



INVESTING IN A CANCER-FREE WORLD 2012

Ohio State Putting Pelotonia Dollars to Work





THE WHEELS KEEP TURNING FOR PELOTONIA, the annual grassroots bicycle tour that raises millions of dollars for cancer research at Ohio State's Comprehensive Cancer Center - James Cancer Hospital and Solove Research Institute (OSUCCC - James). While Pelotonia 11 raised more than \$13 million, we anticipate Pelotonia 12 will exceed that total. Pelotonia 12 had more than 6,200 riders, making it the single largest cycling event, in terms of riders, in the United States.

Each of the Pelotonias held since this popular event was established in 2009 has successively attracted more riders, donors and volunteers while generating increasing sums of money, every dollar of which benefits cancer research and supports our shared vision of creating a cancer-free world, one person, one discovery at a time.

Everyone associated with Pelotonia should be proud of what we are accomplishing. At a time when government funding for cancer research is hard to obtain, we have stepped forward to raise money ourselves. And not just a little money, but more than \$25 million over Pelotonia's first three years - the kind of financial firepower that enables us to look cancer in the eye and confidently proclaim that we will one day conquer this disease in its many forms.

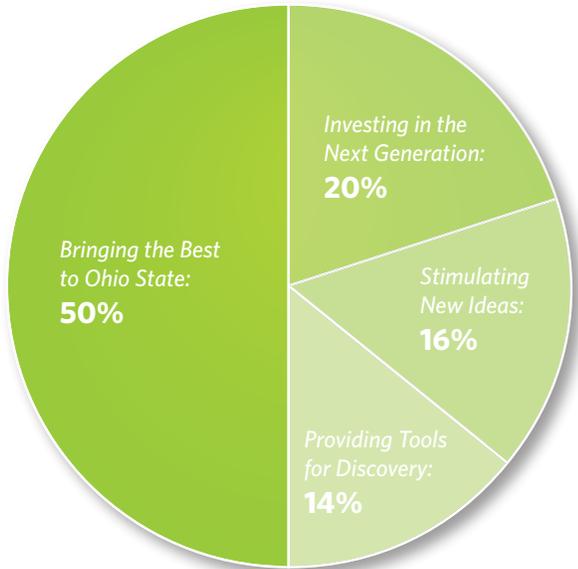
This report will briefly summarize (page 2) how Pelotonia funds have been spent over the event's first three years (2009-11), then look more in depth at allocations made over just the past year to support such things as fellowship grants for students, "idea" grants for teams of faculty scientists, equipment purchases and space development, and recruitment/retention of top scientists to our cancer program. It will also include some early "success stories" stemming from Pelotonia dollars.

On behalf of the OSUCCC - James family, I thank all Pelotonia riders, donors and volunteers for your generosity in supporting our cause against cancer. I also look forward to seeing you all again on next year's ride as our anticancer quest continues.

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

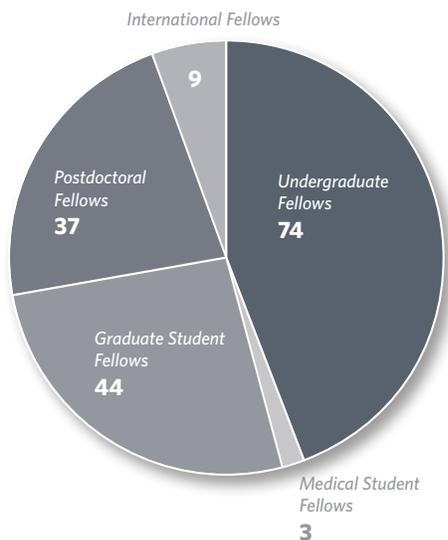
Three-Year Pelotonia Financial Summary

Allocations of Funding From Pelotonia09, 10, 11



Pelotonia, the annual grassroots bicycle tour established in 2009 to raise money for cancer research at the OSUCCC – James, generated more than \$25 million in its first three years through rider pledges and donations. Each of Pelotonia’s first three years saw an increase in riders, volunteers and dollars raised: **2009** – 2,250 riders, 1,200 volunteers, \$4.5 million; **2010** – 4,047 riders, 1,600 volunteers, \$7.8 million; **2011** – 4,986 riders, 1,700 volunteers, \$13.1 million. Thanks to the event’s generous underwriters, every dollar raised by riders and donors has been spent on or committed to research-related expenditures, as shown in the chart to the left.

