncologist – Neurology
- Stacey Akers, MD, FACOG, Gynecologic Oncologist – Gynecologic Oncology
- Ronald Alberico, MD, Director of Neuroradiology/Head & Neck – Diagnostic Radiology; Radiology
- Saif Aljabab, MBBS, MD, FRCP, Radiation Oncologist – Radiation Oncology
- Nikolaos Almyroudis, MD, FACP, Internal Medicine/Infectious Disease Expert – Infectious Disease
- Steven Ambrusko, MD, MS, Pediatric Oncologist and Director of Sickle Cell & Hemoglobinopathy Services with Roswell Park Oishei Children’s Cancer and Blood Disorders Program – Pediatric Hematology and Oncology
- Gissou Azabdaftari, MD, Director of Pathology Network Shared Resource – Pathology
- Andrew Bain, MD, Interventional Endoscopist, Chief of Endoscopy – Gastroenterology
- Barbara Bambach, MD, Pediatric Oncologist with Roswell Park Oishei Children’s Cancer and Blood Disorders Program – Pediatric Hematology and Oncology
- Matthew Barth, MD, Pediatric Oncologist with Roswell Park Oishei Children’s Cancer and Blood Disorders Program – Pediatric Hematology and Oncology
- Michael Bax, MD, Dermatologic Oncologist – Dermatology
- Ahmed Belal, MD, Operations Director of Cardiac Imaging Group, Department of Radiology – Radiology
- Paul Bogner, MD, Director of Surgical Pathology – Pathology
- Ermelinda Bonaccio, MD, Chair of Diagnostic Radiology – Diagnostic Radiology; Radiology
- Kimberly Brady, MD, Dermatologic Oncologist – Dermatology
- Helen Cappuccino, MD, FACS, Breast Surgeon – Breast Surgery
- Desi Carozza, MD, Palliative Medicine – Hospice & Palliative Medicine
- Amy Allen Case, MD, FAAHPM, Lee Foundation Endowed Chair of the Department of Palliative Care and Supportive Care, and Chief of the Palliative Care Program – Hospice and Palliative Medicine
- Jon Michael Chan, MD, Surgical Oncologist – Otolaryngology
- Gurkamal Chatta, MD, Clinical Chief of Genitourinary Medicine – Oncology
- Varun Chowdhry, MD, Radiation Oncologist with the Roswell Park Care Network, Medical Director of Southtowns Radiology Oncology – Radiation Oncology
- Ivan Cohen, MD, MS, Anesthesiologist – Pain Medicine
- Oscar de Leon-Casasola, MD, Chief of Pain Medicine – Pain Medicine
- Paul DeJac, MD, Chief of Hospitalist Medicine – Internal Medicine
- Todd Demmy, MD, FACS, Thoracic Surgeon – Thoracic Surgery
- Elisabeth Dexter, MD, FACS, FCCP, Thoracic Surgeon – Thoracic Surgery

- Ananda Dharshan, MD, FACP, Director of the Intensive Care Unit – Critical Care Medicine
- Grace Dy, MD, Chief of Thoracic Oncology – Oncology
- Amy Early, MD, FACP, Medical Oncologist – Oncology
- Stephen Edge, MD, FACP, FASCO, Surgical Oncologist and Vice President for System Quality and Outcomes – Breast Surgery
- Andrew Fabiano, MD, FAANS, Director of the Spinal Oncology Center – Neurosurgery
- Julia Faller, DO, MS, Medical Director of Perioperative Services – Anesthesiology
- Robert Fenstermaker, MD, Chair of Neurosurgery and Director of Neuro-Oncology – Neurosurgery
- Peter Frederick, MD, FACOG, Gynecologic Oncologist, Clinical Chief of Gynecology and Director of Minimally Invasive Surgery in Gynecologic Oncology – Gynecologic Oncology
- Simon Fung-Kee-Fung, MD, Radiation Oncologist – Radiation Oncology
- Anne Grand’Maison, MD, Medical Oncologist and Director of Sarcoma Medical Oncology Program – Oncology
- Elizabeth Griffiths, MD, Medical Oncologist and Director of the Myelodysplastic Syndrome Program – Hematology
- Vishal Gupta, MD, Head/Neck Oncologic Surgeon – Otolaryngology
- Khurshid Guru, MD, Chair of Urology and Director of Robotic Surgery – Urology
- Eric Hansen, MD, Medical Oncologist – Hospice and Palliative Medicine
- Omar Hasan, MD, Diagnostic Radiologist – Interventional Radiology
- Mark Hennon, MD, FASC, Thoracic Surgeon and Director of Thoracic Surgery Training – Thoracic Surgery
- Francisco Hernandez-Ilizaliturri, MD, Medical Oncologist and Chief of Lymphoma – Hematology; Oncology
- Wesley Hicks Jr., MD, FACS, Chair of Head & Neck/Plastics & Reconstructive Surgery – Otolaryngology
- Steven Hochwald, MD, MBA, FACS, Surgical Oncologist, and Chief of Gastrointestinal/Endocrine Surgery – Colon and Rectal Surgery; General Surgery
- Frederick Hong, MD, Medical Oncologist/Hematologist with Roswell Park Care Network – Hematology
- Nathaniel Ivanick, MD, Thoracic Surgeon – Pulmonary Disease
- Renuka Iyer, MD, Medical Oncologist, Section Chief for Gastrointestinal Medicine and Co-Director of the Liver and Pancreas Tumor Center – Oncology
- John Kane III, MD, FACS, Chair of Surgical Oncology and Chief of the Melanoma/Sarcoma Service – General Surgery
- Eric Kauffman, MD, Urologist – Urology
- Kara Kelly, MD, Waldemar J. Kaminski Endowed Chair of Pediatrics at Roswell Park and Chair of the Roswell Park Oishei Children’s Cancer and Blood Disorders Program – Pediatric Hematology and Oncology
- Thaer Khoury, MD, FCAP, Chief of Breast Pathology – Pathology
- Michael Krabak, MD, PhD, Medical Oncologist/Hematologist with Roswell Park Care Network – Hematology
- Joseph Kuechle, MD, PhD, Orthopedic Oncologist – Orthopedic Surgery

- Michael Kuettel, MD, PhD, MBA, Barbara C. & George H. Hyde Chair in Radiation Medicine – Radiation Oncology
- Moshim Kukar, MD, FACS, Surgical Oncologist (gastrointestinal and endocrine surgery) – Colon and Rectal Surgery; General Surgery
- Boris Kuvshinoff II, MD, MBA, Surgical Oncologist and Chief Medical Office – General Surgery
- Dominick Lamonica, MD, Director of Nuclear Medicine – Nuclear Medicine
- Thomas Laudico, DO, Director of Body CT and Ultrasound, Department of Diagnostic Radiology – Radiology
- Bethany Lema, MD, Dermatologist – Dermatology
- Mark Lema, MD, Chair of Anesthesiology, Preoperative Medicine and Pain Medicine – Anesthesiology
- Charles LeVea, MD, PhD, Chair of the Department of Pathology and Laboratory Medicine – Pathology
- Ellis Levine, MD, Medical Oncologist and Chief of Breast Medicine – Oncology
- Qiang John Li, MD, PhD, Urologist – Urology
- Lindsay Lipinski, MD, FAANS, Neurosurgeon – Neurosurgery
- Robert Lohman, MD, Plastic and Reconstructive Surgeon – Plastic and Reconstructive Surgery
- Elizabeth Mahoney, MD, FASA, Anesthesiology – Anesthesiology
- Martin Mahoney, MD, PhD, Staff Physician and Medical Director of both the Employee Health Clinic and New York State Smokers' Quitline – Family Medicine
- Laura Mango, MD, Medical Director of the Assessment and Treatment Center – Emergency Medicine; Internal Medicine
- Gary Mann, MD, FACS, Surgical Oncologist – Colon and Rectal Surgery
- Renee Mapes, DO, Anesthesiologist – Anesthesiology
- Benjamin Matson, MD, Anesthesiologist – Pain Medicine
- David Mattson Jr., MD, Radiation Oncologist – Radiation Oncology
- Philip McCarthy, MD, Medical Oncologist and Director of the Transplant & Cellular Therapy Center – Oncology
- Benjamin McGreevy, MD, Director of Body MRI, Department of Diagnostic Radiology – Diagnostic Radiology
- Ryan McSpadden, MD, Surgical Oncologist – Otolaryngology
- Laszlo Mechtler, MD, FAAN, FASN, Medical Oncologist and Chief of Neuro-Oncology – Neurology
- James Mohler, MD, Urologist and Senior Vice President for Translational Research – Urology
- Wong Moon, MD, FACS, Plastic/Reconstructive Surgeon – Plastic and Reconstructive Surgery
- Katherine Mullin, MD, Director of Infection Control and Prevention – Infectious Disease
- Steven Nurkin, MD, MS, FASC, Surgical Oncologist – Colon and Rectal Surgery
- Chumy Nwogu, MD, PhD, FACS, Thoracic Surgeon – Thoracic Surgery

- Tracey O'Connor, MD, Breast Medical Oncologist – Oncology
- Kunle Odunsi, MD, PhD, FRCOG, FACOG, Deputy Director, Chair of Gynecologic Oncology, the Robert, Ann & Lew Wallace Endowed Chair in the Cancer Immunotherapy and Executive Director of the Center for Immunotherapy – Gynecologic Oncology
- Can Ozturk, MD, Plastic/Reconstructive Surgeon – Plastic and Reconstructive Surgery
- Cemile Nurdan Ozturk, MD, Plastic/Reconstructive Surgeon – Plastic and Reconstructive Surgery
- Gabrielle Paoletti, MD, Anesthesiologist – Critical Care Medicine
- Gyorgy Paragh, MD, PhD, Dermatologic Oncologist – Dermatology
- Michael Petroziello, MD, Interventional Radiologist – Interventional Radiology
- Anthony Picone, MD, PhD, MBA, FACP, FACS, Thoracic Surgeon – Thoracic Surgery
- Robert Plunkett, MD, Neurosurgeon – Neurosurgery
- Saraswati Pokharel, MD, PhD, Medical Pathologist – Pathology
- Mariola Poss, MD, FACS, Surgical Oncologist with Roswell Park Care Network
- Dheerendra Prasad, MD, MCh, FACRO, Director of Gamma Knife Center and Medical Director of Radiation Medicine – Radiation Oncology
- Samuel Puvendran, MD, Anesthesiologist – Critical Care Medicine
- Igor Puzanov, MD, MSCI, FACP, Chief of Melanoma, Senior Vice President for Clinical Investigation and Director of the Center for Early Phase Clinical Trials – Oncology
- Marie Quinn, MD, Director of Breast Imaging – Diagnostic Radiology
- Timothy Quinn, MD, Chief of Critical Care – Critical Care Medicine
- Kevin Robillard, MD, Gastrointestinal Endoscopist – Gastroenterology
- Charles Roche, MD, Director of Quality Safety and Research in Diagnostic Radiology – Diagnostic Radiology; Radiology
- Denise Rokitka, MD, MPH, Pediatric Oncologist with the Roswell Park Oishei Children's Cancer and Blood Disorders Program and Director of the Pediatric, Adolescent Cancer Survivorship; Young Adult; and Oncofertility programs at Roswell Park – Pediatric Hematology and Oncology
- Maureen Ross, MD, PhD, Medical Oncologist – Oncology
- Ilene Rothman, MD, Dermatologist – Dermatology; Pediatric Dermatology
- Beverly Schaefer, MD, Pediatric Oncologist with the Roswell Park Oishei Children's Cancer Center and Blood Disorder Programs – Pediatric Hematology and Oncology
- Thomas Schwaab, MD, PhD, Urologist and Chief of Strategy, Business Development and Outreach – Urology
- Brahm Segal, MD, Chief of Infectious Disease and Chair of Internal Medicine – Infectious Disease
- Rajeev Sharma, MD, MBBS, FACE, Endocrinologist – Endocrinology, Diabetes and Metabolism
- Anurag Singh, MD, Radiation Oncologist and Director, Radiation Research – Radiation Oncology
- Joseph Skitzki, MD, FACS, Surgical Oncologist – General Surgery
- Edward Spangenthal, MD, Clinical Chief of Cardiology – Cardiology

