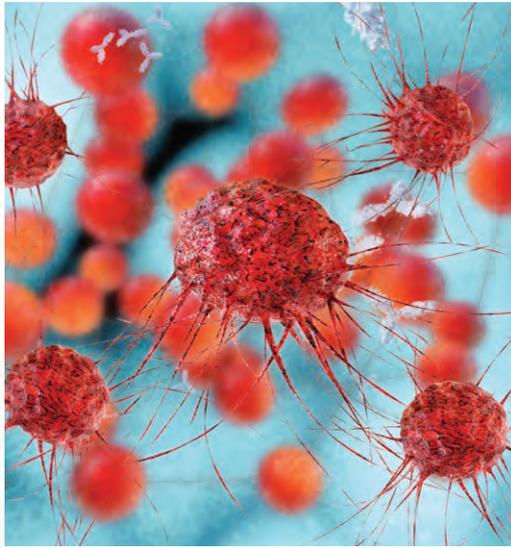


THE OHIO STATE UNIVERSITY COMPREHENSIVE CANCER CENTER –
ARTHUR G. JAMES CANCER HOSPITAL AND RICHARD J. SOLOVE RESEARCH INSTITUTE



TOWARD A CANCER-FREE WORLD



2016 ACCOMPLISHMENTS REPORT

The James



THE OHIO STATE UNIVERSITY
COMPREHENSIVE CANCER CENTER



Greetings and welcome to the 2016 Accomplishments Report of The Ohio State University Comprehensive Cancer Center – Arthur G. James Cancer Hospital and Richard J. Solove Research Institute (OSUCCC – James).

I believe 2016 was another remarkable year for our cancer program as we continued to make an impact in changing the landscape of cancer research and treatment while pursuing our shared vision of creating a cancer-free world, one person and one discovery at a time.

Our more than 340 researchers, who represent 12 of the 15 colleges at Ohio State, have collectively increased our National Cancer Institute grant funding over the past decade by 40 percent—to now more than \$54 million—and they continue to publish their discoveries in prestigious scientific journals.

2016 was the second full year of operation for our new James Cancer Hospital and Solove Research Institute, which opened in December 2014 as the nation's third-largest cancer hospital, with 21 floors, 1.1 million square feet and 308 beds. We have now reached 98 percent bed occupancy in this transformational facility, which integrates cancer research and care more closely than ever. In 2016 we admitted 13,780 inpatients and recorded more than 391,000 outpatient visits, increases of nearly 9 percent over the previous year.

This Accomplishments Report highlights our many achievements and activities of 2016, including:

- Peer-reviewed research studies that have furthered global knowledge of cancer in its many forms;
- Large grants that our medical scientists received for cancer research;
- Our success in recruiting some of the most brilliant minds in cancer research and care;
- Prominent awards earned by our medical scientists and programs;
- Far-reaching initiatives and projects;
- The continuing success of Pelotonia, an annual grassroots bicycle tour that in 2016 raised a record \$24.1 million and boosted the event's eight-year overall total to more than \$130 million for cancer research at Ohio State.

As the OSUCCC – James has an ever-greater impact around the world, we have become a destination for cancer care, receiving patients from all 50 states and 36 countries. This report reflects our continued success in helping the many patients and families who turn to us for help and hope.

Michael A. Caligiuri, MD

Director, The Ohio State University Comprehensive Cancer Center
 CEO, James Cancer Hospital and Solove Research Institute
 John L. Marakas Nationwide Insurance
 Enterprise Foundation Chair in Cancer Research
 President-Elect, American Association for Cancer Research

Pelotonia-Funded Study Suggests Many Early-Onset Colon Cancers Are Caused by Genetic Mutations Passed Through Families



TOP LEFT: Heather Hampel (left), a licensed genetic counselor at The Ohio State University Comprehensive Cancer Center - Arthur G. James Cancer Hospital and Richard J. Solove Research Institute, conducts a genetic counseling session to determine if a patient is likely to have Lynch syndrome.

BOTTOM LEFT: Nancy Rosen and her son, Michael Greene, have Lynch syndrome, an inherited genetic mutation that puts them at a very high lifetime risk for cancer, most commonly colorectal cancer.

RIGHT: A new study published by The Ohio State University Comprehensive Cancer Center - Arthur G. James Cancer Hospital and Richard J. Solove Research Institute found that one in every six colorectal cancer patients diagnosed under age 50 had an inherited genetic mutation that made them more susceptible to developing cancer.

One in every six colorectal cancer patients (16 percent) diagnosed under age 50 has at least one inherited genetic mutation that increases cancer risk, and many of these mutations could go undetected with the current screening approach, according to initial data from a statewide colorectal cancer screening study conducted at the OSUCCC – James.

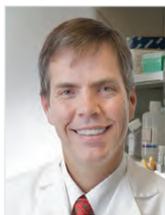
In this new analysis, published in the Dec. 15, 2016, issue of the journal *JAMA Oncology*, the OSUCCC – James team offered the first detailed report of the prevalence and spectrum of specific mutations in 25 genes associated with inherited cancer syndromes in an unselected series of colorectal cancer patients.

The study includes data from 450 patients with early-onset colorectal cancer who were recruited from a network of Ohio hospitals that was established via the Ohio Colorectal Cancer Prevention Initiative (OCCPI), a statewide study aimed at screening all newly diagnosed colorectal cancer patients in Ohio for Lynch syndrome and other hereditary cancer syndromes. Led by **Heather Hampel, MS, LGC**, of the OSUCCC – James, the OCCPI network includes 50 hospitals.

The OCCPI was supported by Pelotonia, an annual grassroots bicycle tour that raises millions of dollars for cancer research at Ohio State (*see story, back inside cover*).

If a colorectal cancer patient is found to have an inherited cancer syndrome, his or her relatives also can be screened for it and can take heightened surveillance or preventive measures if they too are found to have the syndrome.