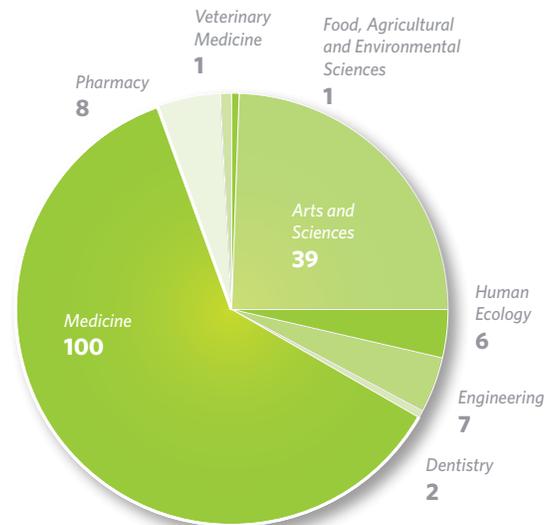
Fellowship Grants Awarded



Investing in the Next Generation: Pelotonia Fellowship Program

To date, \$5 million in Pelotonia funding has supported the Pelotonia Fellowship Program, which provides research money for Ohio State students at all levels of scholarship – undergraduate, graduate, medical school and postdoctoral fellows – who want to conduct cancer research in the labs of faculty mentors.

Ohio State Colleges with Pelotonia Fellows



Spanning the University

Pelotonia fellowship recipients may be from any discipline of study. To date, eight colleges and 38 departments at Ohio State are represented in the Fellowship Program. The above chart offers a breakdown of colleges receiving fellowship grants.

Pelotonia Fellowship Program 2011-2012

From October 2011 to October 2012, the Pelotonia Fellowship Program awarded 45 fellowships to Ohio State students at all levels of scholarship and from multiple disciplines who have chosen to conduct cancer research in the labs of faculty mentors. These recipients included 18 undergrads, 12 grads, one medical school student and 14 postdoctoral fellows. Here's a look at six fellowship recipients and their research:



BEN HEMMELGARN, an undergraduate fellow majoring in Molecular Genetics, is studying in the lab of Gustavo Leone, PhD. Hemmelgarn's project, "Dissecting the Intersection Between the *Rb* and *Myc* Pathways *in vivo*," investigates the relationship between the *Rb* tumor-suppressor gene and c-Myc transcription factor in the mouse small intestine. He aims to discover the connection between two important cell-cycle regulators to gain a better understanding of carcinogenesis.



SRIRAMA JOSYULA, an undergraduate fellow majoring in Biochemistry, is studying in the lab of Michael A. Caligiuri, MD. Josyula's project, "MicroRNA-155: Role in CD16-Mediated Natural Killer Cell Function *in vivo* Against Cancer," will identify the potential of using the microRNA-155 molecule to enhance the response of natural killer (NK) cells, which are part of the human immune system's defense mechanism against cancer. This work will provide information on targeted methods of treatment that may improve antibody therapies of cancer.



KINSHUK MITRA, an undergraduate fellow majoring in Biomedical Engineering, is studying with Ronald Xu, PhD, and Michael Tweedle, PhD. Mitra's project, "Novel Medical Device for Enrichment and Detection of Circulating Tumor Cells (CTCs)," aims to fabricate an assay that allows for real-time *in-vivo* detection of CTCs. This would allow for early detection of certain cancer types and synergetic delivery of cancer drugs based on disease expression profiles provided by CTCs.





RACHEL WEISKITTLE, an undergraduate fellow majoring in Psychology, is studying with Sharla Wells-DiGregorio, PhD. Weiskittle's project, "The Impact of Palliative Care for Cancer Patients and their Family Members," will determine whether family members of patients who received palliative care report less psychological distress about experiences in the patients' final days than family members of those who did not receive a specialty palliative care consult. Results from this study will identify leading causes of stress for cancer patients and their families within their hospital experiences.



