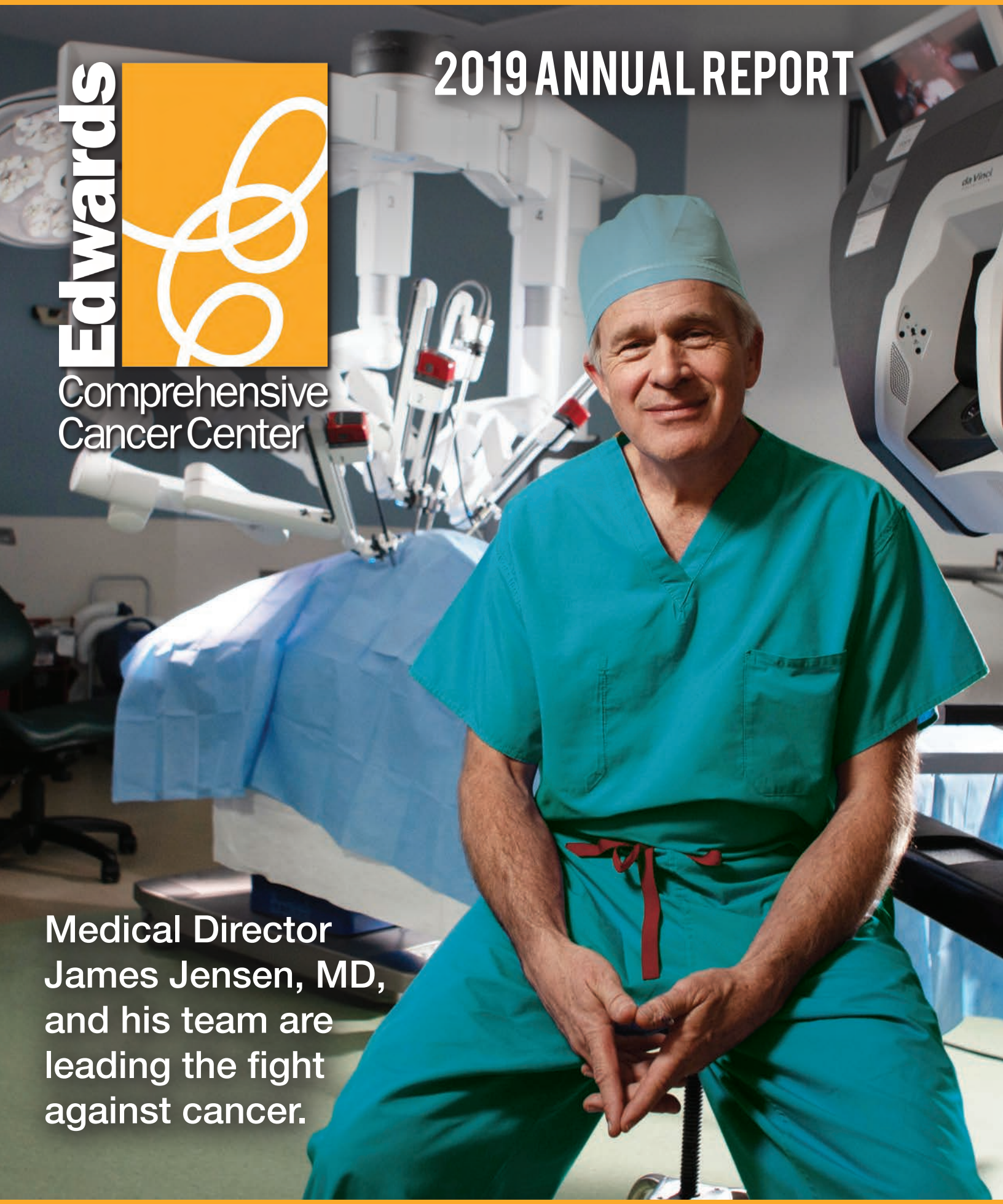
2019 ANNUAL REPORT

Edwards Comprehensive Cancer Center



Medical Director James Jensen, MD, and his team are leading the fight against cancer.

Advancing the Battle Against Cancer

A longtime patient of mine came to see me recently for the first time in five years. Ten years earlier, I had removed his prostate cancer and a small renal cancer and, from all outward appearances, he seemed to have been "cured." He was there to follow up on a scan I had requested after a phone call in which he had expressed concern about a very minor pain in his side. He was afraid, and the fear was palpable in his voice, a reaction that is common among patients who have had cancer. I had my doubts that it was related to his previous cancers and reassured him the best I could. And I was correct. But while his pain wasn't related to either his prostate or renal cancer, sadly the scan revealed that he had Stage IV pancreatic cancer. It was a sobering and difficult visit for him and for me. Like many of my patients over the years, we had become personal friends.

We found out later through the recently developed Genomics Program at the Edwards Comprehensive Cancer Center that he harbored a genetic defect that predisposed him to pancreatic cancer, in addition to prostate and renal cancer. His cancers were related, but at the molecular level. Having the first two actually predicted the development of the third. Had we known this 10 or even five years ago, his routine follow-up would have been far different. We might have identified his pancreatic cancer when it was much less advanced, perhaps nearer its inception, rather than when it had grown large enough to metastasize.

The mechanistic events leading to cancer are now understood in some cases — most cancers have a common theme in loss of genetic elements that impede or retard cancer growth. For instance, we are able to identify genetic defects that predispose some patients to breast cancer. And, it appears that this defect can be identified in other forms of cancers as well. As other genes are being identified though advances in medical science, we are now able to analyze large groups of patients who may be at risk for pancreatic, breast, colon, kidney, prostate and bladder cancer.

Even more encouraging, there are now genetic treatments that did not exist only a few short years ago. These are very exciting developments at the Edwards Comprehensive Cancer Center.

Thus, when asked what the theme should be for this year's annual report, I enthusiastically suggested that we focus on the new genomic analyses that are allowing us to make major strides in the fight against cancer. Our hope is that we can apply new genetics-based treatments to patients who are at risk for developing cancer before metastasis occurs.

Also in this year's annual report, we will update the community on advances in the treatment of lung cancer and lung disease, including:

- Developments in robotic lung lobectomy surgery to target a tumor in the lungs during the early stages of lung cancer; and
- The use of the *Zephyr Endobronchial Valve* that significantly improves lung function, exercise capacity and quality of life for patients with advanced lung disease.

Finally, we share new research we are conducting, including the tart cherry clinical trial, as well as the effects of obesity on breast cancer.