- Raymond Sroka, MD, PharmD, Director of Anesthesia Perioperative Evaluation – Anesthesiology
- Kazuaki Takabe, MD, PhD, FACS, Surgical Oncologist, Chief of Breast Surgery and Alfiero Foundation Endowed Chair of Breast Oncology – Breast Surgery
- Garin Tomaszewski, MD, Interventional Radiologist – Interventional Radiology
- Pallawi Torka, MD, Medical Oncologist – Hematology; Oncology
- Clare Twist, MD, Pediatric Oncologist with the Roswell Park Oishei Children’s Cancer and Blood Disorders Program and Directors of Pediatric Experimental Therapeutics, Roswell Park – Pediatric Hematology and Oncology
- Michelle Walter, DO, Staff Physician, Supportive and Palliative Care – Hospice and Palliative Medicine
- Kimberly Wooten, MD, Head/Neck Oncologic Surgeon – Otolaryngology
- Anthony Yarussi, MD, Associate Chief of Surgical Anesthesia – Anesthesiology
- Sai Yendamuri, MD, FASC, Chief of Thoracic Surgery – Thoracic Surgery
- Jessica Young, MD, Breast Surgical Oncologist – Breast Surgery
- Emese Zsiros, MD, PhD, FACOG, Gynecologic Oncologist – Gynecologic Oncology

Roswell Park Workforce Hires and Promotions

The Roswell Park team continued to grow this year, with the addition of talented individuals across all areas of operations, from clinical care and education to new frontiers in cancer research. Named to key faculty or administrative positions this year were:

- Gissou Azabdaftari, MD, named Director of Pathology Network Shared Resource
- Tong Dai, MD, PhD, appointed to Associate Director for Solid Tumor
- Lesley Diaz, named Director of Organizational Developments
- David Donovan, appointed to Vice President, Strategy Planning and Materials Management
- Stephen Edge, MD, named Vice President, System Quality and Outcomes
- Peter Frederick, MD, FACOG, appointed to Clinical Chief, Gynecologic Oncology
- Gregory Freund, MD, PhD, named Director of Cytopathology
- Kai Fu, MD, PhD, named Director of Hematopathology Division of the Department of Pathology
- Saby George, MD, FACP, appointed to Director of Network Clinical Trials
- Elizabeth Griffiths, MD, appointed as Associate Director for Liquid Tumor, in the Center for Early Phase Clinical Trials
- Steven Hochwald, MD, MBA, FACS, named Chief, Perioperative Services
- Danielle Keppel, MPA, CPHQ, CIC, CLSSBB, appointed to Director of Performance Improvement
- Ellis Levine, MD, appointed to Director of Academic Affairs for Clinical Investigations
- Mary Ann Long, RN, MS, appointed to Senior Vice President of Nursing
- Joseph Maher, MD, named Director of Clinical Genetics
- Sunita Manuballa, DDS, named Chief of Dentistry and Maxillofacial Prosthetics (DMFP)
- Maya Mathew, MD, named as Medical Director of Dorothy G. Griffin Radiation Oncology Center in Oneida, NY, part of the Roswell Park Care Network

- Melissa Moffitt, MD, named Fellowship Program Director, Gynecology Oncology
- Christine O'Mara, BSN, CCN, named Director, Transitions of Care
- Gyorgy Paragh, MD, PhD, named Chair of the Department of Dermatology, Lawrence P. & Joan Castellani Family Chair in Dermatology.
- Maria Pinti, BSN, RN, CIC, named Senior Infection Control Coordinator
- Saraswati Pokharel, MD, PhD, appointed to Director of Thoracic Pathology
- Igor Puzanov, MD, MSCI, FACP, named Senior Vice President, Clinical Investigation
- Timothy Quinn, MD, appointed to Chief of Critical Care
- Bhuvana Ramkumar, MD, appointed to Medical Director of Golisano Medical Oncology Center
- Sara Randolph named Executive Director of Health Plan Partnerships and Value Based Care
- Elizabeth Repasky, PhD, appointed Interim Chair of Immunology
- Rev. Melody Rutherford, MDiv, MS, appointed to Director of Spiritual Care
- Karen Sharrah, DNP, APRN, FNP-C, NE-BE, appointed as Executive Director, Advanced Professional Provider Services
- Laurie Smith, appointed to Vice President of Clinical Research Services
- Andrew Storer, PhD, DNP, FNP-C, ACNP-BC, ENP-C, FAANP, appointed as Executive Director of Nursing Education
- David Tear, MBA, appointed to Vice President, Roswell Park Care Network
- Jeff Walker, MBA, appointed to Executive Vice President of Operations and Transformation
- Eunice Wang, MD, appointed to Medical Director, Infusion Services
- Jillianna Wasiura, BSN, RN, appointed to Director of Drug Diversion
- Emese Zsiros, MD, PhD, FACOG, appointed Director of Research, Gynecologic Oncology

CLINICAL AND SCIENTIFIC ACHIEVEMENTS

Cuban Collaboration Goes Prime Time

Roswell Park's collaboration with the Centro de Inmunología Molecular (CIM) in Havana, Cuba was the focus of a one-hour documentary on PBS titled "NOVA: Cuba's Cancer Hope." The episode focused on how Cuba came to develop several important medical therapies, and how Roswell Park became the first American research center to sponsor a clinical trial with the Cuban-made drug CIMAvax-EFG – a historic collaboration between Cuban and American scientists.

Several experts from Roswell Park were interviewed for this project, including Drs. Candace Johnson, Kunle Odunsi, Kelvin Lee, Mary Reid and Grace Dy. NOVA is the most-watched primetime science series on American television, reaching an average of five million viewers per week.

Roswell Park's phase I/II clinical trial of CIMAvax-EGF as part of a combination treatment for some lung and head/neck cancers is underway.

Collaborative Effort Brings Investigational COVID-19 Treatment Approach to WNY

Roswell Park, in collaboration with the University at Buffalo, launched a collaborative clinical trial to make a new investigational treatment option available to local patients who were hospitalized and diagnosed with critical to severe COVID-19.

Led by Igor Puzanov, MD, MSci, FACP, the study allowed eligible patients at four local medical facilities to participate in a large international study of the anti-inflammatory agent sarilumab.

“Some of the ways that COVID-19 affects the body are similar to how cancer and autoimmune conditions affect the body, so we can draw on what we know from those fields to address the pressing challenge of how best to treat the novel coronavirus,” said Dr. Puzanov, Chief of Melanoma, Director of Early Phase Clinical Trials Program and overall principal investigator of the trial, who has done extensive work with a similar drug, tocilizumab.

Roswell Park-Made Hand Sanitizer Debuts on Campus

A team of engineers and research scientists at Roswell Park worked collaboratively to see if it was possible to produce hand sanitizer to meet the cancer center’s needs. With two successful test runs, the team – led by Dale Henry, Ravindra Pandey, PhD, and Raymond Jones – set out to produce 100+ gallons of hand sanitizer in early April, which were distributed throughout the Roswell Park campus.

“Our research community is very experienced and learned in preparing solutions for their labs as part of their daily work,” noted Henry, Roswell Park’s Chief of Scientific Operations Officer.

Roswell Park Offers Convalescent Plasma to Patients with Severe COVID-19

Roswell Park began offering plasma from the donated blood of healthy individuals who have had COVID-19 but have fully recovered and cleared to the virus to patients with severe or life-threatening COVID-19 through an expanded access program authorized by the FDA. Medical oncologist George Chen, MD, and Joanne Becker, MD, Clinical Chief of the Division of Laboratory Medicine and Medical Director of the Roswell Park Donor Center, led this effort.

“There is early evidence to suggest that this approach can be clinically beneficial for patients with severe COVID-19,” says Dr. Chen, Associate Professor of Oncology in Roswell Park’s Department of Medicine. “It’s basically a kind of passive immunization designed to bridge patients over until their own immune system kicks in and generates long-term antibodies against COVID-19.”

Chronic Stress Can Impact Response to Radiation Therapy, Study Suggests

Stress reduction or use of beta blockers may improve the effectiveness of radiation treatments, a study led by Elizabeth Repasky, PhD, found.

“Our work suggests that the benefits of radiation therapy, both on the target site and in tumors located elsewhere in the body, are directly related to the degree of stress an individual may be experiencing. In our laboratory studies, irradiated tumors went away faster when stress was

reduced, and even distant tumors that did not receive radiation also shrunk or disappeared,” says Dr. Repasky, Cell Stress Program co-leader and William Huebsch Professor of Immunology at Roswell Park. “We have demonstrated that even a mild stress that occurs over a longer period of time — not just singular moments, but chronic stress — can significantly influence the efficacy of radiation therapy.”

The effects the team observed in their preclinical study hinge upon the body’s “fight or flight” response to stress through the network of nerves and organs, known as the adrenergic nervous system.

“Researchers have suspected a relationship between stress and cancer treatment outcomes for some time, but many questions remain,” notes co-author Anurag Singh, MD, Director of Radiation Research and Professor of Oncology in the Department of Radiation Medicine. “Our results suggest that by blocking the β 2 adrenergic receptor, you may not only make radiation and chemotherapy work better, you give a boost to the immune system — and may even be able to reduce metastasis, or spread of a tumor to a different part of the body.”