WILLIAM HANKEY, a graduate fellow in the Biomedical Sciences Graduate Program, is studying in the lab of Joanna Groden, PhD. Hankey's project is titled "Chromatin-Associated Functions of the APC Tumor Suppressor." In cells that line the large intestine, the adenomatous polyposis coli (APC) protein interacts with DNA chromosomes and controls many genes involved in cancer. If APC becomes mutated, an intestinal polyp forms that can become cancerous. This project will identify genes controlled by APC and study their value as indicators for cancer prognosis or therapeutic decisions, or as potential targets for new cancer treatments.



TIFFANY HUGHES, PhD, a postdoctoral fellow in the lab of Don Benson, MD, PhD, is studying "The Role of Aryl Hydrocarbon Receptor Activation in Multiple Myeloma." Little is known about how people develop multiple myeloma (MM), a form of blood cancer, but environmental exposures may contribute. This project will examine the effects of some environmental substances that may lead to MM. Interestingly, these compounds may simultaneously promote MM and impair the body's immune system to fight the cancer. This knowledge may help understand where MM comes from and offer insight into its treatment and prevention.



Pelotonia Research Award Program ('Idea' Grants)

Innovative thinking leads to advances in science, but government funding is hard to obtain for the early pursuit of such initiatives. Through the Pelotonia Research Award Program, teams of creative scientists at Ohio State can apply for "idea" grants to help them start projects that can later attract larger external grants. In 2011-12, 13 teams representing collaborations among six University colleges received "idea" grants via a peer-review process conducted by scientists not competing for the awards. Here is a list of "idea" grants funded from October 2011-October 2012, their principal investigators and a brief description of the projects:

MARYAM LUSTBERG, MD;
COURTNEY DEVRIES, PHD

Chemotherapy-Induced Cognitive Deficits

More than 30 percent of breast cancer patients who receive chemotherapy report problems with memory, concentration, attention and understanding during and after treatment. The cause of these problems is poorly understood, and there is no effective treatment. These researchers hypothesize that chemotherapy leads to inflammation of certain brain cells, altering their structure and function, which causes cognitive problems. This study will be the first to test the idea that inflammation of neurons contributes to cognitive impairment.

DON BENSON, MD, PHD;
FLAVIA PICHIORRI, PHD

The Role of Microvesicles in Multiple Myeloma: Elucidating Mechanisms of Disease Propagation and Immune Suppression and Novel Targets for Intervention

Multiple myeloma (MM) is a cancer of white blood cells called plasma cells. MM cells require growth factors and other substances produced by normal bone-marrow cells for their growth and survival. The interactions between MM and cells could be important therapeutic targets, but little is known about how they occur. These researchers believe that microvesicles – tiny particles sometimes given off by cells – might serve as important messengers between MM and normal cells.

CHANG-HYUK KWON, PHD;
SUNG OK YOON, PHD

The Role of RAC1 GTPase in Astrocytoma Initiation

Malignant astrocytomas are highly fatal brain or spinal tumors with no effective treatment. To find better therapies, scientists must understand how astrocytomas begin. Evidence suggests the regulation of oxygen radicals – unstable oxygen molecules that react with other molecules in the cell – is critical for tumor initiation, but how oxygen radical levels are regulated is unclear. Using an astrocytoma mouse model, this study will examine genes called *RAC1* and *PRDX4*, which help regulate oxygen radicals in cells.

MIGUEL VILLALONA, MD

Combined EGFR and BRAF Blockade in Patients with Advanced Malignancies and BRAF-Mutant Tumors

Metastatic melanoma often has mutations that overactivate a cancer-causing gene called *BRAF*. Drugs called *BRAF* inhibitors target the overactive gene and can help these patients. Similar *BRAF* mutations are found in other cancers, including thyroid, colorectal and non-small-cell lung cancer. *BRAF* inhibitors might also help these patients, but these cancers often have high levels of the EGFR molecule, which often helps them resist *BRAF* inhibitors. This study tests the use of a *BRAF* inhibitor plus an EGFR inhibitor in patients with colorectal cancer, non-small-cell lung cancer and other solid tumors with *BRAF* mutations.