“The prevalence of hereditary cancer syndromes – including Lynch syndrome – among early-onset colorectal cancer patients was quite high, which presents a tremendous opportunity for us to save lives through early detection based on genomic risk factors,” says Hampel, principal investigator for the study and senior author of the *JAMA Oncology* paper. “It is critical that people find out at a young age if they are genetically predisposed to cancer so they can take steps to prevent cancer from occurring at all.” [Read more](#)



John C. Byrd, MD



Alice Mims, MD



William Blum, MD

Ohio State Co-Leads National Precision Medicine Trial to Treat AML

The Ohio State University Comprehensive Cancer Center – James Cancer Hospital and Solove Research Institute (OSUCCC – James) will play a leadership role in a groundbreaking, collaborative clinical trial for acute myeloid leukemia (AML) sponsored by the Leukemia & Lymphoma Society. Known as “Beat AML,” the trial represents unprecedented collaboration among top leukemia researchers and medical centers, non-profit organizations, pharmaceutical companies and a leading genomics information company to advance treatment for AML, a deadly disease that affects 20,000 Americans annually. [John C. Byrd, MD](#), a Distinguished University Professor at Ohio State who also holds the D. Warren Brown Designated Chair in Leukemia Research and directs the Division of Hematology, is co-principal investigator and chief medical officer for the “Beat AML” trial. The local arm of the trial will be led by [Alice Mims, MD](#), and [William Blum, MD](#), both of the Division of Hematology at Ohio State. [Read more and watch a video](#)



Peter Shields, MD



David Carbone, MD, PhD

Statewide Lung Cancer Clinical Research Initiative to be Launched

The OSUCCC – James is set to launch a statewide clinical research initiative that takes aim at lung cancer, the No. 1 cancer killer among men and women in the United States. Led by [Peter Shields, MD](#), [David Carbone, MD, PhD](#), and [Mary Ellen Wewers, RN, PhD, MPH](#), the initiative is called Beating Lung Cancer - in Ohio (BLC-IO) and will be supported by a \$3 million grant from Pelotonia, an annual grassroots bicycle tour that raises money for cancer research at Ohio State. The initiative will draw upon an existing network of more than 50 partner hospitals from communities across Ohio that was established as part of the [Ohio Colorectal Cancer Prevention Initiative](#) (OCCPI), a previous statewide research initiative funded by Pelotonia. Recruitment for the new lung cancer initiative will take place over three years starting in March 2017. [Read more](#)



Mary Ellen Wewers, RN, PhD, MPH



Kamalakkannan Palanichamy, PhD

Brain Cancer: 2 Amino Acids May Hold Key to Better Outcomes

A study led by researchers at the OSUCCC – James indicates that the altered metabolism of two essential amino acids helps drive the development of glioblastoma (GBM), the most common and lethal form of brain cancer. The [study](#), published in the journal *Clinical Cancer Research*, suggests new ways to treat the malignancy, slow its progression and reveal its extent more precisely. Specifically, the study shows that in GBM the essential amino acids methionine and tryptophan are abnormally metabolized due to the loss of key enzymes in GBM cells. The altered methionine metabolism helps activate oncogenes, while the changes in tryptophan metabolism shield GBM cells from detection by immune cells. Together, the changes promote tumor progress and cancer-cell survival. First author [Kamalakkannan Palanichamy, PhD](#), says the findings suggest that restricting dietary intake of methionine and tryptophan might help slow tumor progression and improve treatment outcomes. [Read more](#)

Biologic Age – Versus Chronologic Age – Should Drive Cancer Treatment Choices

As the baby boomer generation ages, the number of older adults with blood-based cancers is growing. For many of those patients, the best chance for a “cure” involves intensive treatments traditionally thought to be too harsh for people over age 65. Experts at the OSUCCC – James, however, say it is a patient’s overall “fitness” and biologic age—how the body has aged over time—that should guide treatment choices, not the age in calendar years. Research published by [Ashley Rosko, MD](#), [Christin Burd, PhD](#), and others is debunking the idea that age alone should be a limiting factor to treatment. Their team is studying the process of aging and how it impacts ability to tolerate cancer treatments. [Read more](#)



Ashley Rosko, MD



Christin Burd, PhD

Study Suggests Radiation Plus Chemotherapy Is Best Treatment for Low-Grade Brain Tumors

Recent clinical trial findings show that patients with a low-grade form of brain cancer who are treated with radiation plus a combination of chemotherapy drugs have better survival than patients treated with radiation alone. The [study](#), published in the *New England Journal of Medicine*, came from a randomized phase III clinical trial of 251 people with grade 2 gliomas, tumors that occur mostly in young adults and cause progressive neurological problems and premature death. Researchers at the OSUCCC – James helped lead the study. [Arnab Chakravarti, MD](#), professor and chair of the Department of Radiation Oncology at Ohio State and director of the brain tumor program at the OSUCCC – James, is the trial’s translational research national study chair. [Read more](#)



Arnab Chakravarti, MD

Nivolumab Improved Survival for Patients With Head and Neck Squamous Cell Carcinoma

Treatment with the immunotherapeutic nivolumab (Opdivo®) improved survival for patients with recurrent or metastatic head and neck squamous cell carcinoma that progressed after platinum-based chemotherapy compared with single-agent chemotherapy of the investigator’s choice, according to results from the [CheckMate-141](#) phase III clinical trial presented at the American Association for Cancer Research (AACR) annual meeting in April 2016. [Maura Gillison, MD, PhD](#), professor in the Department of Internal Medicine at Ohio State and member of the Cancer Control Program at the OSUCCC – James, says this study is the first randomized clinical trial to clearly demonstrate improved overall survival for patients with platinum-refractory recurrent or metastatic head and neck squamous cell carcinoma, adding that investigators hope the results will establish nivolumab as a new standard-of-care option for this patient population. [Read More](#)



Maura Gillison, MD, PhD

Primary Tumor Location Predicts Survival in Metastatic Colon Cancer, Impacts Choice of Targeted Therapy

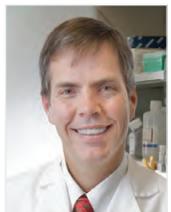
An analysis of phase III data from a large multicenter clinical trial (CALGB/SWOG 80405) finds that primary tumor location (left versus right side) can help predict survival and guide optimal treatment choices for patients with metastatic colon cancer. The study was presented at the 2016 American Society of Clinical Oncology Annual Meeting in Chicago. Researchers analyzed 1,100 patients treated at hundreds of hospitals across the United States and Canada, including 30 patients treated at The OSUCCC – James. Data showed that patients with primary colon tumors originating on the left side (descending colon, sigmoid colon and rectum) survived on average significantly longer than patients whose tumors originated on the right side (the cecum and ascending colon). Patients with left-sided tumors also had a longer median overall survival (33.3 months) than patients with right-side tumors (19.4 months). [Read More](#)



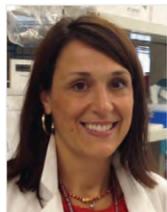
Cheryl London,
DVM, PhD

Scientists Study Cancer in Dogs to Help Humans With Same Disease

A new collaborative research program pairs oncologists who treat childhood and adult sarcomas with veterinarians who manage the same cancers in canine patients. The goal, says director [Cheryl London, DVM, PhD](#), is to accelerate the pace of translational research discoveries and new treatments for sarcoma, a diverse group of cancerous tumors that occur in soft tissue or bone. Established in 2016 by The Ohio State University College of Veterinary Medicine, the Comparative Oncology Signature Research Program is a partnership between the vet school and the OSUCCC – James that integrates nearly 40 scientists from the Ohio State colleges of Medicine, Pharmacy, Nursing and Veterinary Medicine, along with researchers from Nationwide Children's Hospital. The program addresses a significant challenge in the current clinical trials model: the lack of a close comparative testing model for translating drug discoveries to application in human cancer. [Read More](#)