Pawel Kalinski, MD, PhD, and Team Receive FDA Approval to Test Therapy for COVID-19-Positive Cancer Patients

A unique two-drug immunotherapy combination first evaluated at Roswell Park as an approach for treating some cancers became available to cancer patients with COVID-19 through a clinical trial at Roswell Park.

The FDA authorized clinical researchers to conduct a study assessing the safety and effectiveness of giving both rintatolimod and interferon alfa to cancer patients with COVID-19, the disease caused by the novel coronavirus.

Dr. Pawel Kalinski, Vice Chair for Translational Research at Roswell Park, was the first researcher to propose giving these two immune-modulating drugs in combination as a cancer treatment. “There are similarities between cancer and COVID-19, which both manage to avoid activating the interferon pathway,” says Dr. Kalinski, Director of Cancer Vaccine and Dendritic Cell Therapies, Rustum Family Professor for Molecular Therapeutics and Translational Research and Professor of Oncology at Roswell Park. “This helps them to go undetected and spread in the patient’s bodies.”

“We believe that the two agents to be tested in our trial, given together, can activate the missing interferon response in COVID-19-infected cells. This would induce protective interferons and other antiviral factors in adjacent cells, stopping the virus from spreading,” says Dr. Kalinski.

Roswell Park Team Proposes Strategy for Making Pancreatic Tumors Respond to Checkpoint Inhibition

The findings from a team led by Agnieszka Witkiewicz, MD, and Erik Knudsen, PhD, suggest that

a combination treatment approach can make some breakthrough immunotherapy drugs effective for more patients with pancreatic cancer.

While most pancreatic cancers have been invulnerable to immune checkpoint inhibitors such as nivolumab and pembrolizumab, this team has uncovered an opportunity to convert many pancreatic tumors to be sensitive to these anti-PD-L1 agents. They showed that a combination of CDK4/6 inhibitors and MEK inhibitors worked together to slow the growth of pancreatic cancer tumors in preclinical cancer models.

E-Cigarette Use Increasing, But Less Likely to Lead to Long-Term Habit

A team from Roswell Park contributed to a group of 10 interrelated studies on tobacco use that shed light on key patterns. The studies, published in *Tobacco Control*, the leading international journal for tobacco scientists, culminated a major collaborative effort to document detailed tobacco use for the ongoing Population Assessment of Tobacco and Health (PATH) Study.

“The most surprising finding was that while we know cigarette smoking is persistent, and we see use of electronic cigarettes increasing, especially among young people, what we are not seeing is that e-cigarette use is anywhere near as persistent as cigarette smoking,” says Andrew Hyland, PhD, Chair of Health Behavior at Roswell Park and scientific lead on the PATH Study.

While both products typically contain nicotine, it could be that cigarettes deliver nicotine more effectively than e-cigarettes, notes Dr. Hyland. Studies have shown that the types of e-cigarettes used during 2013 to 2016 didn’t deliver nicotine as efficiently as cigarettes.

Targeted Drugs and Immunotherapies May Lower Risk of Therapy-Related Hematologic Cancers

In a study presented at the American Society of Clinical Oncology (ASCO) annual meeting 2020, a Roswell Park team reported that newer treatment approaches may reduce the risk of therapy-related myelodysplastic syndrome or acute myeloid leukemia compared to chemotherapy-based treatment strategies.

A team led by Swapna Thota, MD, and Abhay Singh, MBBS, MPH, evaluated the cases of 565,149 patients diagnosed between 2000 and 2015 with melanoma, non-small cell lung cancer, renal cell carcinoma or multiple myeloma. Current standard treatment for all these cancer types relies on drugs that stimulate the immune system. “We hypothesized that increased immune surveillance after treatment with these drugs could half clonal evolution and reduce risk of therapy-related hematologic cancers — specifically myelodysplastic syndrome or acute myeloid leukemia,” said Dr. Thota, Assistant Professor of Oncology in the Department of Medicine.

Roswell Park Suggests New Strategy for Controlling Graft vs. Host Disease

Preclinical work by a team of researchers from Roswell Park’s Transplant and Cellular Therapy Program suggested that the risk of developing acute graft vs. host disease (GVHD) during allogeneic blood/marrow transplant (BMT) can be decreased using an existing class of drugs

called beta adrenergic agonists.

Hemn Mohammadpour, PHD, DVM, Philip McCarthy, MD, Elizabeth Repasky, PhD, and team showed that beta adrenergic receptor (BAR) signaling can be controlled to calm the tendency of the new donor immune system to trigger GVHD in the recipient of the allogeneic BMT, while still allowing the transplanted donor immune cells to fight the recipient's cancer.

The research team found that BAR signaling is a key modulator of acute GVHD but does not negatively impact the GVT effect. BAR signaling, they reported, helps regulate how the host responds to treatment, helping the new donor immune system recognize and eradicate the cancer without excessively damaging normal host tissue.

Roswell Park Deputy Director Picked as Board Member for Influential Immunotherapy Organization

Elected by a body of fellow immunotherapy researchers from across the globe, Deputy Director Kunle Odunsi, MD, PhD, FRCOG, FACOG, has been named an at-large Director for the Society of Immunotherapy of Cancer (SITC) Board of Directors.

"My vision is that SITC becomes a major voice for communicating and advocating for cancer immunology research and treatment, and for the resources that would further propel the immunology revolution to its ultimate destination of changing cancer from a terrifying disease to that of a curable disease," he said.

Roswell Park Identifies Promising Biomarker of Response to Checkpoint Inhibitors

A team of Roswell Park researchers identified a new biomarker that can predict response to immune checkpoint inhibitors (ICI) shortly after patients with non-small cell lung cancer (NSCLC) initiate therapy.

"Although immune checkpoint inhibitors revolutionized cancer treatment for significant numbers of people, many cancer patients do not respond to them and some develop severe toxicity to these drugs," said lead author Fumito Ito, MD, PhD, FACS, Associate Professor of Oncology with the Department of Surgical Oncology and Center for Immunotherapy.

Pretreatment biomarkers such as PD-L1 expression, frequency of tumor-infiltrating lymphocytes and tumor mutational burden are of limited value in guiding decisions about which patients are likely to respond well to checkpoint inhibitors. Uncovering blood-based biomarkers that reflect the change of tumor microenvironment and can predict a patient's response to ICIs could improve current treatment regimens significantly, Dr. Ito noted.

Roswell Park Team's Pioneering Work on Factors Driving Breast Cancer Racial Disparities Draws \$5.2M NCI Award

A multidisciplinary team of experts from Roswell Park Comprehensive Cancer Center earned a prestigious \$5.2 million "R01" grant from the National Cancer Institute for a groundbreaking investigation into clues that immune cells may hold about breast cancer disparities between

Black women and white women.

The team, that includes Christine Ambrosone, PhD, Song Yao, PhD, Scott Abrams, PhD, Thayer Khoury, MD, FACP, and Angela Omilian, PhD, will examine the immune profiles of tumors from Black women and white women with breast cancer to learn how they may differ and whether they may relate to the disparities seen in risk for breast cancer, incidence of aggressive tumors and survival.

This team, with funding from the Breast Cancer Research Foundation, previously discovered that tumor-infiltrating lymphocytes (TILs) in tumors of Black women tended to fall into a class known as “exhausted” phenotype — immune cells that have lost their functional ability to kill tumor cells. The group is now testing whether they see the same patterns in a larger statewide study in collaboration with the New York State Cancer Registry.

Roswell Park is First Center in NYS to Implement Monarch Bronchoscopy Platform

Lung specialists at Roswell Park Comprehensive Cancer Center now have a tool for visualizing and reaching lung nodules through a minimally invasive approach, enabling earlier diagnosis of cancer, smaller biopsies and broader treatment options for patients. Roswell Park has become the first facility in New York State to implement Auris Health Inc.’s Monarch platform for robotic navigational bronchoscopy into its interventional pulmonology program.

Robotic navigational bronchoscopy can benefit patients who have a potentially concerning lung nodule, typically detected by a CT scan. It allows physicians to safely biopsy very small, difficult-to-reach areas of the lung, enabling earlier diagnosis of suspicious lesions that were previously inaccessible without surgery.

The Monarch system integrates robotics and software with bronchoscopy, allowing for real-time, continuous visualization of the airways through a flexible endoscope that physicians can navigate to the outer regions of the lung.

“Earlier technologies did not allow us to effectively reach the lung periphery and determine the nature of the nodule as this new tool can,” said Sai Yendamuri, MD, FACS, Chair of Thoracic Surgery and Professor of Oncology.

Metabolism-Regulated Molecule Might Hold Key to Long-Term Effectiveness of Vaccines

A study led by Kelvin Lee, MD, revealed that a molecule on the surface of long-lived plasma cells (LLPCs) might not only provide longevity for these important blood cells, but it may help fight cancer and many viruses. The team set out to learn what it is about LLPCs that make them different from short-lived plasma cells and what those differences might mean for both cancer treatment and fighting viruses.

These new findings may hold important implications for cancer treatment. Previous research indicated that when CD28 is removed from multiple myeloma cells, chemotherapy is more

effective against this cancer.

Roswell Park Studies Highlight Emerging Treatment Options for Neuroendocrine Tumors

Two studies led by Renuka Iyer, MD, highlight emerging treatment options for patients with neuroendocrine tumors (NETs).

One of the studies focuses on a cancer immunotherapy developed by Robert Fenstermaker, MD, and Michael Ciesielski, PhD, from Roswell Park that has been shown to help patients with brain tumors live longer. SurVaxM, combined with standard therapy, gave brain tumor patients significantly longer survival rates compared with those who received standard therapy alone.

For this study, the team stained NET specimens for the molecule the vaccine targets – survivin, a protein often found at high level in cancerous tumors, where it promotes cancer cell survival through proliferation and metastasis. They found an unusually high level in the specimens. Dr. Iyer and colleagues pursued further studies exploring whether the protein might serve as a prognostic and potentially therapeutic marker in patients with NETs. The team discovered survivin in 52% of the neuroendocrine samples they studied.

Dr. Iyer also led a team of researchers from Roswell Park, Ohio State University Comprehensive Cancer Center and Memorial Sloan Kettering Cancer Center to study nintedanib (brand names Ofev and Vargatef), an oral antiangiogenic agent that targets key tumor cell-signaling pathways. Nintedanib inhibits the fibroblast growth factor receptor (FGFR), which is highly expressed in those tumors. For that reason, the team hypothesized, it could be active in patients with NETS.

The findings were published in *Cancer*, a journal of the American Cancer Society. “We found that nintedanib is effective as a treatment option for NET patients and can slow the cancer growth for almost a year. Nintedanib was well tolerated and delayed deterioration in quality of life,” Dr. Iyer says.

