



# 2013 ANNUAL REPORT

## **DYNAMIC LEADERSHIP** *in* CHANGING TIMES



UNIVERSITY  
of MARYLAND

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University of Maryland St. Joseph Medical Center  
University of Maryland Shore Regional Health (*formerly Shore Health and Chester River Health*)

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- University of Maryland Shore Medical Center at Dorchester
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**MEDICAL SYSTEM and  
SCHOOL OF MEDICINE**

## THE POWER OF PARTNERSHIP

**Changes in science, public policy and the economy are reshaping health care in the United States. The University of Maryland Medical System and the University of Maryland School of Medicine are leaders in patient care, medical education and biomedical research. This extraordinary partnership in the hospital, the boardroom, the classroom and the laboratory powers our mission to serve Maryland and beyond, now and into the future.**

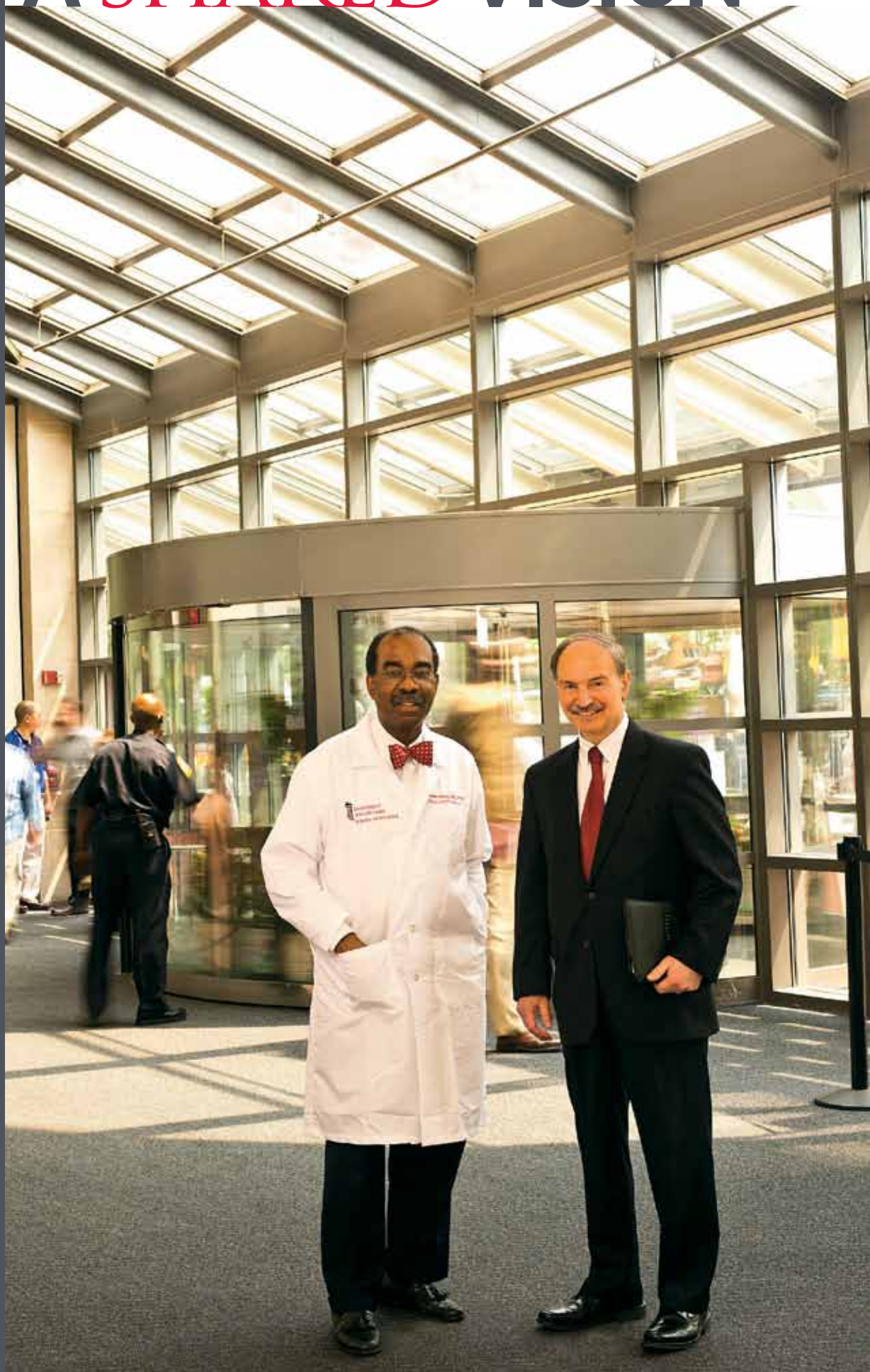


Dynamic leadership happens when **knowledge and innovation walk the same path**, leading change in the right direction.