LISA YEE, MD

Eicosanoids as Biomarkers of Dietary ω -3 Fatty Acid Exposure and Response

Evidence indicates low levels of inflammation, which occur with metabolic diseases such as obesity and diabetes, can raise breast-cancer risk. There is also evidence that omega-3 fatty acids, found in fish oil and fatty fish, can reduce inflammation. This project analyzes biospecimens collected during two omega-3 fatty acid intervention studies in women at high risk for breast cancer. Findings will provide data to support the start of a breast-cancer prevention trial of omega-3 fatty acids in high-risk women.

CHARLES SHAPIRO, MD;
ERIN OLSON, MD

The Impact of Stromal PTEN Status on Pathological Complete Response Rates to Neoadjuvant Dual HER2-Targeted Therapy

Solid tumors contain cancer and noncancer (stromal) cells. Evidence shows that genetic changes in stromal cells can influence behavior of cancer cells and vice versa. For example, mouse mammary tumors grow faster when stromal cells have low levels of the PTEN protein. About half of human breast-cancer patients have low PTEN levels. This study will determine whether women with HER2-positive breast cancers that have higher versus lower PTEN levels in stromal cells have higher or lower remission rates after treatment with the drugs trastuzumab and lapatinib, compared to breast tumors having normal stromal PTEN levels.

SUMITHIRA VASU, MBBS;
JIANHUA YU, PHD

Decitabine Followed by NK-Cell Immunotherapy for Treatment of Elderly Patients With AML

In patients older than 60, acute myeloid leukemia (AML) is a devastating disease, with five-year survival rates below 10 percent. Allogeneic (from a donor) bone marrow transplantation extends life in many AML patients, but many elderly patients are ineligible for that therapy. This study tests whether treating older AML patients with a DNA hypomethylating agent called decitabine, plus infusions of cancer-fighting immune cells called NK-cells, might improve their therapy.

AMY FERKETICH, PHD;
ERIC SEIBER, PHD

Testing the Feasibility of a Contingency Management Intervention to Encourage Medicaid-Enrolled Smokers to Quit

Contingency management (CM) interventions use an incentive, usually a reward, to encourage people to change a behavior. This pilot study tests the use of a CM intervention to promote tobacco abstinence among Medicaid-enrolled smokers in Appalachia Ohio. The researchers will use data from this study to apply for National Institutes of Health funding to study a tobacco-dependence treatment intervention for Medicaid smokers that will include a CM component.

THOMAS SCHMITTGEN, PHD;
VINCENZO COPPOLA, MD

Pancreas-Specific microRNA Knockout for Tumorigenesis Study

Pancreatic cancer is one of the most lethal forms of cancer. Recent evidence suggests that noncoding microRNAs (miRNAs) might play an important role in initiating this disease. This study tests whether the loss of two miRNAs, miR-216 and miR-217, contributes to the development of pancreatic cancer (which would mean that they function as tumor suppressors in this disease). The findings will provide fundamental information about the role of these two miRNAs in pancreatic cancer development and progression.

MICHAEL TWEEDLE, PHD;
JOSH GOLDBERGER, PHD

PA-Cancer MRI Agents That Self-Assemble in Malignant Tumors

Getting anticancer drugs and imaging agents selectively into tumors and not healthy tissue remains a challenge. Many drugs target receptors on the cancer-cell surface, but cancer cells mutate rapidly, altering receptor structure and allowing tumors to escape receptor-targeted drugs. These investigators have developed a peptide amphiphile (PA) molecule that does not rely on specific receptors for delivering imaging agents and anticancer drugs to tumors. The researchers will refine the PA structure and demonstrate that the molecule will be selectively retained in tumors in an animal model.