Multimillion-Dollar NCI Awards Support Work of Roswell Park Scientists

Roswell Park’s active portfolio of \$94 million grants across more than 500 separate projects includes new awards funding a diverse range of projects, including explorations into personalized treatments for breast cancer, improvements to robot-assisted surgery and a new treatment option for COVID-19.

These competitive grants to Roswell Park teams include multimillion-dollar awards from the National Cancer Institute (NCI) — \$14.54 million for clinical trials assessing a new strategy for making cancer immunotherapies work for more patients, and \$5.2 million for an investigation into breast cancer disparities between Black women and white women.

“The current public health emergency provides an even greater perspective and appreciation for science, understanding of personal and community health, and hope for disease recovery and prevention,” said Congressman Brian Higgins. “Research grants are highly competitive.

Roswell Park’s consistent success in earning grants is good for scientific advancement and for Western New York.”

Kara Kelly, MD, Contributes to Pediatric Acute Lymphoblastic Leukemia Guidelines

Dr. Kara Kelly, Chair of the Roswell Park Oishei Children’s Cancer and Blood Disorders Program, contributed to the first Pediatric Acute Lymphoblastic Leukemia (ALL) guideline produced by the National Comprehensive Cancer Network (NCCN).

According to Dr. Kelly, the guideline is critical because ALL is the most common cancer in children; this represents the first comprehensive management guideline to be developed collaboratively by experts representing North American pediatric leukemia research groups.

University of Haifa Launches Collaboration with Roswell Park

The Tauber Bioinformatics Research Center at University of Haifa and Roswell Park launched a joint collaboration which will couple the expertise in cancer, genomics and biomedical research at Roswell Park and in bioinformatics at University of Haifa.

The new collaborative research program will be focused on the development of new computational genomic approaches to the analysis of tumor “retrobiome.” The Roswell Park team will provide University of Haifa’s Tauber Bioinformatics Research Center with whole genome sequencing data of DNA and RNA of tumors and matching normal tissues as part of preclinical and/or clinical studies.

The resulting findings may have significance not only for cancer care but for other age-related diseases and aging-associated frailty.

The New Golisano Medical Oncology Center Makes Cancer Care More Accessible in Niagara County

In a ceremony streamed live on Facebook, representatives from Roswell Park and Niagara Falls Memorial Medical Center along with Golisano Foundation Executive Director Ann Costello dedicated the new Golisano Medical Oncology Center, a member site within the Roswell Park Care Network.

The 6,085-square-foot facility, built at a cost of \$2 million, is located on Memorial’s fourth floor. Construction of the center was supported by a \$1.5 million donation from philanthropist and businessman Tom Golisano.

“No longer will a lack of transportation to Roswell’s Buffalo campus be a barrier to receiving care from Roswell’s nationally renowned network of physicians and supportive care teams — teams devoted to reducing the burden of cancer,” said Niagara Falls Memorial Center President and CEO Joseph A. Ruffolo.

“We have a responsibility as a comprehensive cancer center to put our team’s expertise to work for people across our regions and throughout the state. We are so grateful to the Niagara

Falls Memorial team for their commitment to this collaborative, innovative model for serving this community,” added Candace Johnson, PhD, President and CEO.

Bhuvana Ramkumar, MD, a medical oncologist and hematologist who has been providing care through the Roswell Park Care Network, was appointed Medical Director of the Golisano Center.

Roswell Park Oncologist Led Study on Long-Term Benefits of Pembrolizumab for Patients with Metastatic Melanoma

A 10-year analysis led by Igor Puzanov, MD, MSci, FACP, Director of Early Phase Clinical Trials and Chief of Melanoma, provides new insights into whether BRAF V600/K mutation status or previous BRAF inhibitor therapy with or without an MEK inhibitor affects response to pembrolizumab in patients with advanced melanoma.

“Our findings confirmed the long-term, lasting benefits of pembrolizumab for patients with unresectable advanced melanoma and show that the effect is seen regardless of BRAF mutation status — and regardless of early treatment with BRAF-targeting therapy,” says Dr. Puzanov.

Roswell Park’s Dr. Pawel Kalinski to Lead \$14.5 Million NCI-Funded Immunotherapy Effort

A team led by Pawel Kalinski, MD, PhD, earned a five-year, \$14.54 million award from the National Cancer Institute (NCI) to expand a promising immunotherapy platform. The NCI grant, which involves partners from both UPMC and The Tisch Cancer Institute at Mount Sinai, will enable five new phase II or phase IIA clinical trials to assess the efficacy of this multipronged approach — two studies in patients with metastatic colorectal cancer, one in patients with checkpoint-resistant advanced melanoma and two in advanced ovarian cancer. Three of the five studies will be conducted at Roswell Park, with the two ovarian cancer studies to be led at UPMC’s Hillman Cancer Center, with participation from Roswell Park.

Roswell Park, Ellis Medicine Partner to Expand Access to Cancer Care in the Capital Region

Ellis Medicine and Roswell Park marked a major milestone in August with the announcement of an affiliation that will bring new medical oncology services to Ellis Hospital. Ellis is creating a medical oncology/chemotherapy/infusion center at the hospital — and through the affiliation will expand local access to the services of Roswell Park, the only NCI-designated comprehensive cancer center in upstate New York.

As the newest member of the Roswell Park Care Network, the collaboration will occupy a 6,000-square-foot cancer center at Ellis Hospital in Schenectady, with patients scheduled in summer 2021. The suite will contain a 12-chair infusion bay and six exam rooms.

Through this collaboration, Ellis Medicine and Roswell Park aim to enhance the quality of medical oncology care in the region and expand patient access to both specialists and clinical trials. Care will meet the guidelines established by the National Comprehensive Cancer Network, in which Roswell Park is a founding member, and local residents will have access to some of the latest treatment and research options. Presently, Capital Region families have to

travel several hours to seek the services of an NCI-designated comprehensive cancer center.

New Study Suggests Role for Hormone Therapy to Treat Even Small Breast Cancers

Many people diagnosed with breast cancers that are small but invasive could benefit from hormone treatment, a new study led by Anurag Singh, MD, Professor of Oncology and Director of Radiation Research, reported.

Previously, patients with some small but potentially dangerous breast tumors were not included in studies on the efficacy of hormone therapy. With nearly one in five women with breast cancer falling into this category, they were previously under-represented in research into the efficacy of hormone therapy, with either tamoxifen or with an aromatase inhibitor.

The team reports that overall survival was better in patients who had received hormone therapy than for those who did not, and the addition of hormone therapy was shown to generally be effective.

“Those patients who may benefit from hormone therapy should be given clear information about this possible course of treatment — and about its potential long-term toxicities,” says Dr. Singh, who is senior author on the publication. “The side effects of endocrine treatments can impact quality of life significantly, sometimes for several years, so they’re not the right option for everyone.”

Dr. Rodney Haring Joins National COVID-19 Native Expert Panel

Rodney Haring, PhD, MSW, Director of the Center for Indigenous Cancer Research, has been named to the COVID-19 Prevention Network (CoVPN) Native Expert Panel, formed by the National Institute of Allergy and Infectious Disease.

The Native Expert Panel aims to ensure that diversity and education are included in the review of clinical trials, examine how clinical trials are conducted from Nation to Nation and delve into research and ethics that surround pharmaceutical collaborations and tribal governments.

“Through our work at Roswell Park and the Center for Indigenous Cancer Research, we look at the way science is conducted to Indigenous communities and nations,” said Dr. Haring. “I hope this panel will view the COVID-19 trials through a similar lens. All too often, Indigenous populations are left out of trials, so inclusion is of utmost importance. We need to learn whether the science will work in diversified communities.”

Kelvin Lee, MD, Serves on NYS COVID-19 Vaccine Task Force

Roswell Park’s Dr. Kelvin Lee was named to Gov. Andrew Cuomo’s Clinical Advisory Task Force in September. The task force advises the governor and state health leaders on rollout of a statewide vaccination strategy. He was the only one of seven experts chosen for the task force from Western and Upstate New York.

Dr. Lee, a staff physician from the myeloma team, is an expert in vaccine development and

safety through his roles as Jacobs Family Chair in Immunology and Senior Vice President for Basic Science, and his leadership of number studies involving vaccines and immunotherapy.

Delaying Antiviral Treatment May Boost Immunity in Stem Cell Transplant Recipients

Patients who develop cytomegalovirus infections after allogeneic stem cell transplantation may be able to develop an immunity against the virus, strengthen their immune system and reduce reliance on strong antiviral medications, a team of cellular-therapy specialists from Roswell Park have found.

A team led by George Chen, MD, Theresa Hahn, PhD, and Philip McCarthy, MD, studied 315 patients who received hematopoietic stem cell transplants from an allogeneic donor, to determine how many suffered from CMV reactivation and developed anti-CMV immune responses following their transplant.

The research team studied the immune responses of patients to CMV reactivation in the first 365 days after transplant. They found that those who reactivated CMV and developed three or more CMV-specific T cell per microliter of blood were less likely to subsequently reactivate CMV.

Roswell Park Team Working to Reverse Lung Cancer Inequities Through Bilingual Outreach

With lung cancer causing the most cancer-related deaths in Western New York, experts from Roswell Park's Community Outreach and Engagement team earned funding for an intervention from the Prevent Cancer Foundation, the only U.S.-based nonprofit organization solely dedicated to cancer prevention and early detection.

The one-year, \$25,000 grant is one of only 10 awarded by Prevent Cancer nationwide to implement initiatives to prevent cancer in underserved populations. The grant will help the Roswell Park team to deepen its relationships with those at high risk for lung cancer. The funding also allows them to navigate eligible residents to lung-cancer screening and provide information to broad audiences about ways to lower risk for the disease.

Incidence and deaths from lung cancer are higher among Blacks in Western New York than any other racial group — 85.5 per 100,000 people and 58.7 among every 100,000, respectively. And area whites and Hispanics aren't far behind in these categories.

The grant will support the Roswell AIR (Awareness, Information and Resources) for Lung-Cancer Screening program. Led by Elizabeth Bouchard, PhD, MA, Jomary Colon, Senior Health Referral Specialist, and Nikia Clark, Health Education Specialist, the AIR team enlists the help of partners to reduce barriers to lung-cancer screening among underserved communities.

Niagara Falls Miracle Baby Beats Aggressive Leukemia After Successful CAR-T Cancer Immunotherapy

Chasity Mayfield, who was diagnosed with acute lymphocytic leukemia at only 5 weeks old, celebrated her 2nd birthday with no signs of cancer after successfully undergoing CAR T therapy

through the Roswell Park Oishei Children's Cancer and Blood Disorders Program. Few centers in the country are approved to offer CAR T, and Chasity is one of the youngest patients to receive this advanced cancer treatment.