All of this leading-edge work is the result of the Edwards Foundation, established in 1991 by Joan C. Edwards. The Foundation and its initial grant continue to have a major positive effect on the health of this community. We owe the Edwards family and the Edwards Foundation an enormous debt of gratitude for this generosity and dedication to the health of our community. Without them, we wouldn't have the physicians, researchers, scientists and technology to continue our fight against cancer … and to win it!

James Jensen, MD
Medical Director,
Edwards Comprehensive Cancer Center
Professor and Chair, Depts. of Oncology and Urology
Marshall University Joan C. Edwards School of Medicine

ABOUT THE COVER: James Jensen, MD, is the Medical Director of the Edwards Comprehensive Cancer Center.

Genetic Testing

Simple test shows if patient has a *hereditary* cancer risk

Cancer is caused by the uncontrolled growth of abnormal cells, a process triggered by mutations in the cells' genes. As these cells multiply, they cluster together to form tumors or crowd out healthy cells in the bloodstream. People in some families have what is known as hereditary cancer syndrome, a cancer risk that runs in the family.

"Genetic testing can determine if a patient has a hereditary cancer risk," said Lisa Muto, DNP, WHNP-BC, APNG, OCN, an advanced nurse practitioner who directs the Hereditary Cancer Risk Assessment Program at the Edwards Comprehensive Cancer Center.

Muto said patients seeking genetic testing are first asked to fill out a questionnaire about their personal and family history of cancer. This information will determine whether they are a candidate for genetic testing.

The following are some indications of a hereditary cancer risk:

- **Family member who has a known inherited gene mutation**
- **Breast, colon or uterine cancer diagnosed under the age of 50**
- **Ovarian or pancreatic cancer diagnosed at any age**
- **Two or more close family members who have had the same type of cancer**
- **The same type of cancer in several generations of the family**

"What we're looking for," Muto explained, "is a genetic mutation or change in a patient's DNA that might increase their risk for certain cancers. If we know such a change is there and is placing them at increased risk, then it might change what we would recommend for them. We might urge a patient to see their doctor every six months rather than once a year. Sometimes it might prompt a recommendation for preventive surgery. Many of the women who have certain mutations decide to undergo a double mastectomy. That doesn't reduce their risk to zero, but does reduce it significantly."

The testing, she said, "enables us to either find a cancer earlier, when it's more curable, or determine whether preventive surgery may be an option."

"We're now doing what's called 'multi-gene panel testing,' which enables us to test for multiple genes at the same time," she said. "So we might find mutations that can cause an increased risk in colon cancer, uterine cancer or melanoma."

Muto noted that the American Society of Breast Surgeons recommends that all women diagnosed with breast cancer should be offered genetic testing. Before the new guidelines were issued, women had to be either diagnosed under age 50, or they had to be deemed high risk because they had multiple family members with breast, pancreatic or ovarian cancer.

Genetic testing doesn't just benefit women. "Any man diagnosed with breast cancer or aggressive prostate cancer is an automatic candidate for genetic testing. No family history of cancer is required for them," Muto said.

The simple blood test requires only a tablespoon of blood. The blood is drawn at Cabell Huntington Hospital and then sent out to a lab. The results are generally available in three to four weeks.

"A patient newly diagnosed with breast cancer may also need an MRI. In addition, she'll need to see the radiation oncologist, the medical oncologist and maybe her family doctor for surgical clearance. By the time she has completed her appointments, we generally have the testing results back," Muto said.

When people call to schedule an appointment, the thing they worry about the most is cost, but according to Muto, most insurance plans cover 100 percent of the cost.

Many people also worry about losing their insurance if they test positive for a mutation. The Genetic Information Nondiscrimination Act of 2008 (GINA) is a federal law that protects individuals from discrimination on their genetic information in both health insurance and employment.

For more information about genetic testing, call the Edwards Comprehensive Cancer Center at 304.399.6500. ■

CLINICAL TRIALS

The *forefront* of cancer care

Clinical trials are important components in the fight against cancer, and patients at the Edwards Comprehensive Cancer Center (ECCC) have access to several trials on the forefront of cancer care.

The LUNG-MAP trial, a nationwide trial sponsored by the National Cancer Institute, is the culmination of years of cancer research and lung cancer treatment, said ECCC Oncology Research Supervisor Barb Payne, RN, OCN, CCRP. Patients participating in the trial are screened for genetic changes or mutations that can exist in cancer tissue, then are assigned to a study that best fits the screening results.

"After decades of research, we are learning more about what causes healthy cells to turn into cancer cells," Payne said. "All cancers are caused by damaged genes, and the LUNG-MAP clinical trial looks at 200 cancer-related genes for genomic alterations. Based on the results of the screening, patients are assigned to treatment that best suits their genomic profile, if one is available."

The trial improves the patient's likelihood of receiving a drug targeted at the genetic profile of their particular tumor, Payne said.

In addition to the trial by the National Cancer Institute and the Children's Oncology Group, patients at the ECCC have access to industry-sponsored and investigator-initiated trials that range from promising new therapies and prevention strategies to trials that seek to alleviate the side effects of cancer treatment.

Maria Tria Tirona, MD, FACP, director of medical oncology at the ECCC and professor of medicine and section chief in the Department of Hematology/Oncology at the Marshall University Joan C. Edwards School of Medicine, concluded a study in August 2018 that resulted in a new strategy for reducing the side effects of aromatase inhibitors in patients with breast cancer.

"Aromatase inhibitors are a standard treatment for hormone receptor-positive breast cancer in postmenopausal women," Dr. Tirona said. "These treatments can help prevent a return of the disease by blocking the effects of estrogen, but a common side effect of the treatment is joint and muscle pain."

When Dr. Tirona discovered that drinking a small amount of tart cherry juice following a workout reduced muscle soreness, she began suggesting that her breast cancer patients drink an ounce of tart cherry juice a day. More than half reported positive outcomes, and Dr. Tirona initiated a clinical trial to further study the juice's effects with hematology-oncology fellow Mina Shenouda, MD, who was the trial's principal investigator.

> BARB PAYNE:
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> **Clinical trials are the gold standard in cancer care, and we're proud to provide a full range of trials at the ECCC that are equal to what you'd find at the nation's largest cancer centers.**

With a grant from the Cherry Marketing Institute, Dr. Tirona enrolled 60 patients in a randomized, placebo-controlled, double-blind trial, which returned positive results in decreasing pain and soreness. The Conquer Cancer Foundation of the American Society of Clinical Oncology (ASCO) awarded Dr. Shenouda with a Merit Award for the trial, titled "Effect of Tart Cherry on Aromatase Inhibitor-Induced Arthralgia in Non-Metastatic Hormone Positive Breast Cancer Patients."