The dynamic partnership between the University of Maryland School of Medicine and the University of Maryland Medical System grows stronger each year. Together, we have achieved top-tier status, and have become a national leader in clinical and academic medicine and biomedical research. Our success contributes greatly to the well-being of our citizens and the economic health of our nation.

**What distinguishes us is our unwavering commitment to providing the highest quality patient care and service excellence, while remaining committed to academic medicine and educating future health care professionals to work in the communities we serve.**

# A SHARED VISION



## A LETTER FROM CEO ROBERT CHRENCIK AND DEAN E. ALBERT REECE

### FACING THE CHALLENGES HEAD-ON

Challenging times are upon us. We are critically affected by the budget cuts that have dramatically reduced federal support for many key institutions on which we rely for funding. Minimal hospital-rate increases, reduced Medicare payments and federal Sequestration cuts also have forced us to make hard choices. We are not alone in this. This series of adverse actions is experienced by all medical institutions throughout Maryland and the nation.

What sets us apart is how we have chosen to respond to these challenges.

We believe that smart, selective and strategic decision-making positions us for maximum success. In the face of the challenges upon us, we are adapting to a new, more nimble approach that will enable us to thrive in these times.

### THE MEDICAL SYSTEM EXPANDS

In Fiscal 2013, we welcomed our newest member hospital, University of Maryland St. Joseph Medical Center, into the University of Maryland Medical System (UMMS). Several of our existing hospitals also completed the process of adding the University of Maryland brand to their names, making clear their affiliation with our flagship academic medical center, University of Maryland Medical Center (UMMC).

UMMS now provides the capital, fiscal stability and purchasing power of 12 member hospitals employing 23,000 people across Maryland. UMMS member hospitals have a combined total of 2,430 licensed beds and recorded 125,801 patient admissions in Fiscal 2013 — more than any other health care provider in Maryland.

Physicians across the region referred more patients to UMMC this year; Maryland ExpressCare recorded 11,207 physician referrals for urgent patient transfers from community hospitals, a figure that has nearly doubled over the last 10 years. As more health care is shifting to the outpatient setting, UMMS also is increasing the capacity and accessibility of non-hospital-based medical care in communities across Maryland.

UMMC is a hospital of choice throughout the Mid-Atlantic for its expertise in the delivery of time-sensitive critical care for patients with the most serious illnesses and injuries. In 2013, UMMC opened a new Critical Care Resuscitation Unit — modeled after the time-tested concept of its Trauma Resuscitation Unit — to evaluate and stabilize critically ill incoming patients.

We are further distinguished by the intellectual capital of our faculty physicians and researchers from the UM School of Medicine, whose top priority is safe, high-quality care that is patient-centered and patient-friendly. Our faculty physicians provide compassionate, world-class care at several system hospitals in addition to the Medical Center and offer specialty services at more than 20 different locations throughout Maryland.

### A MEDICAL SCHOOL WITH A RICH HERITAGE LOOKS TO THE FUTURE

Founded in 1807, the UM School of Medicine is a preeminent biomedical research institution with more than 2,800 faculty members dedicated to training the next generation of physicians, biomedical research scientists and allied health professionals. Additionally, our continuing medical education programs serve more than 5,000 physicians and other health professionals each year. The University of Maryland founding campus in Baltimore provides our faculty with interdisciplinary collaboration, particularly with the schools of Nursing, Pharmacy, Dentistry and Social Work.

This year the nearly \$2 billion in budget cuts to the National Institutes of Health significantly impacted the biomedical research community. In Fiscal 2013, research grants and contracts totaled more than \$370 million at the UM School of Medicine. According to the Association of American Medical Colleges, we ranked seventh among all 76 public medical schools and 20th among all 140 public and private medical schools nationwide in research grant and contract expenditures.