John C. Byrd, MD



Rosa
Lapalombella, PhD

Pelotonia 'Idea Grant' Fuels New AML Research

Improving treatment options for one type of cancer is a launching point, not the finish line, for researchers at the OSUCCC – James. [John C. Byrd, MD](#), director of the Division of Hematology, and his team developed a drug called ibrutinib for treating chronic lymphocytic leukemia (CLL). This daily pill sends CLL into remission and keeps it there in most cases, allowing patients to live with it, Byrd says. But this wasn't enough. [Rosa Lapalombella, PhD](#), of the Division of Hematology, says Byrd challenged colleagues to "move our knowledge of molecular therapeutics and molecular biology to another cancer." Lapalombella accepted the challenge, and with funding from a Pelotonia Idea Grant she has targeted acute myeloid leukemia (AML). Aiming at cells in AML, she and her team are developing a new treatment for this complex form of blood cancer. [Read More](#)

Insights on Lung Microenvironment Explain Why Cancer Spreads to Lungs

The same mechanisms that prevent people from having an inflammatory response to harmless environmental exposures in day-to-day life could also allow rogue cancer cells to spread to the lungs, according to research from the OSUCCC – James. Researchers have discovered and described how the lungs' underlying immune environment enables cancer to spread to the lungs. They reported their [findings](#) online ahead of print in the journal *Cell*. [David Clever, PhD](#), first author of the manuscript, is a medical student at Ohio State who completed this research under the mentorship of Nicholas Restifo, MD, of the National Cancer Institute during the doctoral portion of Clever's work in the Medical Scientist Training Program in The Ohio State University College of Medicine. [Read More](#)



David Clever, PhD

Survey: Majority Under 35 Think E-Cigs Are Safer; Studies Aim to Find Out

Most Americans under age 35 think that using electronic cigarettes does not cause as much damage to lung health as compared with traditional cigarettes, according to results from a new national consumer survey. In the survey, which included more than 2,000 people under 35, 44 percent of respondents reported believing that e-cigarettes are less harmful to the lungs than traditional cigarettes. Among men, that number jumped to 54 percent who think e-cigarettes are safer. The OSUCCC – James is recruiting healthy volunteers who use tobacco products for two clinical studies under way to evaluate the health effects of electronic cigarettes (known as "e-cigs" or "vaping") and other tobacco products. "There is so much we don't know about these new products," says [Peter Shields, MD](#), a thoracic oncologist and deputy director of the OSUCCC. "We have no idea where in the spectrum these are, in terms of safety...We need to figure this out." [Read More](#)



Peter Shields, MD

Blocking PRMT5 Might Force Resistant Brain Tumor Cells Into Senescence

A study by OSUCCC – James researchers suggests that blocking an enzyme called PRMT5 in tumor cells could be a promising strategy for treating glioblastoma (GB), the most aggressive and lethal form of brain cancer. The [study](#), published in the journal *Oncogene*, shows that knocking down PRMT5 (protein arginine methyltransferase 5) might force the cells into senescence and slow or stop tumor growth. "Our findings show that inhibiting PRMT5 can affect both mature and immature tumor cells in glioblastoma, and they underscore the importance of developing PRMT5 inhibitors as a promising therapeutic approach for patients with these tumors," says principal investigator and OSUCCC – James researcher [Balveen Kaur, PhD](#), professor and vice chair of research in the Department of Neurological Surgery at Ohio State. [Read More](#)



Balveen Kaur, PhD



Mohamed Abdel-Rahman, MD, PhD

Increased Eye Cancer Risk Linked to Pigmentation Genes

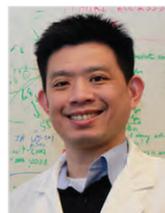
New research links specific inherited genetic alterations to an increased risk for eye (uveal) melanoma, a rare form of cancer arising from pigment cells that determine eye color. In this study—co-authored by ophthalmologic pathologist and cancer geneticist **Mohamed Abdel-Rahman, MD, PhD**, of the Molecular Biology and Cancer Genetics Program at the OSUCCC – James, and by cancer geneticist Tomas Kirchhoff, PhD, of the Perlmutter Cancer Center of New York University School of Medicine—scientists reported the first evidence of a strong association between genes linked to eye color and development of uveal melanoma. The research team reported its findings in the medical journal *Scientific Reports*. [Read More](#)



Timothy Cripe, MD, PhD

NCH Researchers Describe New Type of Cancer Therapy

A study conducted at Nationwide Children's Hospital (NCH) has found that a new chemotherapy is effective against both pediatric and adult cancers, and that it allows other chemotherapies to more readily reach their targets. Published in the journal *Pharmaceutical Research*, the study describes a novel class of antitumor amphiphilic amines (RCn) based on a tricyclic amine hydrophilic head and hydrophobic linear alkyl tail of variable length. Senior author on the paper is **Timothy Cripe, MD, PhD**, principal investigator in the Center for Childhood Cancer and Blood Disease in The Research Institute at NCH. Cripe, a professor in The Ohio State University College of Medicine, Department of Pediatrics, also is a member of the Translational Therapeutics Program at the OSUCCC – James. [Read More](#)



Quintin Pan, PhD



Ted Teknos, MD

New Drug Shows Promise in Treating Head and Neck Cancer Caused by HPV

A new drug shows great promise in melting away the cancer cells in head and neck tumors caused by human papillomavirus (HPV). The drug, which reactivates the anticancer *p53* gene, was developed under the leadership of **Quintin Pan, PhD**, a professor in the Department of Otolaryngology – Head and Neck Surgery at Ohio State and a member of the Translational Therapeutics Program at the OSUCCC – James. Pan's drug, OHM1, will soon begin clinical trials and could revolutionize the treatment of head and neck caused by HPV. The drug could also be used to treat cervical and anal cancers, says **Ted Teknos, MD**, who chairs the Otolaryngology Department and is Pan's mentor. [Read More](#)

Study Identifies Possible Marker for Lung Cancer Chemotherapy

The activity level of a certain gene in lung tumors might identify patients who likely will be helped by a particular chemotherapy regimen given to prevent recurrence after surgery, according to a study led by OSUCCC – James researchers and published in the journal *Clinical Cancer Research*. The study examined the expression of a gene called *SMARCA4/BRG1* in tumor cells from patients with earlier-stage non-small-cell lung cancer (NSCLC). The researchers found that low *SMARCA4* expression signals a poor prognosis, but also a significant sensitivity to the chemotherapy drug cisplatin. First author **Erica Bell, PhD**, says *SMARCA4*, which is commonly mutated in NSCLC, might identify patients who will benefit from cisplatin and other platinum-based drugs. [Read More](#)



Erica Bell, PhD

Argentine Tango Therapy Helps Restore Balance for Cancer Patients With Neuropathy