"An entire team of medical oncologists, nurses, physician assistants and clinical trial personnel at the ECCC contributed to the success of this clinical trial," Dr. Tirona said. "We are honored to be recognized by such a prestigious group for our results."

The ECCC is continually researching new treatment options and ways to improve care for patients, and clinical trials are a vital aspect of that mission, Payne said.

"Clinical trials are the gold standard in cancer care, and we're proud to provide a full range of trials at the ECCC that is equal to what you'd find at the nation's largest cancer centers," she said.

For a complete list of clinical trials available at the ECCC, visit www.edwardsccc.org. ■

Advances in Lung Cancer

The lobectomy is at the *leading edge* of cancer care

Lung cancer treatment at the Edwards Comprehensive Cancer Center (ECCC) has advanced dramatically in the past few years, particularly for patients who require surgery.

Previously, lung surgery required an 8- to 10-inch incision. Today, with the addition of thoracic robotic surgery, a minimally invasive approach that requires just three or four dime-sized incisions, patients experience a shorter recovery period with less pain and blood loss, and fewer complications.

"Thoracic robotic surgery utilizes telemanipulation transfer technology as an advanced laparoscopic platform," said Mark Cooper, MD, PhD, a board-certified, fellowship-trained thoracic surgeon who joined the center four years ago. "It is especially helpful in reducing patient length of stay and post-operative pain while promoting a healthier recovery. It can allow pulmonary lobectomy and accurate localization of small nodules and limited resection, thus conserving lung tissue."

Lungs have five lobes, three on the right and two on the left, and a lobectomy removes one of them entirely. The more tissue that can be conserved during this process, or during smaller procedures, the more quickly patients can return to their lives.

Cooper and his team perform pulmonary lobectomy surgeries with the *da Vinci® S HD Surgical System*, and the advancements address a critical need. With lung cancer being the leading cause of cancer death for both men and women in the United States, and with 225,000 Americans diagnosed with lung cancer annually, the need for such improvements to treatment is great. The American Cancer Society estimated 2,010 new cases of lung/bronchus cancer in West Virginia alone for 2019, claiming 1,360 lives.

The ECCC's recruitment of Cooper has been part of its effort to combat this trend. He has 30 years of experience practicing surgery in both the United States and England and, in 2016, joined the cancer center and the Marshall University Joan C. Edwards School of Medicine faculty, serving as an assistant professor in the Department of Surgery. He earned a medical degree from the University of Leeds in England and completed his general surgery residency at Texas A&M University and cardiothoracic surgery residency at the University of Wisconsin. Cooper completed a fellowship in transplantation at the University of Pittsburgh with the late Dr. Thomas Starzl, who was renowned for surgical innovations involving organ transplants.

Here in Huntington, Cooper and the Marshall Surgery team are integrally involved with both the thoracic surgical aspects of lung cancer care and providing care for esophageal cancer patients.

"The Department of Surgery is also involved in the diagnosis and staging evaluation of lung cancer patients," Cooper said. "This is through new techniques, such as navigational bronchoscopy and biopsy, and also staging of the mediastinum through endobronchial ultrasound. These procedures are outpatient and provide rapid analysis of patient disease."

Navigational bronchoscopy involves using a bronchoscope — a thin tube with a camera — to reach through the nose or mouth and into the airways of the lungs to examine and diagnose conditions.

"Navigational bronchoscopy may also be used to place fiducial markers near lung cancer areas, which allows better targeting when non-operative patients have radiation therapy," Cooper said.

The Department of Surgery screens lung cancer patients and tests lung nodules that are found on screening studies.

"We can offer a complete thoracic screening service to patients who may be heavy smokers or who have a family history of lung cancer," Cooper said.

The new technologies allow the ECCC to offer advanced techniques for the diagnosis and minimally invasive treatment of lung cancer and other ailments. The ECCC team is saving lives and providing tools for faster recovery so patients throughout the region can get back to making each day count. ■

Advances in Lung Care

The *Zephyr Valve System®* used to treat emphysema

Cabell Huntington Hospital is the first hospital in the state of West Virginia to offer treatment for emphysema with the *Zephyr Valve System®*, a minimally invasive therapy for better lung function and exercise tolerance without the need for surgery.

Emphysema is a severe form of chronic obstructive pulmonary disease (COPD). It causes abnormal, permanent enlargement of the air spaces at the ends of the bronchioles, accompanied by the destruction of their walls. Most emphysema is caused by smoking. The initial symptom of emphysema is shortness of breath (dyspnea). A cough might also be present, as chronic bronchitis often precedes emphysema. As the disease progresses, even a short walk can result in difficulty breathing.

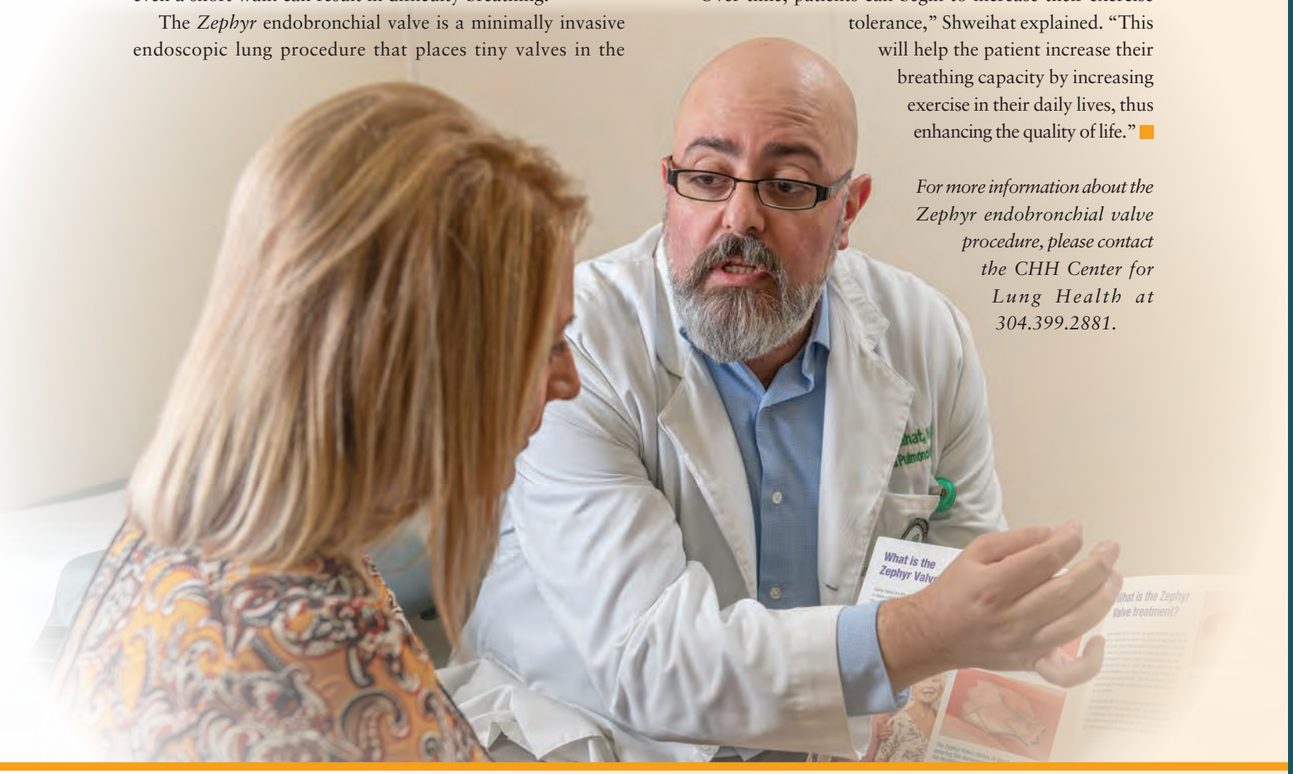
The *Zephyr* endobronchial valve is a minimally invasive endoscopic lung procedure that places tiny valves in the airways of the lungs to allow the healthier parts of the lungs to expand, thereby lifting pressure off the diaphragm and helping emphysema patients breathe more easily.