These statistics show a decline from Fiscal 2012 and could be viewed by some as a reason to find safe harbor and wait for the storm to pass. However, we have decided to implement a series of bold yet realistic initiatives to selectively and strategically take advantage of opportunity in the face of these challenges.

In June, we launched “Shared Vision 2020,” our plan to accelerate the pace and scope of discovery, collaboration, innovation and quality of patient-centered care. We already have seen progress. In September of 2013, we will break ground on the newest biomedical research facility on campus, which will house scientific investigators who are making significant contributions to improving human health and well-being. In November of 2013 we will host the inaugural UM School of Medicine “Festival of Science,” a day-long symposium to highlight the ongoing cutting-edge research throughout the school. This year we will focus on the departments of Surgery and Pharmacology and the Institute of Genome Sciences.

### THE BEST IN PATIENT SAFETY AND QUALITY OF CARE

Of more than 5,000 hospitals reviewed by *U.S. News & World Report*, only 3 percent have even one specialty area ranked in its “Best Hospitals” list. The University of Maryland Medical Center has five: Cancer; Ear, Nose and Throat; Gynecology; Nephrology; and Urology all ranked in the Top 50 nationwide. Our flagship hospital also is one of just two nationwide to make the annual Leapfrog Group Top Hospitals list every year since the award’s inception seven years ago. Leapfrog recognizes hospitals based on patient care outcomes, use of best practices and patient safety initiatives. Our systemwide safety initiatives are built on an advanced information technology platform that supports clinical decision-making and secure sharing of data.

### ADDRESSING CHALLENGES IN HEALTH CARE

Working together, we are dedicating energy and resources to identifying where physician and health care professional shortages exist and working with the community and our hospital partners on solutions. Residents throughout Maryland now have more access than ever to world-renowned transplant specialists, neurosurgeons, cardiologists and pediatricians. For example, cancer and cardiac care services are expanding at Upper Chesapeake Health and University of Maryland St. Joseph Medical Center.

The UM School of Medicine has taken a leadership role in combating health disparities among minorities and lower-income groups. Our faculty served on the Maryland Health Disparities Workgroup, convened by Lt. Gov. Anthony Brown, whose recommendations led to passage of the Maryland Health Improvement and Disparities Reduction Act of 2012 and establishment of health enterprise zones (areas that will receive special incentives to reduce inequalities in health care) across the state. The Workgroup’s innovative approaches were published in the July 17, 2013, issue of the *Journal of the American Medical Association*.

### FINANCIAL PERFORMANCE AND ECONOMIC IMPACT

Despite the fiscal challenges faced by the health care industry nationwide, the Medical System and School of Medicine continued to demonstrate strong financial performance through responsible stewardship across our organizations. In Fiscal 2013, the Medical System generated \$3 billion in annual revenue and nearly \$4.9 billion in economic activity. With almost \$1 billion in additional revenue derived by the School of Medicine and the faculty physician practices, our combined organizations produced more than \$6 billion in economic activity for our region. The Medical System also maintains an A2 bond rating from Moody’s Investors Service, an A from Fitch Investors Service and an A- from Standard & Poor’s.

### LEADERSHIP IN AN ERA OF CHANGE

We have sustained our level of leadership by adopting a goal-oriented, aggressive and strategic approach to maximizing our resources and expertise. In the pages ahead, we have highlighted select examples of the compassionate patient care, exciting discoveries and educational excellence that result from the collaboration between UMMS and the UM School of Medicine.



**E. Albert Reece, MD, PhD, MBA**

Vice President for Medical Affairs, University of Maryland  
& Dean, University of Maryland School of Medicine



**Robert A. Chrennik, MBA, CPA**  
President and Chief Executive Officer  
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*The University of Maryland School of Medicine is facing a true “leadership moment” at this time in our history. We are confronted with unprecedented challenges. We have a greater need than ever to be more creative, more resourceful, more efficient and more strategic in everything we do. I am confident that we will successfully navigate through these uncertain times. We will succeed because of the tremendous partnership we share with the University of Maryland Medical System and the bold and innovative leadership provided by Dean Reece and Bob Chrencik. I continue to be amazed by the advances our physicians and scientists are making in the most critical areas of biomedical research, medical education and clinical care. Through strong and dynamic leadership, we will emerge from these challenging times stronger than ever before, as we work to improve the lives of citizens in the City of Baltimore, in the State of Maryland, and around the world.*