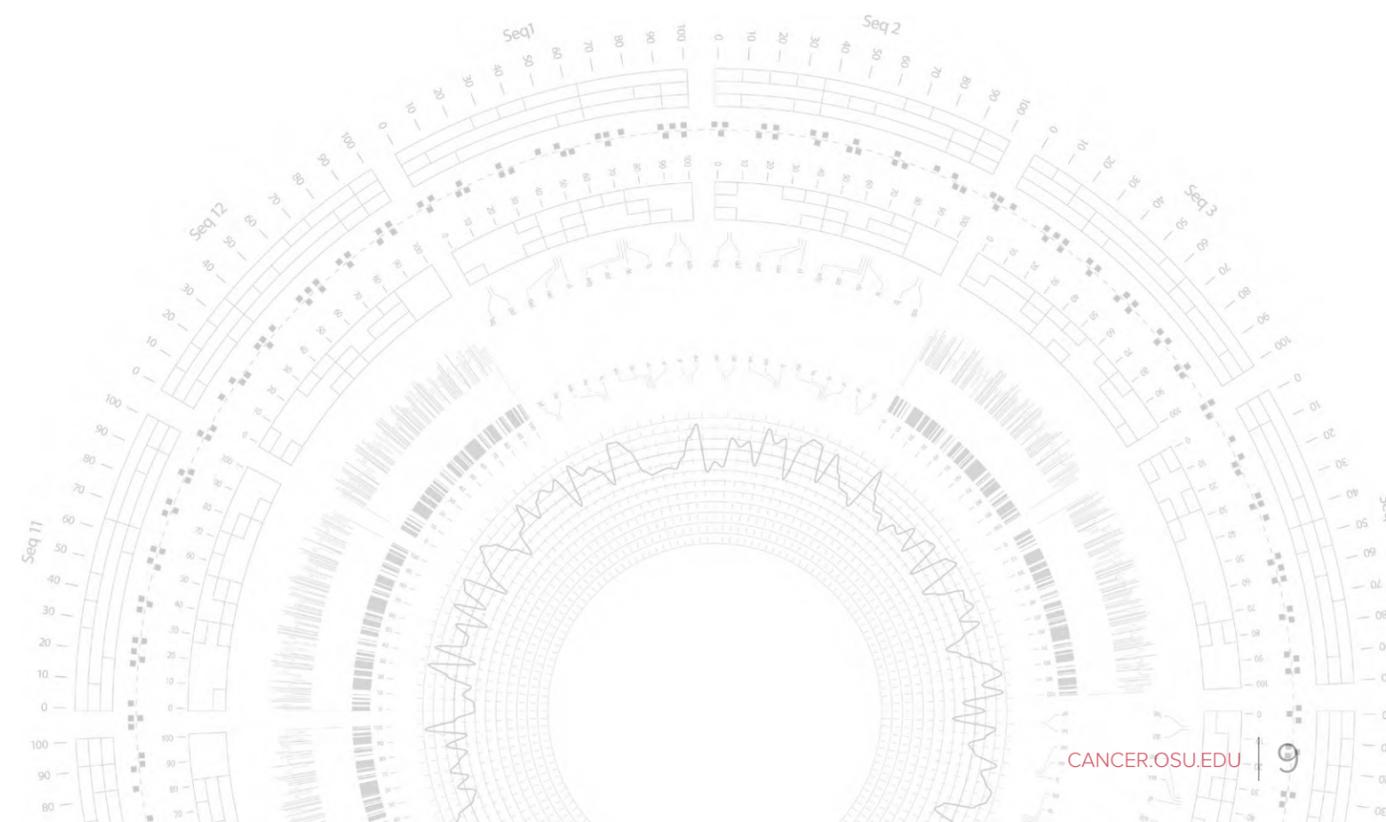
Dance as a form of therapy—specifically Argentine tango—has the potential to significantly improve balance and reduce the risk of falls among cancer patients experiencing peripheral neuropathy, according to research conducted by a multidisciplinary team at Ohio State. The pilot study was funded by Pelotonia, an annual grassroots bicycle tour that raises money for cancer research at Ohio State. Pelotonia fellow and pre-med/dance major **Mimi Lamantia** collaborated with **Lise Worthen-Chaudhari**, a physical rehabilitation specialist who studies movement at The Ohio State University Wexner Medical Center Neurological Institute, to conduct the research study. [Read More](#)



Mimi Lamantia



Lise Worthen-Chaudhari





Timothy Pawlik,
MD, MPH, PhD

Ohio State Lands Distinguished Surgeon, Liver Cancer Expert as New Chair

The Ohio State University Wexner Medical Center appointed a renowned surgeon and liver cancer expert to lead its surgical and surgical oncology programs. **Timothy Pawlik, MD, MPH, PhD**, became the new chair of The Ohio State University College of Medicine's Department of Surgery. Pawlik, who also holds the Urban Meyer III and Shelley Meyer Chair for Cancer Research, came to Ohio State from Johns Hopkins Hospital Department of Surgery, where he was the John L. Cameron Professor in Alimentary Tract Diseases, chief of the Division of Surgical Oncology, program director of the Surgical Oncology Fellowship and director of the Johns Hopkins Liver Tumor Center. The author or co-author of more than 600 published articles and over 50 book chapters, Pawlik has also edited five surgical textbooks. His primary clinical interests include alimentary tract surgery, with a special interest in liver, pancreatic and biliary diseases. [Read More](#)



Cheryl Taylore Lee,
MD

Bladder Cancer Expert Chairs Urology Department

The Ohio State University Wexner Medical Center tapped a prominent expert in bladder cancer to lead its urology, uro/gynecology and uro/oncologic programs. **Cheryl Taylore Lee, MD**, is chair of the College of Medicine's Department of Urology, one of only a few women to ever chair departments of urology in the United States. She also holds the Dorothy M. Davis Chair in Cancer Research. A tenured professor of urology and an expert in outcomes research and comparative studies, Lee joined Ohio State from the University of Michigan, where she was the Dr. Robert H. and Eva M. Moyad Research Professor of Urology. [Read More](#)



Dean Lee, MD,
PhD

Dean Lee Heads Cell Therapy Programs at NCH & OSUCCC – James

Dean Lee, MD, PhD, was named director of the Cellular Therapy and Cancer Immunotherapy Program for Nationwide Children's Hospital's (NCH) Division of Hematology/Oncology/BMT and Center for Childhood Cancer and Blood Diseases. Lee, who was recruited to Ohio State from The University of Texas MD Anderson Cancer Center in Houston, also serves as director of cellular therapy at the OSUCCC – James. The collaboration is dedicated to pursuing clinical trials and translational research to develop innovative immune treatments, including the use of advanced cellular therapy. By combining knowledge of the immune system with the power of stem cell transplantation, advanced cellular therapy aims to enhance the body's immune system to eliminate cancer while reducing the harmful side effects of toxic therapies. [Read More](#)