"This is truly a breakthrough to help patients improve their quality of life and breathe easier," said Yousef Shweihat, MD, interventional pulmonologist at Cabell Huntington Hospital's Center for Lung Health and associate professor in the Department of Internal Medicine at the Marshall University Joan C. Edwards School of Medicine.

The effects of the *Zephyr* endobronchial valve take place immediately, allowing patients to take deeper breaths than they could before.

"Over time, patients can begin to increase their exercise tolerance," Shweihat explained. "This will help the patient increase their breathing capacity by increasing exercise in their daily lives, thus enhancing the quality of life." ■

For more information about the Zephyr endobronchial valve procedure, please contact the CHH Center for Lung Health at 304.399.2881.



Oct. 24, 2019, was an important milestone at the Edwards Comprehensive Cancer Center. That is the day James C. Jensen, MD, FACS, board-certified urologic oncologist, was named the Medical Director of the Edwards Comprehensive Cancer Center (ECCC).

Now Jensen oversees the medical leadership structure and clinical operations of the ECCC. Each year, the center receives over 100,000 patient visits and is home to more than 120 dedicated medical, surgical and radiation oncologists, nurses, medical assistants and other personnel.

"Dr. Jensen has contributed to many ECCC milestones in clinical trials, research projects, new technologies and clinical protocols and has been instrumental in the center's tremendous growth," said Kevin Fowler, president of Cabell Huntington Hospital. "He provides strong leadership as we continue to build on our excellent reputation as a regional destination for cancer care."

Jensen, having performed nearly 2,000 procedures using the *da Vinci® Surgical System*, is one of the most experienced robotic surgeons in the nation. He specializes in robotic surgery for malignant, as well as benign, conditions of the adrenal gland, kidney, bladder, prostate and other associated organs. He and his team have represented the ECCC and Marshall University at numerous national and international conferences, presenting their work in robotic surgery for renal preservation in kidney cancer; robotic treatment of benign prostatic hyperplasia (BPH); and robotic reconstruction of the urinary tract in the treatment of ureteral cancer, bladder cancer and non-urological cancers such as endometrial, ovarian, and cervical cancer.

Jensen is a member of the American Urological Association, a diplomat of the American Board of Urology and a fellow of the American College of Surgeons. He is a member of numerous professional organizations and is designated as a Surgeon of Excellence by the Surgery Review Council.

He is a Magna Cum Laude graduate of the University of Utah and member of the Phi Beta Kappa National Honors Society. He received his medical degree from the University of Chicago Pritzker School of Medicine and completed his residency in urology at the University of California Medical Center in Los Angeles. Jensen completed his fellowship in urological oncology in the surgery branch of the National Cancer Institute in the National Institutes of Health, Bethesda, Maryland.

Jensen is the professor and chair of the Departments of Oncology and Urology at the Marshall University Joan C. Edwards School of Medicine. He joined the medical staff at Cabell Huntington Hospital in 2006, founding the urological oncology program at the ECCC. Jensen previously served as the interim medical director of the ECCC. ■

Our **New** Medical Director

Experience, leadership and *milestone* achievements

have marked the career of Dr. James C. Jensen

Obesity and Cancer

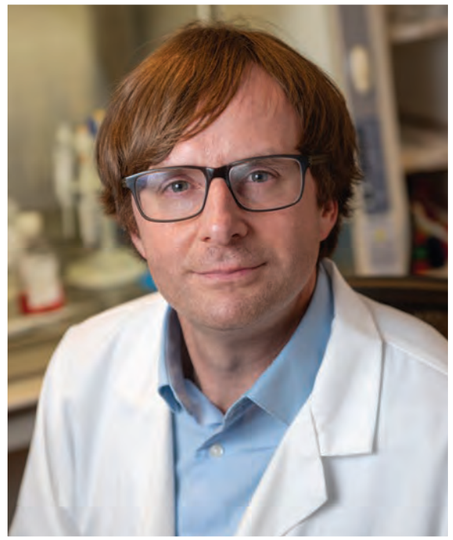
Link between obesity and cancer could yield *new treatment* tools

Epidemiological reports have shown that obesity increases human risk for several types of cancers, especially breast cancer, but no one is sure why.

Finding the answer to that question is the work of Marshall University researcher Travis Salisbury, PhD, an associate professor of biomedical sciences at the Marshall University Joan C. Edwards School of Medicine.

A Cleveland native, Salisbury earned his PhD at Kent State University, and then completed post-doctoral work in molecular biology, specifically focusing on the pituitary gland, at Case Western School of Medicine in Cleveland and later at Washington State University.

"When I was at Washington State, the main focus of my research was studying mechanisms of gene regulation," Salisbury said. "That is, how genes get turned on and turned off."



Travis Salisbury, PhD, associate professor of biomedical sciences in the Joan C. Edwards School of Medicine

When he came to Marshall in 2009, his focus changed.

"I'm still studying the mechanisms of gene regulation, but we've shifted from studying one or two genes at a time to studying what we call genome-wide changes in gene expression," he said. "One way of thinking about it is that we went from a very narrow focus to a broader approach.

"At the same time, we began to investigate breast cancer. It might seem strange to go from the pituitary to breast cancer, but really it's not. The pituitary gland is regulated by hormone signaling, and up to 70 percent of breast cancer is also regulated by hormone signaling."