This specific form of CAR T that Chasity received was Kymriah (tisagenlecleucel), a therapy approved by the FDA in 2017 for treatment some advanced leukemias in both children and adults. Roswell Park has been a certified treatment center for this therapy since 2018.

Chasity faced even greater odds as a Black infant with aggressive leukemia. A 2018 study in the journal *Cancer* reported that a Black child with ALL is 43 percent more likely to die than a white child with the same diagnosis.

In the spring of 2019, Chasity's blood stem cells were collected, re-engineered with the addition of Kymriah and infused back into her, under the guidance of: childhood cancer expert and leading physician of the Roswell Park Oishei Children's Cancer and Blood Disorders Program Kara Kelly, MD, pediatric oncology/cellular therapy specialist Meghan Higman, MD, PhD, pediatric critical care specialist Bree Kramer, DO, transfusion medicine expert Joanne Becker, MD, and the TCT Center at Roswell Park.

New CAR T-Cell Therapy Approved and Available at Roswell Park for Lymphoma Patients

Giving patients with relapsed or refractory mantle cell lymphoma (MCL) access to more treatment options, Roswell Park has been approved to administer the FDA-approved chimeric antigen receptor (CAR) T-cell therapy Tecartus.

Tecartus, is the first CAR T-cell therapy approved for MCL authorized by the FDA in July 2020. Roswell Park is one of 80 centers across the U.S. authorized to administer the treatment to patients.

"The ability to offer MCL patients a new and innovative form of immunotherapy is incredible," said Francisco Hernandez-Ilizaliturri, MD, Chief of Lymphoma. "Tackling this aggressive cancer with Tecartus gives these patients another option for improved quality of life."

New Roswell Park Strategy for Overcoming Resistance to Immunotherapy Unleashes Power of Dendritic Cells

Many of the most aggressive and hard-to-treat cancers are highly effective at blocking T cells from reaching and responding to tumors. It's a cancer defense mechanism that even groundbreaking immunotherapies have not yet broken through. Research led by a Roswell Park team details a promising new strategy for overcoming this treatment resistance by zeroing in on dendritic cells and enhancing their function as "accessory cells" supporting other immune cells.

Work led by Fumito Ito, MD, PhD, FASC, of Roswell Park's Center for Immunotherapy documents successful laboratory studies of a three-pronged approach for activating cross-presenting conventional type 1 dendritic cells and reversing poor T-cell infiltration, even "cold"

tumors that don't typically respond to immunotherapy.

"Our findings in multiple preclinical models of immunotherapy-resistant cancers, including melanoma and breast tumors, show that this novel combination increases the tumors and renders even tumors with poor T-cells penetration responsive to anti-Pd-L1 immunotherapy," says Dr. Ito. A phase I clinical study of this approach in patients with advanced breast cancer is planned at Roswell Park.

Roswell Park Team Uncovers Possible Strategy for Blocking Prostate Tumor Growth in Bone

People with advanced prostate cancer often develop bone metastases — lesions of prostate cancer growing on distant bones — that are very painful and difficult to treat. Given the significant differences between the microenvironments surrounding the bone and prostate, a team from Roswell Park set out to learn more about how prostate tumors survive and grow in the bone.

Led by Subhamoy Dasgupta, PhD, Assistant Professor of Oncology in the Department of Cell Stress Biology, the team determined that prostate tumors change their metabolism to produce more fats, which helps them survive within the bones. Data from this study suggest that a mitochondrial enzyme called aconitase plays a key role in the development and viability of prostate cancer cells. The Roswell Park research team discovered that prostate tumors are able to alter their metabolism and produce additional fats by stimulating their enzyme.

"In this study, we provide evidence that prostate tumor cells alter their mitochondrial metabolism to increase synthesis of fats, which serve as a sort of food source enabling the prostate cells to take root and survive in a new location," explains Dr. Dasgupta. "This is an early-stage discovery identifying potential pathways that could be targeted to block prostate tumor growth inside the bone. We've begun additional work to investigate the clinical benefits of our research findings and identify particular drugs or new agents that could block this pathway."

Roswell Park Reports Positive Outcomes from New Combination Treatment for Ovarian Cancer

A team from Roswell Park has reported that one-quarter of patients who received the combination of pembrolizumab, bevacizumab and a pill form cyclophosphamide experienced long-term disease control along with excellent quality of life — far outpacing the effectiveness of either existing approved therapies or new immunotherapies alone.

"Pembrolizumab works by activating immune cells against cancer, but checkpoint inhibitors haven't worked well in ovarian cancer because the T cells often can't get to the tumor," said Emese Zsiros, MD, PhD, FACOG, a staff physician and faculty member with the Department of Gynecologic Oncology and Center for Immunotherapy who proposed this treatment combination and led this study. "We combined bevacizumab, to normalize the tumor microenvironment and achieve better penetration of T cells into tumor tissue, and oral cyclophosphamide, which can deplete 'bad' regulatory T cells that actually help cancer cells to

avoid immune attack, with checkpoint blockade in order to activate the ‘good’ killer T cells to fulfill their function.”

The team assessed participants’ quality of life at several junctures. Patients on the study maintained high and stable functioning throughout the study. Some indicators — body image and emotional/social functioning — actually improving overall over the course of the trial.

“The clinical trial represents a significant conceptual advance in the use of combination therapy to enhance the efficacy of immunotherapy, demonstrating that we can generate long-term disease control in ovarian cancer without compromising quality of life,” said the paper’s senior author, Kunle Odunsi, MD, PhD, FRCOG, FACOG.

Care Strategies Championed by Roswell Park Radiation Oncologist Adopted in International Treatment Guides

Two care strategies championed by Anurag Singh, MD, Professor of Oncology and Director of Radiation Research, were adopted as recommendations in major healthcare guidelines. Dr. Singh led the first prospective clinical trial to demonstrate that some patients with lung cancer can be treated efficiently with a single, high-dose treatment of radiation therapy as they can with the standard course of three separate treatments.

This one-dose strategy reduces a patient’s overall exposure to radiation and can be less taxing for both patients and caregivers.

Dr. Singh also led the team that showed patients who experience mucositis following treatment for head/neck cancers can have their pain controlled effectively with gabapentin, a drug widely used to prevent seizures, just as effectively as they would with opioids or other potentially addictive narcotics.

Igor Puzanov, MD, MSCI, FACP, Takes Part in Study of New Therapy for Ocular Melanoma

Dr. Igor Puzanov helped design and lead a clinical trial demonstrating that tebentafusp, an investigational drug awarded Fast Track designation from the FDA, extended lives of patients with melanoma of the eye, a rare and hard to treat cancer.

“This is the first drug to show a survival benefit for patients with ocular melanoma, an area of high unmet need,” said Dr. Puzanov. “We celebrate these positive study findings with our patients and families and applaud the great contributions to this international effort from Roswell Park’s melanoma and clinical research teams.”

Roswell Park Sees Benefits in First Clinical Trial to Combine Beta-Blocker and Checkpoint Inhibitor

The same biochemical triggers that spur “fight or flight” response when we encounter threats may help tumor cells to thrive. A team of Roswell Park researchers is looking at ways to disrupt that dynamic so that cancer treatments can be more effective — their latest work suggests that a drug widely prescribed to control blood pressure may improve patients’ response to cancer

immunotherapy.

In a publication in *Clinical Cancer Research*, the team reports its results from the first prospective clinical trial to show that the beta-blocker propranolol is safe in combination with pembrolizumab, an immunotherapy also known as Keytruda that has become standard therapy for patients newly diagnosed with advanced or metastatic melanoma.

Shipra Gandhi, MD, Assistant Professor of Oncology and co-author of the study, says “We know that stress can have a significant negative effect on health, but the extent to which stress may impact the outcome of cancer therapy is not well understood at all. So, building on the compelling preclinical work of our colleague Dr. Elizabeth Repasky documenting the role of adrenergic stress in the immune response to cancer, we set out to better understand this relationship and to explore its implications for cancer treatment.”

The findings also suggest that stress reduction could be an important component to achieving optimal stimulation of a patient’s immune system and reducing tumor growth.

Roswell Park Leukemia Chief Shares Promising Findings on New Treatment Options

Eunice Wang, MD, Chief of Leukemia and Director of Infusion Services, is leading multiple research efforts focused on treatment approaches for acute myeloid leukemia. At the 62nd American Society of Hematology Annual Meeting and Exposition (ASH), she presented two ongoing studies incorporating new treatments.

KOMET-001 (NCT04067336) is an ongoing phase 1/2A open-label study evaluating KO-539, a once-daily oral drug, in adult AML patients at Roswell Park and select other sites in the U.S. and Europe. KO-539 is a novel experimental inhibitor of the menin-KMT2A complex, which is dysregulated in acute leukemias characterized by rearrangements in the MLL gene and mutations in the NPM1 gene.

The phase 1 dose-escalation study aims to assess safety and tolerability, characterize the pharmacokinetics, and determine a recommended phase II dose. Researchers will examine anti-leukemic activity, pharmacokinetics, safety and tolerability in patients with select genetic subtypes of AML during the phase 2A dose expansion.

Dr. Wang will also present early findings from the randomized, multicenter, open-label phase III LACEWING study, exploring the efficacy of gilteritinib, FLT3 inhibitor, combined with low-dose chemotherapy compared to low-dose chemotherapy alone.

The primary objective of this study was overall survival. Secondary endpoints included event-free survival, best response, remission rates and duration, transfusion conversation and maintenance rates, leukemia-free survival, patient-reported fatigue and safety/tolerability.

Sequencing Study Highlights Previously Unknown Myeloma Resistance Mechanisms

Maximillian Merz, MD, Assistant Professor of Oncology with the Myeloma team, conducted the first prospective clinical trial investigating spatial heterogeneity in patients with relapsed/refractory, or newly diagnosed multiple myeloma, presenting the team's findings at the 62nd ASH Annual Meeting and Exposition.

The trial, which included 18 patients, demonstrated migration of cancer cells to new locations, and reduced T-cell receptor diversity. Enrolled patients agreed to imaging-guided biopsy of an osteolytic or soft-tissue lesion as well as regular bone marrow sampling. Thirty-seven different locations were biopsied initially — follow-up samples were collected from five patients who were in remission following therapy.

The researchers, a team of collaborators from the departments of Immunology, Radiology, Medicine, Biostatistics and Flow Cytometry, the Blood and Marrow Transplant Program and Center for Personalized Medicine at Roswell Park, performed whole-exome sequencing and single-cell RNA sequencing on plasma cells.