Renowned Scientists Lead Genomics Institute at NCH

Elaine Mardis, PhD, and **Richard Wilson, PhD**, who formerly co-directed the prestigious McDonnell Genome Institute at Washington University in St. Louis, have joined The Ohio State University College of Medicine and Nationwide Children's Hospital (NCH), where they are leading a new genomics institute. Mardis and Wilson are among the most respected and prolific teams in science today. Collectively, they have played key roles in many of the most notable federally funded genomics research initiatives, including the Human Genome Project, the Cancer Genome Atlas, the Human Microbiome Project and the 1,000 Genomes Project. Mardis also is in the Translational Therapeutics Program at the OSUCCC – James. [Read More](#)



Elaine Mardis,
PhD



Richard Wilson,
PhD

Lessnick Directs Center for Childhood Cancer and Blood Diseases at NCH

Stephen Lessnick, MD, PhD, has joined The Ohio State University College of Medicine as a professor in the Division of Pediatric Hematology and Oncology, and as director of the Center for Childhood Cancer and Blood Disorders at Nationwide Children's Hospital (NCH). As director, Lessnick leads a team of pediatric researchers who are working to better understand the development of childhood cancer and to transform diagnostic and treatment strategies. He also is in the Molecular Biology and Cancer Genetics Program at the OSUCCC – James. His personal research is in the area of Ewing sarcoma. Lessnick formerly was at the University of Utah and directed the Center for Children's Cancer Research at Huntsman Cancer Institute. [Read More](#)



Stephen Lessnick,
MD, PhD

Top Nanobiotechnology Scientist Joins Ohio State Faculty

Peixuan Guo, PhD, one of the top nanobiotechnology experts in the world, was recruited from the University of Kentucky to Ohio State's College of Medicine as the first Sylvan G. Frank Endowed Chair in Pharmaceutics and Drug Delivery Systems. Guo was recruited in collaboration with Ohio State's Dorothy M. Davis Heart and Lung Research Institute and has a joint appointment in the College of Medicine's Department of Physiology and Cell Biology. He also is a member of the Translational Therapeutics Program at the OSUCCC – James, where his major research interest is in applying RNA nanotechnology to cancer therapy. [Read More](#)



Peixuan Guo, PhD



Balveen Kaur, PhD

NCI Grant Will Help Researchers Improve Viral Therapy

The National Cancer Institute (NCI) awarded a five-year grant of just over \$2 million to help an OSUCCC – James research team further its work to enhance viral therapy against brain tumors. The team, led by principal investigator **Balveen Kaur, PhD**, will study the impact of an oncolytic (cancer-killing) virus carrying an anticancer protein on brain tumors known as gliomas. Kaur and her team will gauge the effect of using herpes simplex virus-type 1 (HSV-1) armed with vasculostatin (Vstat120) on antitumor immunity, both as a single agent and in combination with drugs called proteasome inhibitors. Vstat120 is the extracellular fragment of brain angiogenesis inhibitor1, a protein that has potent antitumor effects. [Abstract](#)



Terence Williams, MD, PhD

Researchers Gain NCI Grant for Pancreatic Cancer Study

A team of scientists at the OSUCCC – James landed a five-year grant for \$1.97 million from the National Cancer Institute for a study designed to be the first to refine an existing therapy in pancreatic cancer (PC) through targeting a specific molecular pathway. Led by principal investigator **Terence Williams, MD, PhD**, the scientists identify that there is a pressing need for new therapies for PC and to determine whether existing therapies will be ineffective in certain patients. Abraxane® is a chemotherapy drug that, when paired with gemcitabine, has shown improvement in some PC patients. This team has identified a protein “that is abundant in pancreatic cancer cells, important for their growth and may be important for entry and response of Abraxane® into tumor cells, thus serving as a potential biomarker for personalization of therapy and a target for further research.” [Read More](#)



William Carson III, MD

NCI Grant Supplement Supports Early Clinical Trials Research

Novel drug treatments are being tested at Ohio State with the help of a \$2.52 million grant supplement from the National Cancer Institute (NCI) that supports the use of new compounds that have shown promise in early testing. **William Carson III, MD**, professor in the Division of Surgical Oncology at Ohio State and associate director for clinical research at the OSUCCC – James, received the grant for a project titled “UM1 Supplement for Early Therapeutic Trials With Phase 2 Intent.” This grant enables Ohio State researchers to conduct clinical trials in cancer patients using novel drugs provided by the NCI. [Read More](#)

James Researchers Gain Large Grants for New Cancer Studies

Cancer researchers at the OSUCCC – James recently received four large federal grants of more than \$1 million each to further their studies in various malignancies. Principal investigators (PIs) for the research teams receiving these grants are **Craig Hofmeister, MD, MPH**; **Michael Tweedle, PhD**, **Michael Knopp, MD, PhD**, and **Thomas Rosol, DVM, PhD**; **Sujit Basu, MD, PhD**; and **Altaf Wani, PhD**, and **Qianzheng Zhu, PhD**.

- Hofmeister received a five-year, \$2.3 million grant from the National Cancer Institute (NCI) to study ways for patients to overcome resistance to immune modulatory drugs (IMiDs) in multiple myeloma (MM) therapy.
- Tweedle, Knopp and Rosol received a four-year, \$2.33 million grant from the National Institute of Biomedical Imaging and Bioengineering to study an image-guided transcatheter peptide receptor radiotherapy for prostate cancer.
- Basu is PI on a five-year, \$1.5 million grant from the National Heart, Lung and Blood Institute to study the role of chebulinic acid in the development of blood vessels (angiogenesis).
- Wani and Zhu are PIs for a five-year, \$2.26 million grant from the National Institute of Environmental Health Sciences for a study of cross-talking events of eukaryotic DNA damage response (DDR).

[Read the four grant summaries](#)

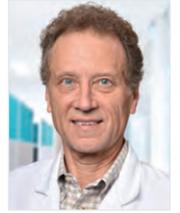
Federal Grants Will Support Ohio State Research in Multiple Myeloma & Breast Cancer

OSUCCC – James researchers recently received two grants— one from the Department of Defense and one from the National Cancer Institute—of more than \$1 million each for separate studies in breast cancer and multiple myeloma. Co-principal investigators (PIs) for the multiple myeloma grant are **Craig Hofmeister, MD, MPH**, of the OSUCCC – James, and **Flavia Pichiorri, PhD**, formerly of Ohio State and now of City of Hope Comprehensive Cancer Center in Duarte, Calif. (the grant is between both institutions). PI for the breast cancer grant is **Ramesh Ganju, PhD**, and the partnering investigator is **Xue-Feng Bai, MD, PhD**, both of the OSUCCC – James.