— Michael Cryor, Chair, SOM Board of Visitors

*The leaders of the Medical System and its member hospitals have strategically created a business model that provides Marylanders with world-class care. The strength of our partnership with the University of Maryland School of Medicine ensures that patients have the best of both worlds — community-based hospitals and access to specialty care for the most complex cases.*

— Stephen A. Burch, Esq., Chair, UMMS Board of Directors



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\*\*University of Maryland School of Medicine Alumnus

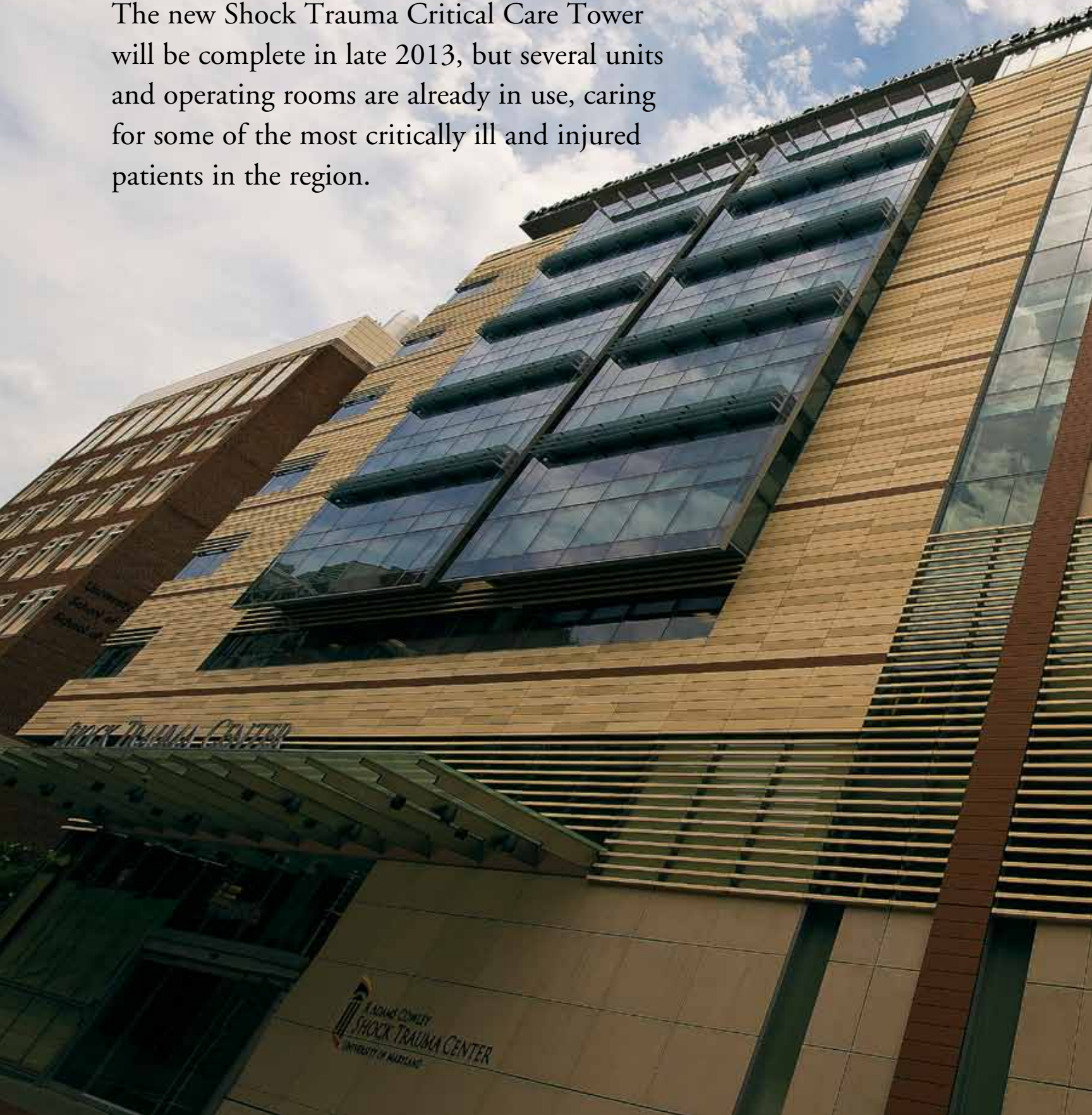
\* University of Maryland School of Law Alumnus



# DYNAMIC LEADERSHIP

*in* CHANGING TIMES

The new Shock Trauma Critical Care Tower will be complete in late 2013, but several units and operating rooms are already in use, caring for some of the most critically ill and injured patients in the region.