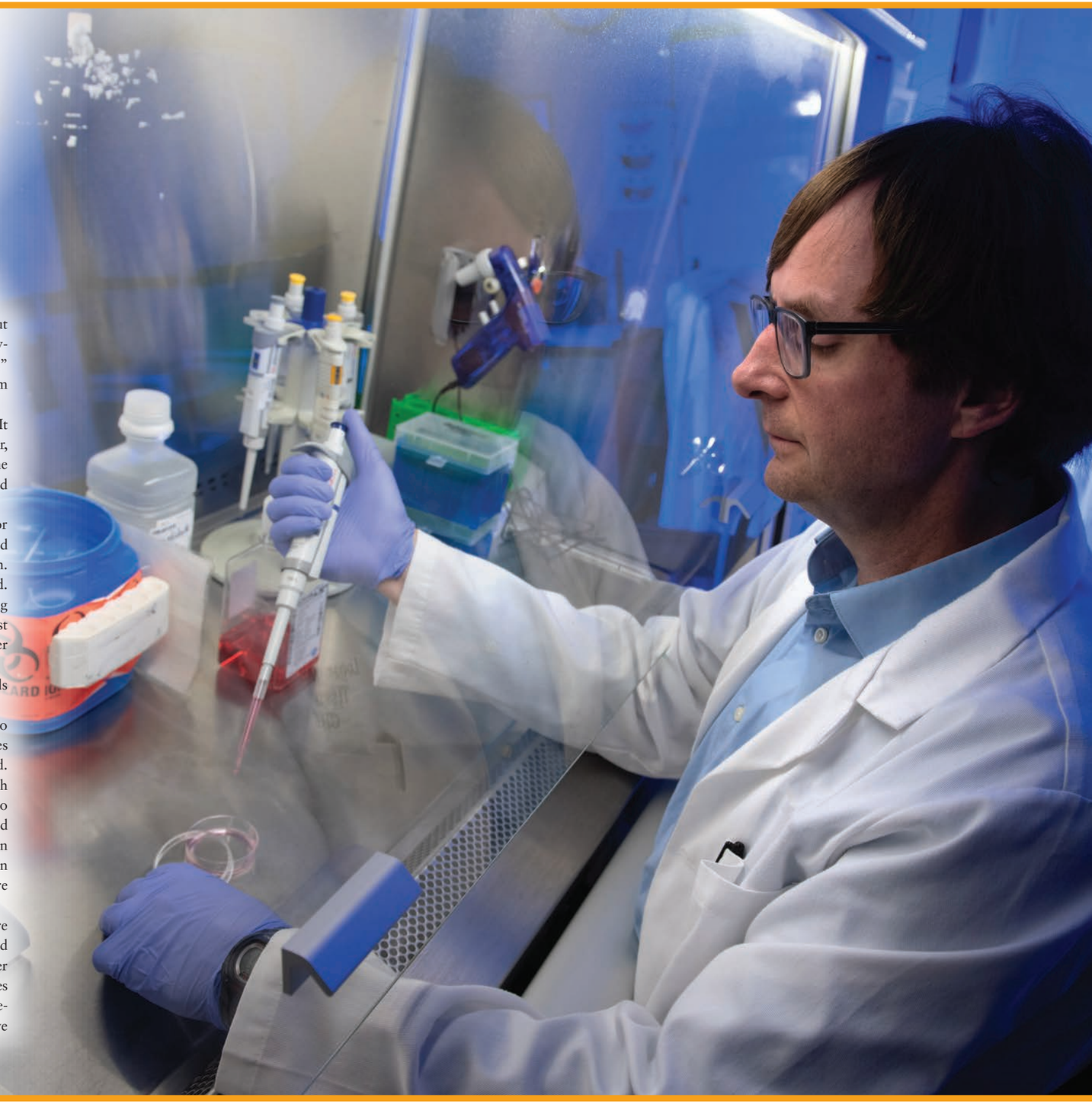
Salisbury pointed to two landmark studies, published 10 or more years ago, that showed that women who were obese had a higher risk of dying from breast cancer than did lean women.

"We're trying to investigate why that's the case," he said. "If we can find why that happens, we can think about targeting the cancer with existing drugs that aren't now used for breast cancer or designing new drugs that can be used to treat cancer in the context of obesity."

Salisbury and his team work closely with the Edwards Comprehensive Cancer Center.

"A grant from the Edwards Foundation allowed us to begin investigating a little bit closer how obesity increases the risk of breast cancer, at least on a genomic level," he said. "We obtained adipose tissue from the cancer center — with patient consent, of course — and we allowed that tissue to secrete factors. We collected those factors and then applied them to breast cancer cells that are growing in petri dishes in an incubator. That's allowing us to investigate the changes in the types of genes that the factors from the adipose sites were inducing in breast cancer cells."

"Working in collaboration with the cancer center, we're obtaining clinical samples from patients who are interested in participating not only in the research we do, but in cancer research in general," he said. "We're then taking those samples and applying large-scale genomics and large-scale proteogenomics to really understand what's going on. That's where we are right now." ■



edwardsccc.org

No other program in the region has a more complete range of academically affiliated medical, surgical and radiation oncologists providing comprehensive, highly specialized cancer services for both adults and children.

Edwards Comprehensive Cancer Center at Cabell Huntington Hospital – where knowledge meets hope.

Mohamed Alsharedi, MD
Medical Oncologist

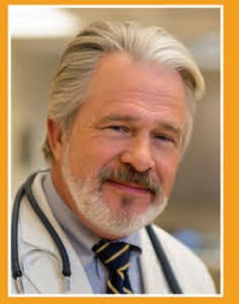
Nadim Bou Zgheib, MD
Gynecologic Oncologist

Felix Cheung, MD
Orthopedic Oncologist

Grace Dixon, MD
Radiation Oncologist

Jennifer Dotson, DO
Medical Oncologist

Paul Finch, MD
Pediatric Oncologist/ Hematologist



James C. Jensen, MD
Urologic Oncologist
Medical Director

Mary Legenza, MD
Breast Surgeon

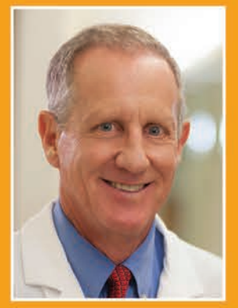
Scott Mitchell, MD
Palliative Care

Yousef R. Shweihat, MD
Director of interventional pulmonology and lung nodule/cancer

Muhammad Omer Jamil, MD
Medical Oncologist/ Hematologist

Toni Pacioles, MD
Medical Oncologist/ Hematologist

Maria Tria Tirona, MD
Medical Oncologist



Jack R. Traylor, MD
Breast Surgeon

Edwards Comprehensive Cancer Center
CabellHuntington Hospital

304.399.6500
www.edwardsccc.org

MARSHALL UNIVERSITY
Joan C. Edwards School of Medicine

Pride in Quality Care

A focus on *accountability* and *quality* improvement

Cancer Registry Manager Phyllis Edwards says the ECCC staff is consistently seeking to exceed benchmarks in patient care.