Yael Vodovotz, PhD; Steven Clinton, MD, PhD;
Steven Schwartz, PhD; Chris Weghorst, PhD;
Dennis Pearl, PhD

Phytochemical Release Rate From Black Raspberry Confections Alters Gene Expression and Chemical Profiles Relevant to Inhibition of Oral Carcinogenesis

These investigators are developing a strategy for preventing oral cancer in people at high risk for the disease by using formulations of black raspberries, which have been shown to have anticancer activity. The researchers have developed a series of confections that release black raspberry phytochemicals in the mouth at varying rates. This study will support a clinical trial involving 60 healthy adults who will use the confections over two weeks at two doses of black raspberry phytochemicals released at three different rates.

STEVEN CLINTON, MD, PHD;
SUBHA RAMAN, MD;
ORLANDO SIMONETTI, PHD;
BRIAN FOCHT, PHD

Impact of Androgen Deprivation Therapy on Cardiac Function in Prostate Cancer Patients

Androgen deprivation therapy (ADT) is often a component of therapy intended to cure men with high-risk localized prostate cancer or to limit the progression of metastatic disease. But ADT is also linked to loss of skeletal muscle mass, lower bone mineral density, greater risk of metabolic syndrome, and a fatigue syndrome – effects that cause declines in performance status and quality of life. These researchers are currently doing NIH-funded research to quantify these declines in performance and quality of life in men on ADT, and to identify a diet/exercise program to prevent the declines. This cardiac-function study complements that work.

HIRANMOY DAS, PHD;
CHARLES SHAPIRO, MD

Developing a Combination Therapy Using ATM Inhibitor and $\gamma\delta$ T Cells for Breast Cancer

Studies by these researchers have shown that a subtype of immune cell, called $\gamma\delta$ T cells, limits the growth of multiple subtypes of breast-cancer cells by triggering apoptosis, a natural form of cell death. The researchers also have shown that $\gamma\delta$ T cells can inhibit tumor growth in at least one type of breast cancer in an animal model and determined the mechanism by which $\gamma\delta$ T cells trigger cell death. In this study, they will examine whether drugs called ATM inhibitors, combined with $\gamma\delta$ T cells, can better control tumor growth in an animal model than current treatments.



Stimulating New Ideas

To date, the Pelotonia Research Award Program has issued 29 "idea" grants totaling more than \$3 million that enable teams of scientists to pursue innovative research that could lead to better treatments and prevention strategies. The grants have gone to scientists and teams from eight colleges at Ohio State: Medicine; Pharmacy; Public Health; Arts and Sciences; Food, Agricultural and Environmental Sciences; Dentistry; Education and Human Ecology; and Veterinary Medicine; as well as Nationwide Children's Hospital.

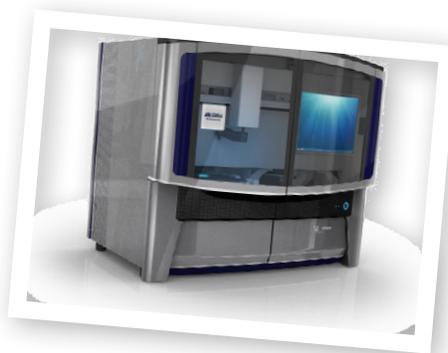


Providing Tools for Discovery

Approximately \$2.6 million in Pelotonia funds have helped bring new laboratories on line in the Biomedical Research Tower and have supported the purchase of scientific instrumentation that is available to the nearly 300 OSUCCC - James investigators. New advanced technology now available to investigators includes two BD FACS Aria analytical cytometers that can isolate, identify and sort millions of normal and cancer cells in seconds. In addition, the acquisition of a SOLiD™ System gene-sequencing platform, as well as a HiSeq™ 2000 Sequencer, gives scientists the capabilities of fully sequencing the genome (DNA) of animals and humans to help identify anomalies that may link to cancer and future treatment options. Previously, the time to sequence a human genome was measured in years; with this technology it can be done in days.



With its many lasers, the Special BD FACS Aria analytical cytometer brings new high-speed capabilities for sorting normal and cancer cells for genomic characterization.