# TIME-SENSITIVE CRITICAL CARE MEDICINE

## SHOCK TRAUMA CRITICAL CARE TOWER NEARS COMPLETION

The new patient care units and operating rooms in the nearly completed Shock Trauma Critical Care Tower will allow UMMC to expand its capacity to provide time-sensitive critical care to seriously ill and injured patients. A \$35 million community campaign is underway to raise part of the \$160 million cost of the new tower. The project has garnered investment from the State of Maryland, as well as federal and local support.

THOMAS M. SCALEA, MD, FACS, the Francis X. Kelly Professor of Trauma Surgery and director of the Program in Trauma at the University of Maryland School of Medicine, is the physician-in-chief of the R Adams Cowley Shock Trauma Center at UMMC and system chief for critical care services for UMMS.

Expertise in the delivery of time-sensitive critical care medicine has made the University of Maryland Medical Center (UMMC) a hospital of choice throughout the Mid-Atlantic for patients with the most serious illnesses and injuries. No facility is better prepared to ensure that patients will get the right care, at the right time, in the right place.

Physicians at other hospitals throughout the region consult with UMMC 24/7 to determine if a patient should be transferred to one of UMMC's 10 highly specialized critical care units. When a consultation indicates a patient needs to be transferred to UMMC, a specialized team of physicians and nurses meets the ambulance or helicopter, ready to care for the arriving patient. In 2013, UMMC opened a new Critical Care Resuscitation Unit (CCRU) — modeled after the time-tested concept of its Trauma Resuscitation Unit — to evaluate and stabilize critically ill incoming patients.

From the CCRU, patients are then admitted to the unit most suited to their needs. Stroke patients go to the Neurocare Intensive Care Unit. Neeraj Badjatia, MD, MS, associate professor of neurology at the University of Maryland School of Medicine and medical director for the unit, works with Brigid Blaber, MS, RN, the nurse manager of the unit, to lead a team that specializes in caring for stroke and other neurological disorders. Patients with infectious disease or kidney failure might go to the Medical Intensive Care Unit, led by medical director Carl B. Shanholtz, MD, associate professor of medicine at the School of Medicine, and nurse manager Kerry Sue Mueller, BSN, MBA, RN, CCRN.

More than 30 percent of UMMC's nearly 38,000 admissions came via transfers through University of Maryland ExpressCare, whose staff specializes in the coordinated, safe and skilled transfer of patients between hospitals. Of those transfers, about 60 percent were transferred from hospitals outside of the University of Maryland Medical System.

Time-sensitive critical care medicine is a hallmark of UMMC's service to the community, state and region — as well as around the world — through programs and gold-standard protocols that are training the current and next generation of physicians and other patient care professionals.

Thomas M. Scalea, MD, FACS



Kerry Sue Mueller, BSN, MBA, RN, CCRN; Carl B. Shanholtz, MD, and Jeffrey D. Hasday, MD



Brigid Blaber, MS, RN, and Neeraj Badjatia, MD, MS



Stephen Davis, MBBS



UMMC's chief of medicine, **STEPHEN DAVIS, MBBS**, is the Dr. Theodore E. Woodward Endowed Chair in the Department of Medicine and professor of medicine.

Stephen Bartlett, MD



**STEPHEN T. BARTLETT, MD**, the Peter Angelos Distinguished Professor and Chair of the Department of Surgery at the School of Medicine, is also surgeon-in-chief and senior vice president for system program integration for UMMS.



#### UMMC ADMISSIONS SOURCE

**30%** ExpressCare

**28%** Emergency Department

**26%** Elective/All Other

**16%** Trauma (EMS)

#### MINUTES MATTER

When time-sensitive cases involve surgery, surgical teams are ready to mobilize within minutes. The faculty and resident physicians in the Department of Medicine include intensivists with international recognition for management of critical illness, including severe acute pancreatitis and peritonitis, shock and hemodynamic compromise, acute lung injury and neurological critical care.