“Our study is clinically significant because we were able, for the first time, to integrate a single-cell analysis in a prospective clinical trial in multiple myeloma. By doing so, we show that myeloma patients harbor different clones of plasma cells — clones responsible for the osteolytic lesions that characterize multiple myeloma, which can cause resistance to treatment,” says Dr. Merz.

Novel Therapy is Safe for Non-Hodgkin Lymphoma Patients, Roswell-Led Study Finds

Francisco J. Hernandez-Ilizaliturri, MD, presented findings from a multicenter investigation of a new therapy for patients with relapsed or refractory B-cell non-Hodgkin lymphoma, at the 62nd ASH Annual Meeting.

TRPH-222-100 was a phase 1 open-label, multicenter, dose-escalation study that sought to determine the safety, tolerability and pharmacokinetics of TRPH-222 monotherapy in patients with relapsed/refractory non-Hodgkin lymphoma.

“TRPH-222 is generated using a novel technology that produces a very specific and stable bond between the antibody and the anticancer chemotherapy. The antibody binds to the cancer cells and delivers the chemotherapy agent inside the lymphoma cells,” explained Dr. Hernandez-Ilizaliturri, Chief of Lymphoma, Professor of Medicine and Associate Professor of Immunology. “Because of the novel engineering technology used to make TRPH-222, there is very small amount of free drug in the patients, and therefore, we expected that it could be given safely and with fewer side effects than other drugs conjugates previously approved by the FDA to treat cancer.”

As of June 30, 2020, 22 patients were enrolled in the study. Ten patients experienced grade 1 or 2 ocular events, which resolved to grade 1 or less with a dose interruption and reductions as well as lubricant eye drops. As of November, eleven patients remained enrolled in the trial. Reasons for study discontinuation were progressive disease and investigator decision.

At the end of cycle 6, researchers reported five complete responses and one partial response. Four patients with complete responses at the end of cycle 9 are now off treatment, with ongoing follow-up for safety and durability of response.

Roswell Park Experts Use Gene Sequencing to Quantify Risk of Skin Cancer Long Before Damage is Visible

Research conducted by Wendy Huss, PhD, Lei Wei, PhD, Barbara Foster, PhD, and Gyorgy Paragh, MD, PhD, sheds light on the carcinogenic effect of exposure to ultraviolet radiation, laying the groundwork for improvements in skin cancer risk stratification and prevention. Writing in *Science Advances*, the team details a method to measure the abundance of cancer-related early changes in skin tissue long before the damage is visible to the eye. Their findings may provide a way to improve treatment and even prevent many skin cancers.

Involving a multidisciplinary team from Roswell Park's Dermatology, Biostatistics and Bioinformatics, Pharmacology and Therapeutics departments, this first-of-its-kind study used a precision-medicine approach, focused on ultra-deep DNA sequencing, to systematically compare clonal mutations between sun-exposed and non-sun-exposed skin areas.

"Our work not only confirms the existence of microscopic groups of cells in the normal skin with DNA alterations, but also allowed us to discover the systematic differences between the mutations caused by UV from the ones caused by aging or other environmental factors," reports the paper's co-first and co-corresponding author, Dr. Wei, who is an Associate Professor of Oncology from the Department of Biostatistics and Bioinformatics, and the Co-Director of Bioinformatics Core Resource at Roswell Park.

They also report that these UV-induced mutations tend to result in changes of genes that modify protein function and are associated with specific contexts of DNA sequence, and that the clones harboring the mutations are generally larger in sun-exposed skin areas than non-sun-exposed areas.

Another novel finding was the existence of "mutation-exempt" genomic regions in non-sun-exposed skin. These genomic areas, which are never mutated in detectable clones during skin aging, can lose their mutation-exempt status when exposed to sun.

Aggressive Breast Cancers in Black Patients Related to Immune Factors

A Roswell Park team led by Christine Ambrosone, PhD, and Song Yao, PhD, has revealed a distinct molecular signature in the tumor tissues of Black patients with breast cancer. The new work reports that an elevated number of "exhausted" nonfunctional T cells appear to be driving tumors in patients of African descent to be more aggressive and hard-to-treat.

"We observed in the tumor microenvironment of breast cancer in patients of African descent a distinct signature of exhausted versus total CD8+ T cells, and noted further that this immune cell profile is associated with poorer breast cancer survival," says Dr. Yao, Professor of Oncology

in the Department of Cancer Prevention and Control.

The findings suggest that Black patients could have a higher response rate to immune checkpoint inhibitors. The potential of this approach is also supported by the stronger B-cell response in this patient population, a trait recently shown to regulate responses to immunotherapy.

“We believe these findings may suggest an opportunity to enlist host immunity, part of the fundamental mechanism of human bodies to recognize and defend against the invasion of foreign agents, through immune checkpoint inhibitors in patients whose breast cancers fit this immune profile,” noted Dr. Ambrosone, Chair of Cancer Prevention & Control and Senior Vice President of Population Sciences.

Roswell Park, Bristol Myers Squibb Foundation Team Up to Fight Cancer in Native and Rural Communities

A \$3.3 million grant from the Bristol Myers Squibb Foundation will support Roswell Park’s work to address the cancer burden in rural areas and Native Nations across New York State, with emphasis on the Western New York region. The grant supports a service collaboration between Roswell Park, the Indian Health Service and geographically matched rural federal qualified health centers across NY.

It will allow Roswell Park to provide onsite and virtual patient navigation consisting of cancer prevention, screen, treatment, palliative care, survivorship, education and education on clinical trials, palliative care and survivorship. The primary focus will be on breast cancer and prostate cancer, and secondarily on co-occurring conditions that have high rates in these communities.

Six full-time patient navigators in the high-need communities as well as two virtual navigators will be created through the grant.

“This investment in the health and wellness of our community by the Bristol Myers Squibb Foundation will have a great impact not only now, but it’s going to make a difference for generations to come,” says Rodney Haring, PhD, MSW, Director of the Center for Indigenous Cancer Research.

More Than Half of Cancer Survivors Have Underlying Medical Conditions Associated with Severe COVID-19

A new study reports that more than half (56.4%) of cancer survivors in the United States reported having additional underlying medical conditions associated with severe COVID-19 illness. For this study, investigators Changchuan “Charles” Jiang, MD, PhD, from Roswell Park, Xuesong Hang, PhD, from the American Cancer Society and colleagues used data from 2016-2018 National Health Interview Survey, a national cross-sectional survey of the civilian, noninstitutionalized population, to examine the prevalence of underlying medical conditions associated with severe COVID-19 illness in adult cancer survivors.

Most cancer survivors reported having more than one of the conditions associated with severe COVID-19, and nearly one-quarter reported more than two conditions. These conditions were more prevalent in survivors of kidney, liver and uterine cancers, as well as Black survivors, those with low socioeconomic status, and public insurance.

“This study investigates the prevalence and factors associated with these underlying medical conditions among cancer survivors in the U.S. We felt it was important to compile and analyze the available data to inform the public and guide the policy makers on opportunities to prevent and control severe COVID-19–associated illness through strategies such as risk-stratified vaccine distribution,” said Dr. Jiang.

Roswell Park Awarded Nearly \$2 Million to Study Cause of Racial Disparities in Breast Cancer

A research team headed by Roswell Park epidemiologist Zhihong Gong, PhD, has been awarded a five-year, \$1.9 million grant from the National Cancer Institute for an investigation into the role that certain genetic molecules play in the disparities seen between Black people and white people with breast cancer.

Women of African ancestry are more likely than those of European descent to develop aggressive and hard-to-treat breast cancer tumors, such as high-grade, estrogen-receptor-negative (ER-negative) and triple-negative types, and have a poorer prognosis.

Dr. Gong’s study will focus on a type of genetic molecule known as long noncoding RNAs (lncRNAs) — a newly appreciated class of gene regulators that play a role in cancer genesis and tumor progression.

“We understand that abnormal expression of certain long noncoding RNAs is associated with breast cancer metastasis and cancer cell survival,” explains Dr. Gong, Associate Professor of Oncology in Roswell Park’s Department of Cancer Prevention Control. “But studies to date have focused exclusively on white women, and few have used next-generation sequencing technology to provide unbiased and comprehensive profiling.”

Dr. Gong and colleagues will look closely at large existing databases of tissue samples and information about tumor characteristics, clinical outcomes, treatments received and lifestyle factors. Using next-generation sequencing technology, the team aims to identify long noncoding RNAs that are associated with aggressive breast cancer types and poor prognosis, and to discover the underlying mechanisms of how these molecules contribute to cancer progression.

Roswell Park is First Site in Region Named a Resource for Patients with Rare Genetic Disease

Those diagnosed with von Hippel-Lindau (VHL) disease have a resource complete and coordinated care in Roswell Park, which was recently named a VHL Clinical Care Center by the VHL Alliance.

“We are honored to partner with Roswell Park in providing the first VHL Clinical Care Center for patients and families in Western New York. Roswell Park’s reputation for excellence and

dedication to providing holistic, coordinated and knowledgeable VHL care make them an invaluable resource,” says Chandra Clark, MD, VHLA Executive Director.

“VHL is complex, and our staff at Roswell Park are well equipped to provide the best care possible to these patients,” said Eric Kaufmann, MD, a urologic oncologist at Roswell Park. “We are proud to be able to provide these resources — from our clinical genetics service to kidney cancer experts – for anyone who finds themselves diagnosed with the disease.”

Mary Reid, PhD, Shares Expertise in President’s Cancer Panel Series

Dr. Mary Red, Chief of Cancer Screening, Survivorship and Mentorship, was invited to participate in a virtual meeting in February as part of the President’s Cancer Panel Series. The session, titled “Improving Resilience and Equity in Cancer Screening: Innovation to Increase Screening,” focused on identifying opportunities to accelerate and improve cancer screening through innovation.

Vaccine Effort Hits 10,000 Mark as of February

As of mid-February 2021, Roswell Park reached an important benchmark of successfully distributing 10,000 vaccines to employees, patients and the community. That same week, Roswell Park joined over 130 groups to sign a letter urging the Biden administration and state health departments to prioritize patients with cancer and survivors of cancer in COVID-10 vaccination plans.

Rally Foundation for Childhood Cancer Research Supports Work Aimed at Preventing Debilitating Bone Side Effects

A multidisciplinary research team led by Song Yao, PhD, Professor of Oncology in the Department of Cancer Prevention and Control at Roswell Park, and Kara Kelly, MD, Chair of Roswell Park Oishei Children’s Cancer and Blood Disorders Program, has received a critical grant award from the Rally Foundation for Childhood Cancer Research enabling a deeper look into which pediatric patients are most likely to suffer bone pain as a result of their leukemia treatment.