The SOLiD™ System is a highly accurate, massively parallel, gene-sequencing platform that supports a range of applications.



The HiSeq™ 2000 Sequencer escalates sequencing throughput to enable researchers to sequence deeply, broadly and economically, accelerating the path to personalized medicine.



Don Benson, MD, PhD

From Ideas to Impact

The impact of Pelotonia dollars is perhaps seen most dramatically in discoveries that have been made by teams of researchers funded through Pelotonia over the past three years. While it's not possible to chart all of that progress in this report, the following helps share stories of impact, discovery and promise.



Steven Devine, MD

- An “idea” grant to study new approaches for treating multiple myeloma (MM), a currently incurable blood cancer, has helped a team of OSUCCC – James investigators publish four papers in scientific journals and submit a large grant application to the American Cancer Society (ACS) for further research. One paper published in the journal *Blood* by this team – which includes **Don Benson, MD, PhD; Steven Devine, MD; Pierluigi Porcu, MD; John C. Byrd, MD; and Robert Baiocchi, MD, PhD** – reported on a phase I clinical trial suggesting that a drug called IPH2101 is safe and tolerable and warrants further study for treating patients with relapsed/refractory MM. Another paper in *Blood* described how the same agent combined with the drug lenalidomide boosts the body’s natural killer (NK) cells against MM. A review paper in the journal *Leukemia & Lymphoma* summarized the NK cell versus MM effect and characterized promising therapeutic interventions. And a paper in the *Journal of Clinical Oncology* related the promise of a monoclonal antibody called elotuzumab as a pioneering therapy for MM. Benson notes that the team’s application for a \$1 million, four-year grant from the ACS has received an outstanding rating and may be funded in 2013.



Pierluigi Porcu, MD

- **Peter Houghton, PhD**, from Nationwide Children’s Hospital (NCH), and his lab have made several findings relating to drug resistance in a cancer called low-grade astrocytoma. The findings set the stage for evaluating new therapeutic approaches to prevent or reverse drug resistance in this disease, which is activated by mutations in a gene called *BRAF*. Houghton’s team made its findings after establishing a mouse model of astrocytoma that harbors an activating mutation in *BRAF*. Houghton, who directs the Center for Childhood Cancer at NCH and is a member of the OSUCCC – James, conducted this work with support from an “idea” grant to study mechanisms of drug resistance in this disease. His team is applying for a large National Cancer Institute (NCI) grant to support further study.



John C. Byrd, MD

- A health disparities team led by Ohio State is partnering with churches in a five-state region to refine and test a previously piloted faith-based intervention program to promote health and reduce cancer risk by addressing obesity. **Electra Paskett, PhD, MSPH**, associate director for population sciences at the OSUCCC – James, is principal investigator for the project, which is the research component of the larger Appalachian Community Cancer Project (ACCN) funded at \$6.13 million over five years by the NCI (including \$2.7 million for the research component). The intervention uses community-based participatory strategies aimed at two causes of obesity: sedentary lifestyle and unhealthy diet. Paskett says part of the intervention involves a two-year e-health computer program that tracks the number of steps taken per day by participants and gives them tailored messages about increasing physical activity and changing their diets. The e-health program was supported by an “idea” grant and “helped us secure NCI funding to do the whole research study in 20 churches throughout the ACCN region,” Paskett says, noting that the full-scale study has started.



Robert Baiocchi, MD, PhD

- Pelotonia money has helped the OSUCCC – James launch a statewide initiative that will provide large-scale screening of newly diagnosed colorectal cancer (CRC) patients and their biological relatives for Lynch syndrome (LS) to reveal others who may be at risk of developing CRC so they can take precautionary measures. The Ohio Colorectal Cancer Prevention Initiative (OCCPI) is led by **Heather Hampel, MS, CGC**, associate director of the Division of Human Genetics, who says about 3 percent of CRC cases result from Lynch syndrome, which is caused by inherited mutations in certain genes. On average, three relatives of each CRC patient with LS will also have the syndrome, heightening their risk for CRC. Based in large part on research conducted at the OSUCCC – James from 1999-2008, the Centers for Disease Control and Prevention recommends that all newly diagnosed CRC patients be screened for LS. The OSUCCC – James has done this since 2006 to help CRC patients and their at-risk relatives, who can also be screened and advised about increased surveillance if they too are found to have LS. The OCCPI will invite at least 25 hospitals across Ohio with the greatest volume of CRC patients to participate in an LS screening program at their own institutions, where they also will advise patients and their physicians of the results, offer genetic counseling and make cancer surveillance recommendations to patients and family members found to have LS.