The grant to Hofmeister and Pichiorri is for a study of **“Reolysin-Based Combination Therapy in Relapsed Multiple Myeloma.”** The grant to Ganju and Bai is for a study titled **“CNR2: A Novel Therapeutic Target Against Aggressive and Metastatic Breast Cancer.”** [Read More](#)



Craig Hofmeister, MD, MPH



Michael Tweedle, PhD



Michael Knopp, MD, PhD



Thomas Rosol, DVM, PhD



Sujit Basu, MD, PhD



Altaf Wani, PhD



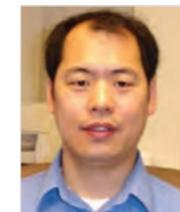
Qianzheng Zhu, PhD



Craig Hofmeister, MD, MPH



Ramesh Ganju, PhD



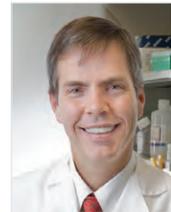
Xue-Feng Bai, MD, PhD



Michael A. Caligiuri, MD

Caligiuri Elected to Top AACR Leadership Position

Michael A. Caligiuri, MD, director of The Ohio State University Comprehensive Cancer Center and CEO of the James Cancer Hospital and Solove Research Institute, was elected as president-elect of the American Association for Cancer Research (AACR) for 2016-17. Founded in 1907, the AACR is the world's first and largest professional organization dedicated to advancing cancer research and to preventing and curing cancer. Caligiuri assumed his post as president-elect at the 2016 AACR Annual Meeting held April 16-20 in New Orleans. He will assume the presidency in April 2017. [Read More](#)



John C. Byrd, MD

Byrd Wins Major National Award for Clinical Cancer Research

John C. Byrd, MD, professor and director of the Division of Hematology at Ohio State and co-leader of the Leukemia Research Program at the OSUCCC – James, received the 21st Annual Joseph H. Burchenal Memorial Award for Outstanding Achievement in Clinical Cancer Research during a ceremony at the American Association of Cancer Research (AACR) Annual Meeting in New Orleans. Byrd, who holds the D. Warren Brown Designated Chair in Leukemia Research, also was named a 2016 Distinguished University Professor, the highest honor that Ohio State bestows on faculty members. [Read More](#) In addition, Byrd was elected to a four-year term as a councilor for the American Society of Hematology (ASH), the world's largest professional society concerned with the causes and treatment of blood disorders. He is one of four people elected to the ASH Executive Committee for terms that began after the 2016 Annual Meeting in San Diego. [Read More](#)



Maura Gillison, MD, PhD

Gillison Named to National Academy of Medicine

Maura Gillison, MD, PhD, professor in the Division of Medical Oncology at Ohio State and member of the Cancer Control Program at the OSUCCC – James, was elected as a member of the prestigious National Academy of Medicine (NAM) for her distinguished contributions to the fields of cancer biology, tumor virology and epidemiology. Gillison is among 70 newly elected regular members and nine newly elected international members announced by the NAM during its recent annual meeting. Election to the NAM, considered one of the highest honors in the fields of health and medicine, recognizes individuals who have demonstrated outstanding professional achievement and commitment to service. Gillison, who also holds the Jeg Coughlin Chair in Cancer Research, is a head and neck medical oncologist and molecular epidemiologist whose lab team focuses on the role of human papillomavirus (HPV) infection in head and neck malignancies. [Read More](#)

Bloomfield Elected as Fellow in Prestigious AACR Academy

Clara D. Bloomfield, MD, a Distinguished University Professor at Ohio State who also serves as cancer scholar and senior adviser to the OSUCCC – James, was elected as a fellow in the prestigious American Association for Cancer Research (AACR) Academy. The 2016 class of 11 fellows was inducted on the eve of the AACR Annual Meeting in New Orleans. Bloomfield, who holds the William Greenfield Pace III Endowed Chair in Cancer Research at Ohio State, was elected for her research devoted to defining chromosomal abnormalities that contribute to hematologic malignancies. The AACR Academy was created in 2013 to recognize scientists whose major scholarly contributions have propelled significant innovation and progress against cancer. [Read More](#)

In addition, Bloomfield, Carlo Croce, MD, and John C. Byrd, MD, were included on the 2016 list of Highly Cited Researchers announced in November by Clarivate Analytics, formerly the Intellectual Property & Science business of Thomson Reuters. The list is a citation analysis identifying scientists whose research has had significant global impact within their fields of study. Bloomfield, Croce and Byrd were in the Clinical Medicine category and were among 10 researchers from Ohio State on the list, which contained more than 3,000 researchers representing 21 fields of the sciences and social sciences. They were selected based on the number of highly cited papers they produced from January 2004 to December 2014. Croce is professor and chair of the Department of Cancer Biology and Genetics at Ohio State, where he also is director of human cancer genetics. Byrd is a Distinguished University Professor and director of the Division of Hematology at Ohio State, where he also co-leads the Leukemia Research Program.

Drs. Caligiuri, Retchin & Allen Honored as Outstanding Leaders

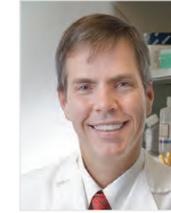
Becker's Hospital Review, a monthly publication offering up-to-date business and legal news and analysis relating to hospitals and health systems, featured five Ohioans—including three associated with Ohio State—on its [2016 list of 110 physician leaders to know](#). The trade publication's list, which featured hospital and health system presidents and CEOs who also hold medical degrees, included OSUCCC Director and James CEO Michael A. Caligiuri, MD; Ohio State University Wexner Medical Center CEO Sheldon Retchin, MD, MSPH; and Nationwide Children's Hospital CEO Steven Allen, MD. The list highlighted those who have "demonstrated outstanding leadership and clinical expertise throughout their careers, leading initiatives to improve their organizations and the health care of the communities they serve."



Clara D. Bloomfield, MD



Carlo Croce, MD



John C. Byrd, MD



Michael A. Caligiuri, MD



Sheldon Retchin, MD, MSPH



Steven Allen, MD



Jeffrey Fowler, MD

Fowler Completing 1-Year Term as SGO President

Jeffrey Fowler, MD, professor and vice chair of the Department of Obstetrics and Gynecology at Ohio State, where he also holds the John G. Boutselis Chair in Gynecology, began a one-year term as the 48th president of the **Society of Gynecologic Oncology (SGO)** in March 2016 at the conclusion of the SGO's Annual Meeting on Women's Cancer, which was held in San Diego. Fowler, a member of the Cancer Control Program at the OSUCCC – James, has made gynecologic oncology wellness a priority for his term as president. SGO's Gynecologic Oncology Wellness Task Force was formed in response to a membership survey on stress/burnout that Fowler conducted and presented at the 2014 SGO annual meeting. The task force is developing resources to be made available to SGO members. [Read More](#)



Rebecca Jackson, MD



Electra Paskett, PhD, MSPH

Jackson, Paskett Represent Women's Health Initiative in Accepting Award

Rebecca Jackson, MD, director of the Ohio State Center for Clinical and Translational Science (CCTS) and a member of the Cancer Control Program at the OSUCCC – James, and **Electra Paskett, PhD, MSPH**, associate director for population sciences and leader of the Cancer Control Program at the OSUCCC – James, were selected to represent the Women's Health Initiative (WHI) in receiving the **10th Annual Team Science Award from the American Association for Cancer Research**. The national WHI team received this award for its collective efforts that have broadened the understanding of the effects of hormone therapy and nutrition on cancer. Jackson, who also is associate dean for clinical research in the Ohio State College of Medicine, is the Ohio State site/regional center principal investigator and chair of the WHI Steering Committee. Paskett, who also directs the Division of Cancer Prevention and Control at Ohio State, is a site co-investigator for the WHI and an investigator for the WHI Cancer Survivor Study funded by the National Cancer Institute.