Treatment of Acute lymphoblastic leukemia (ALL) is largely successful in this group, with more than 90% of patients cured with a standard chemotherapy regimen that involved multiple chemotherapeutic drugs. While the cure rate is high, the treatment is known to produce some severe side effects, namely bone toxicities, including painful fractures and osteonecrosis, a condition in which the bone tissue dies.

Previous work by this Roswell team, which includes Qianqian Zhu, PhD, Associate Professor of Oncology in Roswell Park’s Department of Biostatistics & Bioinformatics, found that Hispanic children were less likely to have bone toxicities than non-Hispanic children.

“Hispanic individuals often carry genetic inheritance from multiple ancestral backgrounds, including European, African and Native American,” explained Dr. Yao. “We found that the

protection conferred by Hispanic ethnicity was driven by African ancestry, and that higher percentage of African ancestry was associated with lower risk of bone toxicities.”

The \$50,000 Rally Foundation grant will help to fund a broader study to confirm their previous findings and make new discoveries with a larger sample size. In addition, the team will measure blood levels of vitamin D and analyze whether vitamin D, genetic variants and ancestry may work together to determine a patient’s risk for developing bone toxicities.

Expanded Bill and Jane Greene Transplant and Cellular Therapy Center Opens at Roswell Park

To meet the needs of the growing number of patients who qualify for advanced stem cell and cellular therapies, Roswell Park has expanded its outpatient cellular therapy center. The Bill and Jane Greene Transplant and Cellular Therapy Center is now located on the 6th floor of the main hospital.

The outpatient clinic features 12 larger rooms to support outpatient services and procedures, increased infusion space and enhanced privacy in both shared and common areas. “Expanding our center means we can now provide a new level of care and comfort to these individuals,” said Shirley Johnson, MBA, MS, RN, NEA-BC, Chief of Clinical Operations Office.

Roswell Park is the only facility in the Buffalo area approved to provide these adoptive cellular therapies — a groundbreaking advance in cancer treatment that also requires intensive care and monitoring. Roswell Park is the first and only site in Western New York to offer its patients not only FDA-approved CAR T therapies Kymriah, Yescarta and Tecartus, but also many investigational cellular therapies as well.

“Thanks to the generous support from Bill and Jane Greene, we have a space that will support our work to develop new and innovative ways to treat our own patients that will also benefit patients around the world,” said Philip McCarthy, MD, Director of the Greene TCT Center.

Roswell Park’s cellular therapies program has been recognized for excellence by many outside organizations, including Optum Health, the Foundation for Accreditation of Cellular Therapy and BlueCross BlueShield, through its Blue Distinction Center for Transplants.

Study Finds Cancer Patients Who Are Worried About Finances Show Worse Outcomes

New research from Roswell Park provides the first evidence that a cancer patient’s level of financial worry as they begin treatment procedures predicts how likely it is that their treatment will be successful.

“Does financial worry impact survival? The answer is, resoundingly, yes,” says study senior author Anurag Singh, MD, Professor of Oncology and Director of Radiation Research. “The association we found was very strong, and very concerning. If you are worried about your finances, your risk of dying is roughly double.”

The researchers, who include Austin Iovoli, MD, a resident physician at Roswell Park, outlined their findings in a study in the journal of Oral Oncology. They surveyed 284 patients treated for cancers of the head and neck about their quality of life both before and after undergoing treatment, then retrospectively reviewed their survey responses and clinical outcomes.

The same 14.4% of patients who reported the most significant financial worry were those most likely to experience worse overall survival — the researchers performed both multivariable and matched-pair analyses to adjust for potential confounding factors, but still found that patients with high financial toxicity were twice as likely to experience a poor outcome.

“Doctors should consider how financial toxicity may be impacting their patients and do everything we can do improve our patients’ quality of life, and we want to encourage patients to take advantage of financial counseling and every other resource that can lessen their burden,” added Dr. Singh.

COMMUNITY SUPPORT AND ADVOCACY

Governor Visits Roswell Park, Calling Center a “Jewel” of the State

Governor Andrew Cuomo visited Roswell Park in April, holding his press conference from our campus and calling the center a “jewel” of the state. He spoke with our President and CEO Candace S. Johnson, PhD, about the needs of hospitals in the area and the current issues involved in COVID-19.

Introducing Orange DreamCycle — Ride for Roswell’s 25th Anniversary Ice Cream

Our partner Tops Friendly Markets helped us celebrate the 25th Anniversary of the Ride for Roswell with a special flavor of ice cream. A portion of all sales go back to the Ride.

“This is a very special year for the Ride for Roswell, so it’s just so wonderful that Tops — which is such a great partner to us in so many ways — designed this ice cream to honor the Ride and its legacy while also supporting our mission,” said Candace S. Johnson, PhD, President and CEO.

Virtual Screening Featured Drs. Hershberger, Gelman and Koya

Richard Hershberger, PhD, MBA, Irwin Gelman, PhD, and Richard Koya, MD, PhD, were featured in a Virtual Panel Discussion and Educational Event on Wednesday, May 27.

In partnership with Roswell Park and Western New York STEM Hub, Buffalo Toronto Public Media hosted the virtual screening event and panel discussion around the key topics addressed in the Ken Burns and Barak Goodman documentary “The Gene: An Intimate History.” This four-hour documentary from Burns and Goodman was adapted from the award-winning book of the same name by Pulitzer Prize-winning author Dr. Siddhartha Mukherjee.

Following the screening, a moderated panel discussion featuring Roswell Park experts highlighted Western New York’s signature contributions to the world’s understanding of human genetics.

Roswell Park Offers Support for Affordable Housing Project

During the month of August, Roswell Park was pleased to support the ambitious vision of Pastor Dwayne Jones of Mt. Aaron Baptist Church. Candace Johnson, PhD, President and CEO, joined state and local leaders at the groundbreaking of Mt. Aaron Village — a \$22 million affordable housing project on Buffalo’s East Side.

Pastor Jones has had extensive involvement throughout Roswell Park, motivating the institution with his thoughtful reflections at various events, including our annual tributes to Dr. Martin Luther King Jr. Roswell Park was proud to help the Mt. Aaron community with job fairs and career readiness, technology resources and upgrades to improve the accessibility of the church’s community center.

Summer of the Ride and 25th Anniversary of Ride for Roswell

The Summer of the Ride, which took place throughout the month of August, raised over \$3.4 million for research and patient-care programs at Roswell Park. The effort was an amazing collaboration that included 321 Roswell Park employees and 418 participants, who raised \$270,355.

This included more than \$140,000 raised through a Double Donation initiative. The Ride for Roswell community raised more than \$70,000 for Roswell Park, with that number doubled by a generous Roswell Park staff donor and Scott Bieler, president of West Herr Automotive Group and a member of the Roswell Park Alliance Foundation board.

Backpacks Bring School Supplies to Needy Families in our Community

Roswell Park was pleased to present 100 backpacks with school supplies to 61 families in our community in the month of August. The donation was part of a larger collection of water, food, toys and sports equipment for needy families that have been “adopted” by the Buffalo B, C, D and E District Police precincts. In total, Roswell Park donated 350 backpacks to be distributed by the four districts.

David Scott, our Director of Diversity and Inclusion, and Carl Thomas, Chief, Organizational and Community Liaison, made the presentation to D District families on our behalf.

Spiritual Care Offers Bereavement Support Groups

Our Spiritual Care team began connecting people who have lost a spouse, partner, parents or other loved ones with a virtual monthly support group called Healing a Grieving Heart. Virtual sessions began September 8 and continue to run once a month.

The purpose is to offer understanding, suggestions for coping, support, friendship and, most of all hope, during the challenges the COVID-19 pandemic brought upon us.

Code Blue Kitchen Gets Facelift from Roswell Park

The new Roswell Park Community Kitchen was unveiled in September at the Holy Cross Community Center in Buffalo. Roswell Park helped our friends at the West Side center by

rehabbing its kitchen space with everything from fresh paint to new appliances and cabinetry.

David Scott, Director of Office of Diversity and Inclusion, said, “An integral part of what Roswell Park does is look for ways to keep our community healthy. That begins with something as simple as a warm meal on a cold day. It’s why we wanted to help and give this kitchen the renovation it deserved.”

A New Tool to Help Curb Burnout and Improve Resilience

Working in healthcare can present extremely demanding situations for doctors, nurses and the rest of the care team. Roswell Park recognizes the stressful situations professionals working in hospitals and clinics face every day and created a space where our employees can go to for resources to help them manage their mental health.

The concept of resilience is related to wellbeing, and helps us to develop protection mechanisms against feeling overwhelmed, and balance ourselves through stressful situations. The Employee Resilience Program will continue to provide resources and educational stories, podcasts and videos to guide employees in building their personal resilience.

Roswell Park Brings Cancer Survivors Together for Virtual Workshop

This year's Chapter 2 cancer survivor and caregiver workshop was held online, offering a variety of workshops and discussions about living life to the fullest after cancer. Chapter 2 took place virtually on Friday and Saturday, September 11 and 12.

The event included an interactive cooking class with Chef Jonathan Diati from Osteria 166. Clinical Dietitian Sara Jank was on hand to provide nutritional facts and tips throughout the demonstration. Other sessions and discussions throughout the event included spirituality, mindfulness, laughter yoga, mental health tips and advice and discussions on sexuality and intimacy.

Summer Splash Auction

The Courage of Carly Fund held a silent auction throughout the first week of August, to raise critical funds for Roswell Park’s young patients. Inspired by the courage and strength of Carly Collard Cottone and every child fighting their disease who comes through our doors, the Courage of Carly Fund offers hope for a cure by funding pediatric cancer and blood disorder research here at Roswell Park and supplying an extra dose of happiness to children, teens and their families as they move through their treatment journeys.

Roswell Park Center for Indigenous Cancer Research Hosts Virtual Fireside Chat

In April, Rodney Haring, PhD, MSW, Director of the CIRC, held a virtual fireside zoom chat alongside other cancer experts and practitioners from Indigenous groups across the nation and worldwide. The goal was to communicate, strategize and work together on the unique concerns that surround tribes and Indigenous nations as they cope with COVID-19.

“When a health crisis like what we are seeing with the Coronavirus starts affecting people on a

national and international level, a lot of the support resources from prevention to treatment, and survivorship are not Indigenized,” said Dr. Haring. “There hasn’t been an international forum bringing together these Indigenous experts to share knowledge around cancer and COVID-19, and we hope to provide insight to anyone who comes to join us for this discussion.”

First-Ever “Mammothon” Promotes Breast Health

In recognition of Breast Cancer Awareness Month, Roswell Park held its first Mammothon to encourage breast cancer early detection.

The October 2020 event, held in conjunction with WIVB-TV Channel 4, helped more than 200 individuals to schedule recommended breast cancer screening appointments.