Peter Houghton, PhD



Electra Paskett, PhD, MSPH



Heather Hampel, MS, CGC

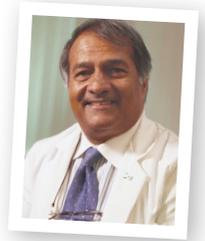
Generating New Hope Through Pelotonia-Funded Research

Developing and testing therapeutic agents is costly and time-consuming, but these agents offer great promise for preventing, treating and curing cancer. Pelotonia funds support cancer drug development projects at Ohio State, including: an early-phase clinical trial on the safety of an anticancer vaccine designed to prevent the recurrence of several types of solid tumors; a phase II clinical trial of an experimental drug for patients with certain forms of leukemia; and a basic science study that has discovered how tamoxifen-resistant breast cancer cells grow and proliferate. Here's a glance at each:

The vaccine trial, led by overall chair **Pravin Kaumaya, PhD**, and clinical co-principal investigators **Tanios Bekaii-Saab, MD**, and **William Carson III, MD**, has benefited some of the 12 cancer patients (two groups of six) who have received the vaccine since the trial opened at The James in July 2011. One component of the vaccine targets a molecule that occurs at abnormally high levels in up to 30 percent of breast cancers. Another component targets a molecule that is overexpressed in many other solid tumors, including ovarian, renal, colon, lung and gastrointestinal cancers. "The goals are to determine the safety and optimal dose of the vaccine, evaluate whether it shows therapeutic benefit by stimulating the immune system to respond to the patient's tumor, and document any clinical responses that may occur," Kaumaya says. The investigators report that four patients receiving the vaccine in group/dose level 1 had stable disease, while four patients in group/dose level 2 showed a partial response and three showed stable disease. Four patients have received a six-month booster so far.

The phase II clinical trial, open only at Ohio State, will determine the effectiveness of an experimental drug called PCI-32765 (ibrutinib) in treating patients with chronic lymphocytic leukemia (CLL), small lymphocytic leukemia (SLL) or B-cell prolymphocytic leukemia (B-PLL) who have not responded to or who have relapsed after standard treatment. Principal investigator **Kami Maddocks, MD**, says the drug involved in this trial, which opened in April 2012 and is recruiting patients, inhibits a certain protein that is believed to help blood cancer cells live and grow. "By inhibiting or 'blocking' the activity of this protein," Maddocks says, "it is possible that the study drug may kill the cancer cells or stop them from growing." The trial is studying all of the effects that treatment with this drug has on patients and their cancers.

The basic study that discovered how tamoxifen-resistant breast-cancer cells grow and proliferate also suggests that an experimental drug called vismodegib may offer a new targeted therapy for patients for whom tamoxifen therapy has failed. This study, published in the journal *Cancer Research*, showed that a signaling pathway called hedgehog (Hhg) can promote breast cancer cell growth after tamoxifen shuts down the pathway activated by the hormone estrogen, and that a second signaling pathway, called PI3K/AKT, is also involved. The researchers, led by principal investigator **Sarmila Majumder, PhD**, and first author **Bhuvanewari Ramaswamy, MD**, say activation of the Hhg pathway makes tamoxifen treatment ineffective, enabling the tumor to resume growth and progression. They analyzed more than 300 human tumors and found that those with an activated Hhg pathway had a worse prognosis. Finally, they showed that an experimental drug called vismodegib, which blocks the Hhg pathway, inhibits the growth of tamoxifen-resistant human breast tumors in an animal model. "Our findings suggest we can target this pathway in patients with estrogen-receptor breast cancers who have failed tamoxifen," Ramaswamy says, noting that 30-40 percent of patients taking tamoxifen become resistant to it after about five years. "Our next step is to organize a clinical trial to evaluate vismodegib in patients with tamoxifen-resistant breast cancer."