The Edwards Comprehensive Cancer Center (ECCC) strives to provide consistent top-quality care to all patients. And it shows in the results of a recent survey by the American College of Surgeons Commission on Cancer (ACSCC), which is designed to measure the effectiveness of the ECCC's accountability and quality improvement measures.

"As a participant in the Commission on Cancer, we develop action plans for any areas where we can improve," Phyllis Edwards, cancer registry manager, said. "I'm proud to work for a hospital that puts so much work into caring for patients and making sure they receive the best treatment in a timely manner."

ECCC staff routinely seeks to exceed benchmarks in patient care and provides appropriate data to support the high-quality initiatives of the ACSCC. "We were well over the standards on most of the results," Edwards said. "Staff welcome the opportunity to rethink how to do things to improve care for patients."

For more information about quality care at the ECCC, visit www.edwardsccc.org or call 304.399.6500. ■

STANDARD 4.4 ACCOUNTABILITY MEASURES
2019 CP³R PERFORMANCE MEASURES
CANCER REGISTRY DATA

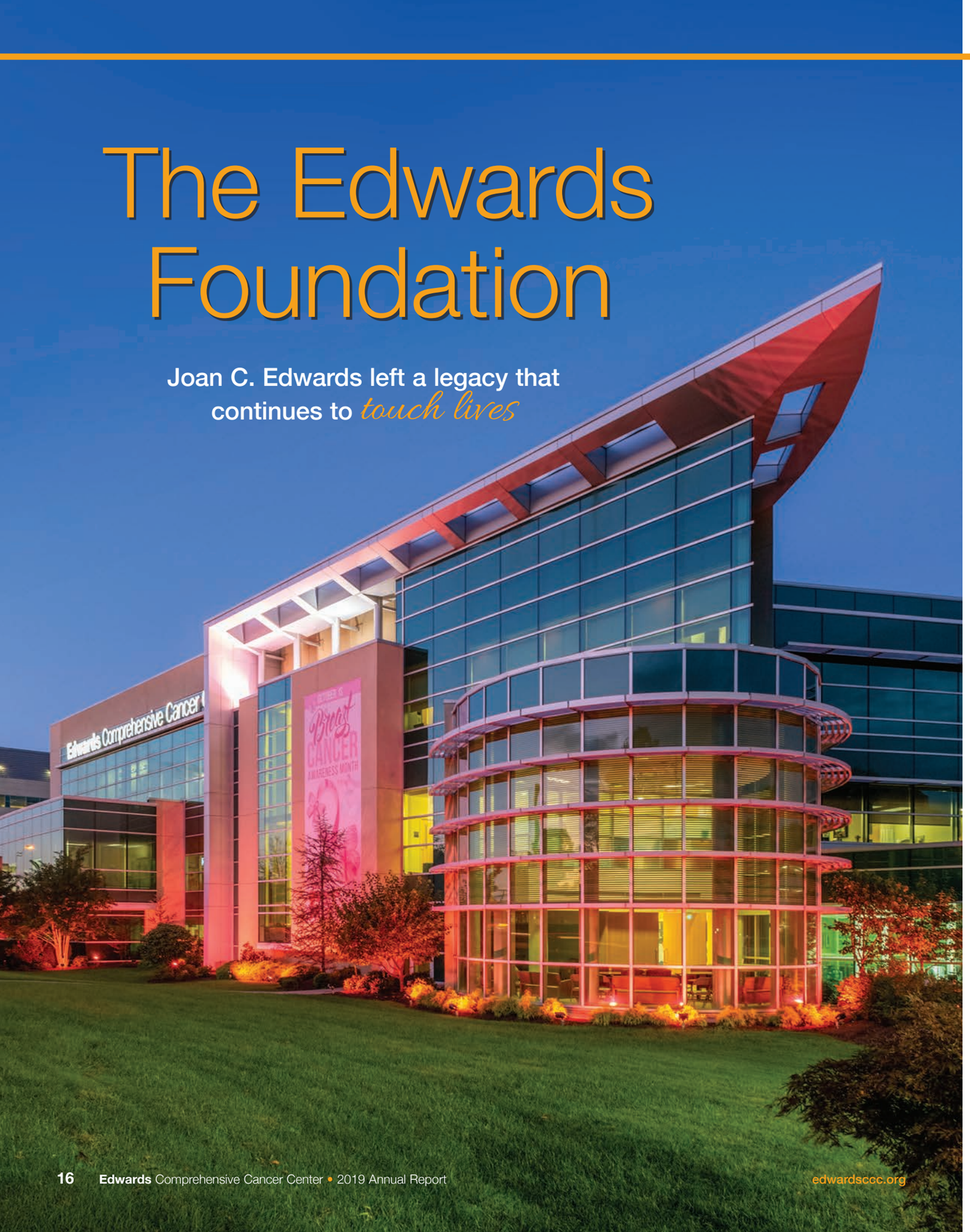
Cabell Huntington Hospital/Edwards Comprehensive Cancer Center Accountability and Quality Improvement Performance Rates (CP³R)

Primary Site	Measure Specifications	COC Standard (Benchmark)	Estimated Performance Rate (EPR) 2018
Breast	**BCSRT** – (Accountability) Radiation is administered within 1 year (365 days) of diagnosis for women under the age of 70 receiving breast conservation surgery for breast cancer	90%	99%
	HT – (Accountability) Tamoxifen or third generation aromatase inhibitor is considered or administered within 1 year (365 days) of diagnosis for women with AJCC T1c or Stage II or Stage III hormone receptor positive breast cancer	90%	98%
	MAC – (Accountability) Combination chemotherapy is considered or administered within 4 months (120 days) of diagnosis for women under 70 with AJCC T1c or Stage II or III hormonal receptor negative breast cancer	**n/a**	93%
	MASTRT – (Accountability) Radiation therapy is considered or administered following any mastectomy within 1 year (365 days) of diagnosis of breast cancer for women with greater than or equal to four positive regional lymph nodes	90%	100%
Colon	**ACT** – (Accountability) Adjuvant chemotherapy is considered or administered with 4 months (120 days) of diagnosis for patients under the age of 80 with AJCC Stage III (lymph node positive) colon cancer	n/a	100%

References: American College of Surgeons/Commission on Cancer-CP³R

The Edwards Foundation

Joan C. Edwards left a legacy that continues to *touch lives*



The late Joan C. Edwards (1918-2006) had a long and influential history as a powerful philanthropic force in Huntington, where she lived a great portion of her life with her husband, James F. Edwards, known to his family and many friends as "Jimmy."