Education, Connection Drive Latest Roswell Park Center for Indigenous Cancer Research Efforts

Roswell Park’s Center for Indigenous Cancer Research (CICR) helped organize the University of Toronto’s Temerty Faculty of Medicine-led Indigenous Health Conference (IHC). The event is the largest Indigenous health conference in Canada.

CICR Director Rodney Haring, PhD, MSW, says the fourth biennial IHC conference enlisted participation from a wide range of Indigenous peoples, with representatives from the First Nations, Inuit, Métis, and Native American Wisdom Keepers communities. Dr. Haring provided insights on “Indigenous Health, Creative Peace, Courage and Cultural Resilience” as part of a plenary address during the meeting, while CICR team members Whitney Ann Henry and William Maybee led presentations on Indigenous cancer health education, quality improvement mechanisms, along with concepts of Indigenous writing retreats.

“We look to IHC as a blending of Indigenous Knowledge, Western-based science and how we can apply these elements to benefit the health of future generations,” explains Dr. Haring.

Hope Fund Aids Employees in Crisis

In response to the many personal challenges, employees at Roswell Park face, the Roswell Park Hope Fund has been developed to provide emergency assistance to employees who have experienced hardship due to events beyond their control. Successful applicants can use the one-time gift to pay for essential living expenses, such as housing, utilities, food, clothing and other basic necessities, as they work to get back on their feet.

Second Annual Day of Giving

In just 24 hours, Roswell Park staff, patients, families, friends and community collectively raised \$107,680.99 for cancer research during the second annual Day of Giving— collectively, 827 people made a donation, and 25 individuals held fundraisers. The Lung Cancer team came out as the top fundraising team, and Gastrointestinal Cancers team collected the greatest number of gifts.

Pharmacy Team Works to Provide Quality Medications for Patients During COVID-19

From compounding specialized drugs to filling and delivery orders, Roswell Park's Pharmacy team has developed a reputation for specialized oncology treatments, including limited-distribution drugs.

During COVID-19, our pharmacy procurement specialists played an important role keeping our shelves stocked, in spite of international shortages in many areas. The team created contingency plans in the event that a medication would become unavailable and set up a network of alternative distributors to diversify our supply base.

"The level of resources and number of staff who are highly trained in the field of oncology medicine is unmatched in the area. We are very fortunate to have the team that we have, and they coordinate with clinical staff, Patient Access and many other areas of the organization to serve our patients," said Steven Gerfin, PharmD, MS, MBA, DPLA, Executive Director of Pharmacy Operations.

Roswell Park Champions National Masking Campaign

Roswell Park joined 100 hospitals nationwide to participate in a two-week masking campaign, reminding people of the importance of wearing a mask to fight COVID-19. A public service message ran in The New York Times, USA Today, The Wall Street Journal, The Washington Post, The Los Angeles Times and in regional media outlets.

"Nothing is more important right now, across the whole country," said Candace S. Johnson, PhD, President and CEO. "We need to be able to count on one another to take this small but powerful step to benefit ourselves, our families and our communities. The decisions we make today have the power to save lives — or endanger them."

The message read: "As the top nationally-ranked hospitals, we know it's tough that we all need to do our part and keep wearing masks. But here's what we also know: The science has not changed. Masks slow the spread of COVID-19. So, please join us as we all embrace this simple ask: Wear. Care. Share with #MaskUp. Together, wearing is caring. And together, we are saving lives."

Roswell Park Celebrates 20th Anniversary of Herd About Buffalo

Roswell Park and the Roswell Park Alliance Foundation celebrated the 20th anniversary of the Herd About Buffalo public art program with a commemorative auction. More than 30 Western New York artists partnered with Roswell Park to each create a custom, one-of-a-kind buffalo, inspired by everything from sports to public art to Buffalo's rich history.

"It's amazing to see the WNY art community come together in a unique way to support the thousands of cancer patients who turn to Roswell Park each year for treatment," said Sally Russell and Colleen Burns, co-chairs of Herd About Buffalo.

Herd About Buffalo was a unique collaboration between Roswell Park and the Burchfield-Penney Art Center in 2000. The public art exhibition showcases the talent and creativity of local

artists and served to poster pride in all Western New Yorkers. After a brief showcase, the buffaloes were auctioned to benefit cancer research at Roswell Park.

Making Thanksgiving Brighter for the Community

In the days leading up to Thanksgiving, Roswell Park organized a collection of turkeys and nonperishable foods that filled a total of 40 large boxes. These were then distributed by FeedMore WNY to families throughout Buffalo. Earlier in the year, Roswell Park donated \$11,000 to FeedMore WNY.

In addition, The Office of Diversity & Inclusion, in partnership with MIX 1080 WUFO and Power 96.5, collected and distributed 110 turkeys for families of students in PS #53 Community School.

Over 2,500 Toys Collected for Our Community

Together, Roswell Park employees, patients and partners collected more than 2,500 toys at our first Roswell Park Holiday Toy Drive. With help from the Buffalo Fire Department, which helped us distribute the toys, and Fisher-Price — which alone donated over 200 boxes of toys — we delivered toys to agencies and centers all over Western New York, reaching into both urban and rural communities where the need was great this year.

Tree of Hope United Us Even from a Distance

Despite the fact that we couldn't come together as a community in person, our annual Tree of Hope event still lit up hearts all over our community through a televised event on WGRZ-TV Channel 2 as our community watched pediatric cancer patient Silas flipping the switch to light the Tree of Hope.

The Worthington family, of North Tonawanda donated this year's tree in honor of their 5-year-old grandson Waylon, who is in treatment for leukemia at the Roswell Park Oishei Children's Cancer and Blood Disorders Program.

Roswell Park Holds COVID-19 Vaccine Clinics for EMS Workers

The New York State Department of Health collaborated with Roswell Park and other sites to hold clinics to support the Phase 1A vaccination program. Vaccinations began December 31, 2020.

"EMS workers have been at the forefront of this pandemic since the very beginning, and we are honored to support this effort in our community," said Shirley Johnson, MBA, MS, RN, NEA-BC, Chief of Clinical Operations Officer. "This critically important service will help in our efforts to slow the pandemic."

Congressman Brian Higgins Proposes Bill for Lung Cancer Access

Rep. Brian Higgins (NY-26) enlisted input from Roswell Park experts as he introduced legislation aimed at increasing access to lung cancer screenings by supporting the establishment and maintenance of new lung cancer screening registries. Outlined in a press conference with Drs.

Candace Johnson and Mary Reid from Roswell Park, the Lung Cancer Screening Registry and Quality Improvement Act aims to alleviate the bottleneck in screening access by providing \$2 million in grants annually for five years.

Roswell Park Introduces IceCycle, Buffalo's Newest Fundraising Event

IceCycle, a new cycling fundraising event presented by West Herr Automotive Group, allowed participants to join in person at Buffalo Riverworks or ride at home on their own bikes following a live stream.

"Everyone in WNY has been touched by cancer in some way, and the work being done at Roswell Park is critical. West Herr is proud to continue our part in this important mission through IceCycle," said Bill Loecher, Vice President of West Herr Automotive Group.

"It's always exciting when Buffalonians have an opportunity to make a collective impact on an important cause. And IceCycle is the perfect opportunity to bring the cycling community together in a unique way for one mission. It's awesome to see all the studios coming together to help end cancer," said Missy Fogarty, indoor cycling director at Jada Blitz Fitness.

The funds raised through IceCycle will support Roswell Park researchers in their investigation of new treatment options; facilitate clinical trials for both common and rare types of cancers; support the costs of important medical testing not covered by insurance; and make possible quality of life programs that assist with non-medical needs and help patients remember that cancer doesn't define them.

Roswell Park Launches "Let's Start to Heal" Campaign

Roswell Park launched an informational campaign celebrating the spirit of resilience that has helped our community to endure the many challenges driven by the COVID-19 pandemic.

Our "Let's Start to Heal" initiative included webinars with expert and educational resources on COVID-19 and COVID-19 vaccination, compiled at www.roswellpark.org/starttoheal.

As Roswell Park notes in a spot created to air locally during the Super Bowl addressed to the Western New York Community, "Your outpouring of support over the past year has done so much good...more than you'll ever know," the piece affirms. "So we give back to you, like you so generously gave to us. You've ignited the circle of giving."

Roswell Park invited the public to share their stories of healing on social media using hashtag #LetsStartToHeal.

New Publication Highlights Breadth of Roswell Park's Community Outreach

A new publication titled "Because We Care: Roswell Park in Our Community, 2019-2020" documents the scope of Roswell Park's educational and community outreach over the past two years — and underscores the reasons behind the cancer center's extensive engagement.

The book outlines efforts including paid internships for city high school students, educational programs reaching 13,000 people, education resources created by and for Black and African American, Hispanic and Latinx, Indigenous and LGBTQIA+ individuals, screening of more than 1,300 at cancer early-detection events, job fairs and the more than 8,000 bottles of hand sanitizer that Roswell Park distributed across 40 organizations.

“As a comprehensive cancer center serving the public for more than 120 years, Roswell Park is committed to doing everything we can to make the community around us stronger and healthier,” said Candace S. Johnson, PhD, President, CEO and M&T Bank Presidential Chair in Leadership.

“I am so proud to be a part of the Roswell family,” adds Rev. Dwayne Jones, Pastor of Mt. Aaron Missionary Baptist Church. “From laptops and technology upgrades for our students and making our community center ADA-compliant and accessible for everyone, to getting COVID-19 vaccines to our high-risk community members, Dr. Johnson and her team have been a monumental ally for my church community and the whole East Side.”

Roswell Park, Buffalo Sabres and New Era Cap Team Up for Cap of Hope

Roswell Park has teamed up with New Era Cap and the Buffalo Sabres to create a limited-edition Cap of Hope — designed through the creativity of Roswell Park patients and doctors, the cap is a symbol of hope for patients, caregivers and those in the WNY community affected by cancer.

“For the past four years, we’ve had the opportunity to partner with Roswell Park and the Buffalo Sabres to bring doctors and patients together to design a cap that serves as a symbol of solidarity for patients, caregivers and survivors as they stand together to battle cancer,” said Josh Feine, Vice President of Sports Marketing, Corporate Partnerships and Business Development for New Era Cap. “This year’s cap is extra special, as we support and honor all of the amazing staff members and caregivers at Roswell Park, who have tirelessly fought over the past twelve months and have dedicated themselves to the care of patients and families in our Western New York community.”

“This partnership reflects a community with a longstanding dedication to Roswell Park and its fight to free our world from the fear, pain and loss due to cancer,” said Jennifer Hickok, Director of Corporate and Sports Partnerships at the Roswell Park Alliance Foundation. “When patients and caregivers wear this cap, they will know that they are not in this fight alone.”