Lanchun Lu, PhD

Lu Wins ASTRO Senior Investigator Award

The American Society for Radiation Oncology (ASTRO) awarded **Lanchun Lu, PhD**, assistant professor in the Department of Radiation Oncology at Ohio State, the **2016 ASTRO Basic/Translational Senior Investigator Award** for his innovative work on Endoscopic 3-D OCT-Guided Brachytherapy for Early Stage Pancreatic Cancers. **Arnab Chakravarti, MD**, professor and chair of the Department of Radiation Oncology, says Lu's approach to treating pancreatic cancer "was judged to be one of the most innovative, impactful developments in radiation oncology internationally and was designated as a featured presentation at the 2016 ASTRO Annual Meeting in Boston."

Moffatt-Bruce Joins Prestigious National Board

Susan Moffatt-Bruce, MD, PhD, MBA, chief quality and patient safety officer at The Ohio State University Wexner Medical Center, was named to a one-year term as **chair-elect and secretary on the board of directors for Essential Hospitals Institute**, the research and quality arm of America's Essential Hospitals. Moffatt-Bruce is a professor in the Division of Thoracic Surgery at Ohio State with specialty interests in end-stage lung disease, transplant outcomes and thoracic oncology. As a national leader in quality and safety, she joins other physician leaders from prominent academic medical centers and Safety Net hospitals from across the nation on the Essential Hospitals Institute board. [Read More](#)



Susan Moffatt-Bruce, MD, PhD, MBA

Paskett Appointed to National Cancer Advisory Board

President Barack Obama in June 2016 announced a number of appointments to key posts in his administration, including **Electra Paskett, PhD, MSPH**, to the **National Cancer Advisory Board**. Paskett holds the Marion N. Rowley Chair in Cancer Research at Ohio State, where she also is a professor of both Epidemiology and Public Health, and directs the Division of Cancer Prevention and Control in the College of Medicine's Department of Internal Medicine. In addition, she is associate director for population sciences and leader of the Cancer Control Program at the OSUCCC – James.



Electra Paskett, PhD, MSPH

Shields Receives Cullen Award for Tobacco Research Excellence

Peter Shields, MD, deputy director of the OSUCCC and a professor in the Division of Medical Oncology at Ohio State, received the Joseph W. Cullen Award for excellence in tobacco research at the 40th Annual Meeting of the American Society of Preventive Oncology (ASPO) held in Columbus, Ohio. The award recognizes distinguished achievement in continued national tobacco-control efforts through research, the development of prevention and cessation programs with wide-ranging public health impact, and public policy and advocacy initiatives. As award recipient, Shields presented "**Tobacco Research and Regulation: Translational Science Cannot Be More Clear**" at the ASPO annual meeting.



Peter Shields, MD



Arnab Chakravarti,
MD

Chakravarti Earns Lifetime Achievement Award From SAASCR

Arnab Chakravarti, MD, professor and chair of the Department of Radiation Oncology at Ohio State and a member of the Translational Therapeutics Program at the OSUCCC – James, received the 2016 Lifetime Achievement Award from the Society of Asian-American Scientists in Cancer Research (SAASCR) for his sentinel contributions in translational cancer research and in the brain tumor field. Chakravarti, who also holds the Max Morehouse Chair in Cancer Research, received his award at an April 2016 ceremony coinciding with the American Association for Cancer Research (AACR) annual meeting in New Orleans.



Douglas Martin,
MD

Martin Appointed Physician Chair of ASTRO Accreditation Committee

Douglas Martin, MD, associate professor in the Department of Radiation Oncology at Ohio State, was appointed as physician chair of the American Society for Radiation Oncology's (ASTRO) APEX Accreditation Committee. "This position gives Doug a special (role) in oversight of clinical radiation oncology programs in the United States and reflects the immense respect for his leadership, clinical prowess and judgment by his peers nationally," says Arnab Chakravarti, MD, professor and chair of the Department of Radiation Oncology.



Maryam Lustberg
MD, MPH

Lustberg Named Vice Chair of Multinational Study Group

Maryam Lustberg, MD, MPH, assistant professor in the Division of Medical Oncology at Ohio State and member of the Cancer Control Program at the OSUCCC – James, has been appointed vice chair of the Neurological Complications Study Group within the Multinational Association of Supportive Care in Cancer (MASCC). According to its website, the MASCC is a multidisciplinary organization dedicated to research and education in all aspects of supportive care for people with cancer, regardless of the stage of their disease. Founded in 1990, the MASCC includes members in more than 60 countries and on five continents.

James Patient Participation Tops 23,000 in Total Cancer Care® Protocol

More than 23,000 patients at the OSUCCC – James are voluntarily participating in the Total Cancer Care® (TCC) protocol for sharing clinical data that helps move cancer research forward and personalizes cancer care. The TCC protocol helps clinicians understand the differences between cancer patients and find ways to individualize prevention, detection and treatment. The TCC protocol has been adopted by all 15 member institutions across the nation that constitute the **Oncology Research Information Exchange Network (ORIEN)**, a research collaboration that was co-founded and is co-anchored by the OSUCCC – James and Moffitt Cancer Center in Tampa, Fla.

ORIEN members implement a common protocol (TCC) and share de-identified clinical data from consenting patients to support research and help match patients to clinical trials. Through ORIEN, thousands of TCC-consented patients across the United States have agreed to donate their clinical data for research to help scientists understand cancer at the molecular level, making ORIEN the world's largest precision medicine collaboration to address cancer. Some 96 percent of patients at the OSUCCC – James who have been approached about joining the TCC protocol have agreed to participate.