Jimmy Edwards died in 1991 at age 81. Shortly after his death, his wife of 54 years called a press conference and announced that, as part of his will, she was presenting millions of dollars to Marshall University and a long list of community organizations.

And that was just the start. Joan Edwards established the Edwards Foundation and not only carried out the generous bequests spelled out in her late husband's will, but also donated millions more of her own money to Marshall and other recipients.

"Jimmy wanted to leave something behind," she said. "I want to continue what he started."

One vision Jimmy Edwards had was of another cancer center in Huntington. That vision became a reality with the opening in January 2006 of the Edwards Comprehensive Cancer Center, created by three partners — Cabell Huntington Hospital, Marshall's Joan C. Edwards School of Medicine and the Edwards Foundation.

Today, the center is jointly directed by Cabell Huntington Hospital and the School of Medicine.

Within the three-story, 70,000-square-foot facility is the James F. Edwards Adult Cancer Clinic, which includes an adult oncology center with infusion stations, exam rooms, consultation rooms, minor procedure rooms, a diagnostic breast center and physician offices. The cancer center is also home to the Joan C. Edwards Children's Cancer Clinic, which includes the children's oncology/hematology treatment center with infusion stations, pediatric oncology clinics and physician offices. The children's clinic is designed to create a child-friendly environment combining light, color and children's motifs.

The center serves cancer patients from throughout the Tri-State region — southwestern West Virginia, southern Ohio and eastern Kentucky.

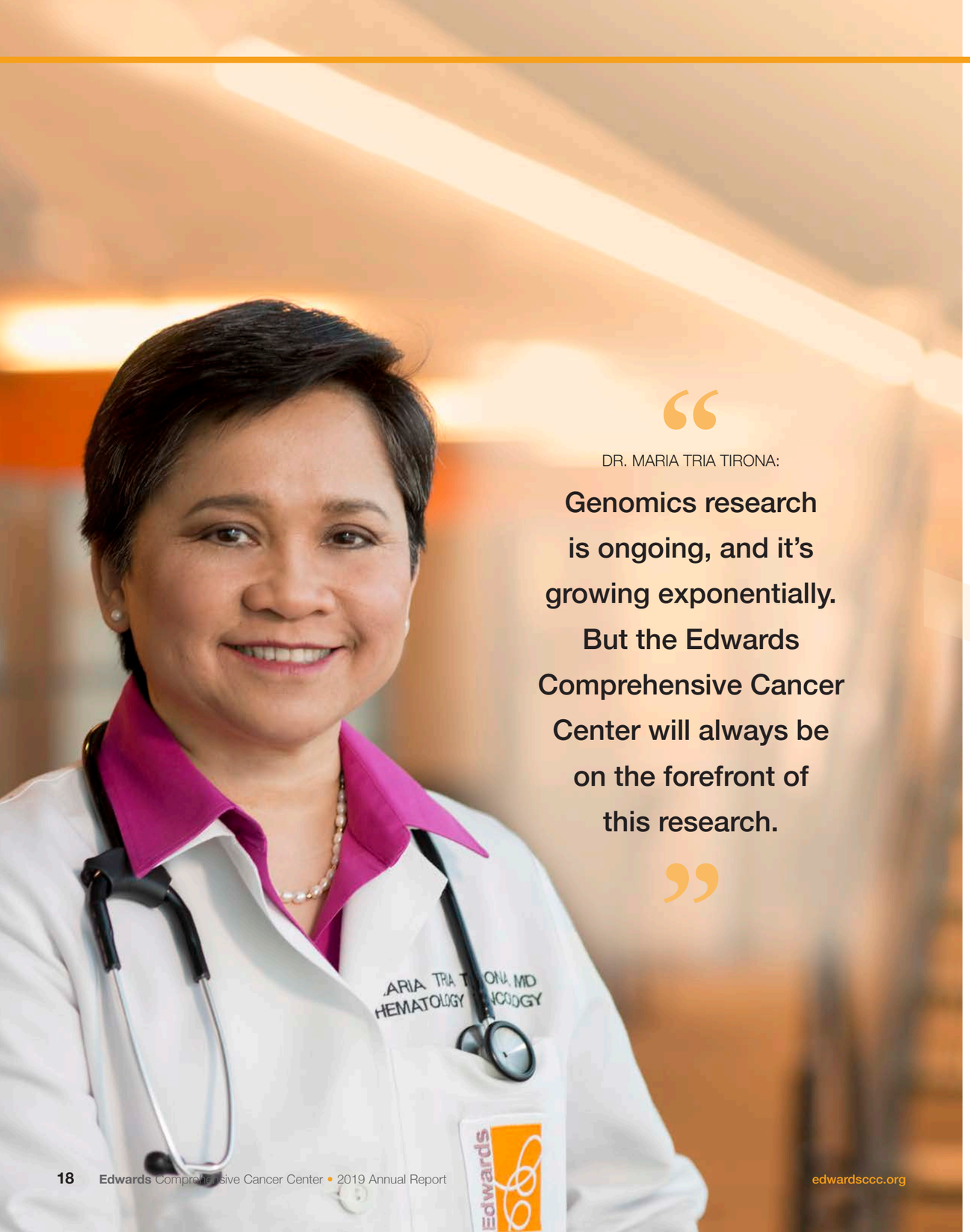
Brent Marsteller, retired president and CEO of Cabell Huntington Hospital, is now president of the Edwards Foundation. During his tenure at the hospital, he worked closely with Joan Edwards in creating the cancer center.

"Joan Edwards was truly a special person, one with a remarkable grasp of the region's medical needs," said Marsteller. "She not only contributed many, many millions of dollars to help construct the cancer center; she left the foundation a $16 million endowment. Today, we're able to use the income from that endowment to provide research grants to physicians involved in the fight against cancer and fellowships that enable physicians to further their training."

> BRENT MARSTELLER:
>
> **"Today, we're able to use the income from that endowment to provide research grants to physicians involved in the fight against cancer and fellowships that enable physicians to further their training."**

Joan Edwards died on May 7, 2006. Now, her legacy lives on at the ECCC and in the continuing work of the Edwards Foundation. ■

Brent Marsteller, president of the Edwards Foundation



Leading the Way in Genomics

Decades of research in genomics and genetics have greatly improved breast cancer care and outcomes. And for patients throughout the region, the Edwards Comprehensive Cancer Center (ECCC) continues to lead the way.