Pravin Kaumaya, PhD



Tanios Bekaii-Saab, MD



William Carson III, MD



Kami Maddocks, MD



Sarmila Majumder, PhD



Bhuvanewari Ramaswamy, MD

Recruitment and Retention

Funds raised by Pelotonia have been committed to recruiting or retaining some of the brightest minds in cancer research. Among those recruited with the help of Pelotonia dollars in 2012 are:



DAVID CARBONE, MD, PHD, an internationally renowned lung cancer authority who will develop and lead a new Thoracic Oncology Center at the OSUCCC - James. The Center will bring together physicians and scientists to develop targeted approaches to treating lung cancer. Carbone is an expert in the molecular genetics of lung tumors, which includes understanding the cells and genetic markers in each patient's cancer and developing treatments and drugs that target specific tumor cells. He comes to Ohio State from Vanderbilt University, where he was a professor of medicine and cancer biology and directed the Experimental Therapeutics Program, and then the Thoracic and Head and Neck Cancer Program, at the Vanderbilt-Ingram Cancer Center. He also led the Thoracic Oncology Program at Vanderbilt.



PAUL GOODFELLOW, PHD, a professor of Obstetrics and Gynecology and a member of the Molecular Biology and Cancer Genetics Program at the OSUCCC - James. Goodfellow's research focuses on understanding the role that loss of DNA mismatch repair plays in tumor initiation and progression, and on understanding molecular events that can be used to develop approaches to preventing and treating endometrial (uterine) and breast cancers. He was recruited from Siteman Cancer Center, Barnes Jewish Hospital, at the Washington University School of Medicine in St. Louis, Mo., where he was professor of surgery, of genetics, and of obstetrics and gynecology. He led a Specialized Program of Research Excellence (SPORE) in Endometrial Cancer and co-directed the Hereditary Cancer Core at Siteman Cancer Center.



SAMEEK ROYCHOWDHURY, MD, PHD, an assistant professor in the Department of Internal Medicine's Division of Medical Oncology, and also in the School of Biomedical Science's Department of Pharmacology. Roychowdhury's clinical research focuses on personalized approaches to patient treatment through genomics. He was recruited from the University of Michigan, where from 2006 until earlier this year he had consecutively completed an internal medicine residency, a clinical fellowship in medical oncology and a postdoctoral fellowship. He had been a clinical lecturer in the Division of Hematology/Oncology at Michigan since 2011. Roychowdhury earned both his MD and his PhD in immunology at Ohio State, where he also received his undergraduate degree in molecular genetics.

In addition, the faculty recruits listed below will be profiled in an upcoming special Pelotonia edition of *Frontiers* magazine. Watch for it in the spring of 2013.



Theodore Brasky,
PhD

THEODORE BRASKY, PHD

Assistant Professor, College of Medicine
Recruited from Fred Hutchinson Cancer Research Center



Nicholas Denko,
MD, PhD

NICHOLAS DENKO, MD, PHD

Associate Professor, Radiation Oncology
Recruited from Stanford University School of Medicine



John Hays,
MD, PhD

JOHN HAYS, MD, PHD

Assistant Professor, Medical Oncology
Recruited from the National Cancer Institute



Jay Hollick,
PhD

JAY HOLLICK, PHD

Associate Professor, Department of Molecular Genetics
Recruited from University of California, Berkeley



Thomas Ludwig, PhD

THOMAS LUDWIG, PHD

Associate Professor, Department of Molecular and Cellular Biochemistry
Recruited from Institute of Cancer Genetics Columbia University, New York, N.Y.



Susan Olivo-Marston,
PhD, MPH

SUSAN OLIVO-MARSTON, PHD, MPH

Assistant Professor, Epidemiology
College of Public Health
Recruited from the National Cancer Institute