OSUCCC – James Joins National 'Call to Action' for HPV Vaccination to Prevent Cancer

The OSUCCC – James joined other National Cancer Institute (NCI)-designated cancer centers in issuing a "call to action" for increasing vaccination against human papillomavirus (HPV) to help prevent cancer. According to the Centers for Disease Control and Prevention (CDC), approximately 79 million people in the United States are infected with HPV, some 14 million new infections occur each year, and about 27,000 men and women in this country are diagnosed annually with an HPV-related cancer, including cervical, anal, oropharyngeal (middle throat) and other cancers. "Even though many HPV-related cancers are preventable with a safe and effective vaccine, HPV vaccination rates across the United States remain low," the statement contends. Following CDC recommendations, the cancer centers "encourage all parents and guardians to have their sons and daughters complete the 3-dose HPV vaccine series before the 13th birthday, and complete the series as soon as possible in children aged 13-17." They also encourage young men up to age 21 and young women up to age 26 who were not vaccinated as preteens or teens to complete the 3-dose series. **Read the full statement.** A revision to the CDC recommendations was expected in early 2017.



Douglas Lowy, MD

Ohio State Hosts HPV Summit on Increasing HPV Vaccination

Nearly 150 cancer control/prevention researchers and public health leaders from the National Cancer Institute (NCI), Centers for Disease Control, American Cancer Society and leading NCI-designated comprehensive cancer centers gathered in Columbus, Ohio, from June 30-July 1 to share best practices about what does and doesn't work in increasing human papillomavirus (HPV) vaccination rates. The HPV Summit was hosted by the OSUCCC – James. Douglas Lowy, MD, acting director of the National Cancer Institute (NCI), served as keynote speaker at the summit and talked about the potential place for HPV vaccine research in the national Cancer Moonshot initiative. He also updated research that is under way to develop the next version of the HPV vaccine. [Read More](#)

4th International Rb Meeting Hosted by Ohio State

Scientists from around the world presented at the 4th International Rb Meeting on Sept. 25-28 at the Hilton Columbus Downtown. Rb was the first tumor-suppressor gene cloned, more than 25 years ago. This seminal discovery led to an intense research effort culminating in the elucidation of the Rb pathway and fundamental mechanisms governing the G1/S transition of the cell cycle. A number of scientists in the large Rb field thought a few years ago that a major hurdle was the lack of opportunities for researchers to meet, present their data and exchange ideas. The International Rb Meeting enables them to do that. [Read More](#)



Jeff Walker, MBA

Ohio State Set to Launch First-of-its-Kind Digital Pathology Platform

The OSUCCC – James has selected cancer diagnostics and digital pathology workflow solution provider Inspirata Inc. to provide a comprehensive long-term digital pathology workflow solution. “The solution that Inspirata is implementing at the OSUCCC – James will enable them to incrementally transform their cancer detection and diagnostic processes from being anchored in the analog world to being opened to the broad spectrum of advantages afforded by the digital world,” says Inspirata Chairman and CEO Satish Sanan. Jeff Walker, MBA, senior executive director of the OSUCCC – James, says the cancer program is “excited to partner with Inspirata to implement a digital pathology workflow that aligns with our strategic goals of advancing cancer research and care.”

Drug Development Institute Works With Startup Company to Develop Epigenetic Inhibitors

The Ohio State University has announced an exclusive license agreement between the Ohio State Innovation Foundation (OSIF) and a startup therapeutics company to develop new drugs that inhibit an enzyme called PRMT5 as potential treatments for cancer and other unmet medical needs. In collaboration with The Ohio State University Comprehensive Cancer Center's Drug Development Institute (DDI), a team of scientists will work to advance this PRMT5 therapeutic program toward preclinical drug development. Robert Baiocchi, MD, PhD, a member of the Leukemia Research Program at the OSUCCC – James, serves as lead investigator of the PRMT5 research team. The DDI (cancer.osu.edu/ddi) identifies promising anticancer agents discovered at Ohio State and advances them through the preclinical development process with a goal of partnering with the pharmaceutical industry, all to accelerate getting new therapies to cancer patients. [Read More](#)



Robert Baiocchi, MD, PhD

The James Earns Press Ganey Excellence Award for Patient Experience

The James Cancer Hospital and Solove Research Institute earned a 2016 Press Ganey Guardian of Excellence Award for Patient Experience in Inpatient Care and HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems). Press Ganey, the nationally recognized leader in measuring patient experience, presents the Guardian of Excellence Award for Patient Experience only to organizations that have achieved the 95th percentile or higher overall rating in each reporting period during a given year, in this case from May 2015 through April 2016. HCAHPS measures the effectiveness of physician and nursing communication with patients, responsiveness to patient needs, pain management, communication regarding medications, and providing a quiet and clean environment.



James Oncology & Critical Care Advanced Practice Fellowship Earns ANCC 'Accreditation With Distinction'

After conducting an extensive evaluation, the American Nurses Credentialing Center's (ANCC) Commission on Accreditation has awarded “Accreditation with Distinction” status to The James Oncology and Critical Care Advanced Practice Fellowship. Only organizations that demonstrate no deficiencies requiring a progress report achieve Accreditation with Distinction status, according to the ANCC, which also reports that, as of September 2012, less than 10 percent of all ANCC-accredited organizations achieve this honor.





The James Named Designated Centre of Integrated Oncology and Palliative Care

The James is among 14 institutions around the world that were named as **Designated Centres of Integrated Oncology and Palliative Care** by the European Society for Medical Oncology (ESMO) at the ESMO 2016 Congress in Copenhagen, Denmark. The Designated Centre distinction is now held by 200 institutions in 42 countries. The ESMO Designated Centres Program is the premier initiative worldwide for championing integrated programs in oncology and palliative care to ease the physical and mental suffering of cancer patients during treatment and at the end of life. Since 2003 the distinction, which is valid for three years, has recognized cancer centers that achieve a high standard of integration of medical oncology and palliative care.

Create a cancer-free world with us give.osu.edu/James.

To read more about the stories that appear in this 2016 Accomplishments Report, visit [cancer.osu.edu/2016 accomplishments](https://cancer.osu.edu/2016accomplishments) and view a digital version that contains hyperlinks to additional information.

To learn more visit us at cancer.osu.edu or connect with us on social media.



If you would like additional information from the OSUCCC – James, visit <https://cancer.osu.edu/email-signup>.



Pelotonia 16 Raises Over \$24 Million for Cancer Research at Ohio State

Pelotonia 16, the eighth installment of an annual grassroots bicycle tour that raises money for cancer research at the OSUCCC – James, raised a record **\$24,104,432**, pushing the eight-year total past **\$130 million**. Donors from all 50 states and more than 60 countries contributed to the funds raised by the event's 275 pelotons (riding groups). Specifically, when the 2016 tour unfolded Aug. 6-7 between Columbus and Gambier, Ohio (home to Kenyon College), 7,749 riders and 2,790 volunteers from 40 states and eight countries participated in six routes that ranged from 25 to 180 miles. **Read More**

To view the 2016 Pelotonia Investment Report, visit the OSUCCC – James website at cancer.osu.edu/pelotoniareport2016.



Save the Date!

We hope you can join us for Pelotonia 17, which is scheduled to take place Aug. 4-6, 2017. Registration will open Feb. 8, 2017, at pelotonia.org.

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