"The field of genomics is growing exponentially, and we're proud to offer our patients what is being offered at most major cancer centers in the United States." said Maria Tria Tirona, MD, FACP, director of medical oncology at the ECCC and professor of medicine and section chief in the Department of Hematology/Oncology at the Marshall University Joan C. Edwards School of Medicine.

At the ECCC, genomic tests are used to analyze a patient's tumor to see how active certain genes are. Treatment is then tailored based on the results.

"Genomic assays can show us how aggressive a cancer is, whether the patient is at a high or low risk for recurrence and whether or not chemotherapy is the best option for treatment," Tirona said. "We're able to tailor treatment based on each patient's genomic fingerprint."

For patients with early-stage breast cancer, the Oncotype DX test analyzes 21 genes in the patient's tumor to estimate the risk of recurrence, as well as whether the patient will require chemotherapy after breast cancer surgery. The MammaPrint test analyzes 70 genes and is also used to assess recurrence risk. Dr. Tirona and other oncologists at the ECCC use the results of these tests to help patients make treatment decisions.

"In the past, chemotherapy was viewed almost as a one-size-fits-all approach to treatment, but new genomics research has shown that chemo is not always the best course of action," Tirona said. "One of the most important things these tests determine is whether a patient can be spared chemotherapy."

Women who previously would have been advised to undergo chemotherapy now have the option to learn whether it is truly needed based on their individual tumor's genomic fingerprint. It's a game-changer, said Tirona, especially for patients with early-stage invasive breast cancer.

"Chemotherapy has saved and continues to save countless lives, but with these tools we're able to recommend it to those who truly need it — and avoid its side effects and toxicity for those who don't," she said.

Genomic testing is also used in prevention and risk assessment, Tirona said. The myRisk Panel genomic test can identify an individual's risk for eight hereditary cancers, including breast cancer, by determining germline mutations know to result in cancer and create appropriate surveillance plan care for them.

And for current patients whose cancer is no longer responding to standard treatment, state-of-the-art, next-generation sequencing (NGS) such as Foundation One, analyzes the cancer's DNA to identify actionable mutations — genetic mutations that are likely to respond to new targeted therapies or clinical trials. At the ECCC, FoundationOne next-generation sequencing matches patients' genomic findings to the most advanced targeted therapies, immunotherapies and clinical trials. The test also identifies therapies that are unlikely to be successful.

Tirona said the field of genomics continues to progress, improving not only cancer treatment but also cancer prevention and quality of life.

"Genomics research is ongoing, and it's growing exponentially," Tirona said. "The Edwards Comprehensive Cancer Center utilizes personalized genomic guided care just like any major cancer centers in the US and Europe. We are proactive in making sure that our cancer patients are getting the newest available genomic directed therapy as soon as they are made available. Patients in our region don't need to travel elsewhere to receive the latest, most advanced cancer care and treatment. They can get that here." ■

Edwards Comprehensive Cancer Center

Celebrations & EVENTS

BREAST CANCER AWARENESS YARN BOMB

Community members gathered at Huntington's Kitchen to crochet and knit pieces to cover the trees in pink blankets in Pullman Square as part of Breast Cancer Awareness Month activities.

CONCERT FOR A CURE

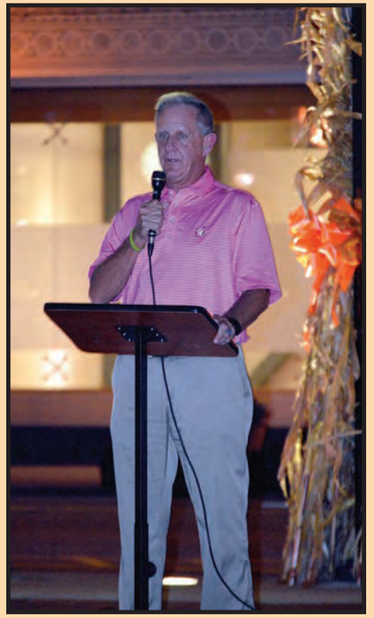
For the second year in a row, cancer survivors and community members attended an outdoor concert. This year featured tribute bands Thunderstruck, an AC/DC cover band, and Resurrection, a Journey cover band. Proceeds from the event benefit patients at both Cabell Huntington Hospital and St. Mary's Medical Center Cancer Centers.

CANCER SURVIVORS DAY

Each year, the Edwards Comprehensive Cancer Center holds an event to celebrate life with patients, survivors and family. The day is filled with stories, food and games for the whole family.

PAINT THE TOWN PINK

Businesses were asked to decorate their store fronts or buildings with pink lights, breast cancer awareness banners or other creative ways to support breast cancer awareness. Hundreds of people met at Pullman Square to kick off Breast Cancer Awareness Month, and hear stories from cancer survivors who beat the disease and credit their loved ones for helping them along their journey. An official lighting ceremony was held in Pullman Square as two breast cancer survivors and their physicians flipped a giant switch, illuminating downtown Huntington, area businesses, Cabell Huntington Hospital, St. Mary's Medical Center, the West Virginia Building and Marshall University.



PINK OUT!

The theme of this year's breast cancer awareness activities was "Stronger Together." Staff at Cabell Huntington Hospital and St. Mary's Medical Center wore pink Oct. 1 to kick off the monthlong celebration. T-shirts were sold for the event. The proceeds benefit cancer patients at both Cabell Huntington Hospital and St. Mary's Medical Center.

It's moments like this that give us the courage to fight.

Cancer doesn't care about purpose or passion. It doesn't yield to responsibilities or celebrations. But if it strikes, patients can have more hope and promise than ever before.

At the **Edwards Comprehensive Cancer Center**, we offer a comprehensive team of specialized physicians, surgeons, researchers, pharmacists and clinicians to care for patients. Our team of surgeons, oncologists and radiation oncologists has specific expertise and experience treating patients.

No other facility in the Tri-State region offers a more complete range of specialized services for both adults and children.

Mary Legenza, MD – Breast Surgeon

Dr. Legenza, a board-certified general surgeon who specializes in the surgical treatment of breast cancer, is the first certified Hidden Scar™ Breast Surgeon in West Virginia and the first hospital in the Tri-State to be recognized as a Center of Excellence for Hidden Scar™ Breast Cancer Surgery. Hidden Scar™ Breast Cancer Surgery is a minimally invasive surgical technique that preserves a natural-looking breast by sparing the nipple, areola and surrounding tissue.

Assistant Professor, Department of Surgery
Marshall University Joan C. Edwards School of Medicine

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