**JEFFREY D. HASDAY, MD**, professor of medicine, heads the Division of Pulmonary and Critical Care Medicine, which is integral to several of UMMC's specialized ICUs.

UMMC'S pet visitation policy made it possible for Kyle's dog to visit him, which his parents said was a turning point in his recovery.

# ONE FAMILY

## TWO HEART TRANSPLANTS

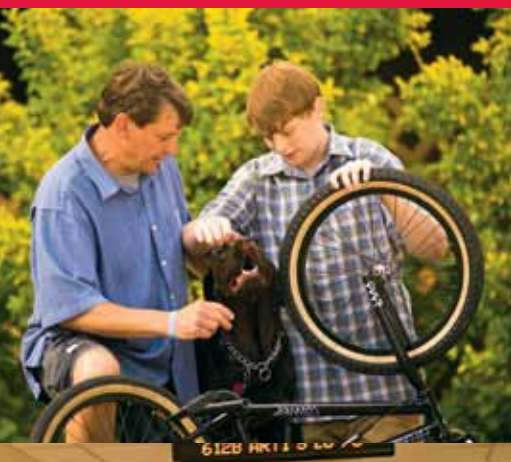
When it became clear that 15-year-old Kyle Wilkerson needed a heart transplant, there was no question in his parents' minds where he would have the surgery. Kyle's father, Randy, had received a heart transplant eight years earlier at the University of Maryland Medical Center.

"We knew that Kyle would be in good hands with the team at the University of Maryland," Randy Wilkerson said. His wife, Denise, added, "I always knew that Kyle was going to be all right. He was never afraid of having the transplant because he knew that Randy recovered completely and could do everything that he did before he got sick."

It is rare for two members of the same family to undergo heart transplants, let alone a father and a son. Doctors explained that Kyle and Randy Wilkerson, who live in Pasadena, Md., share a gene that ultimately causes heart failure. Mr. Wilkerson was in his 40s when he had his transplant, so he and his wife were stunned when their normal, active teenager suddenly became ill in February 2013 and doctors told them he needed a new heart. Kyle had his surgery on April 16.

"Without the University of Maryland Medical Center, I might not have my two guys in my life today," Mrs. Wilkerson said. "I am just so thankful that they are alive and doing well."

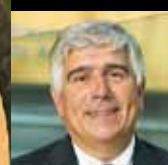
Erika Feller, MD, and Sunjay Kaushal, MD





## CHANGING THE FUTURE OF TRANSPLANTATION

Groundbreaking discoveries are being made that could change the field of transplantation based on the role that vascularized bone marrow plays in reducing the risk of rejection in recipients. These research efforts, which are made possible by US Department of Defense funding,



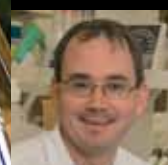
are led by **STEPHEN BARTLETT, MD**, the Peter Angelos Distinguished Professor and Chair of the

Department of Surgery at the School of Medicine and surgeon-in-chief and senior vice president for the University of Maryland Medical System.



**ROLF BARTH, MD**, associate professor of surgery and director of liver transplantation at

UMMC, is conducting pre-clinical research to attempt to make more organs available for transplantation.



**JOHN LAMATTINA, MD**, assistant professor of surgery and director of living donor liver

transplantation, is developing a way to strip native cells from donor livers, leaving only the scaffolding of the liver, and recellularize them with stem cells from the patient with liver failure. If perfected, this procedure could reduce deaths caused by the shortage of livers available for transplantation.



**ERIKA FELLER, MD**, (left), assistant professor of medicine at the University of Maryland School of Medicine and medical director for heart transplantation at UMMC, and **SUNJAY KAUSHAL, MD, PhD**, associate professor of surgery at the School of Medicine and director of pediatric cardiac surgery at UMMC, led the team of specialists who performed Kyle's lifesaving heart transplant.



## A NEW RESOURCE FOR MARYLANDERS

A new family of consumer health magazines debuted this year, tailored to each of the communities served by an UMMS hospital. Mailed to homes across the state, *Maryland's Health Matters* is filled with health and lifestyle advice and articles to help keep our communities healthy.

# UMMS GROWS AND CHANGES TO MEET THE NEEDS OF MARYLANDERS

The 2012-2013 fiscal year has been a landmark one for the University of Maryland Medical System (UMMS). The biggest move started in the summer of 2012, when negotiations began to welcome our newest member hospital — the University of Maryland St. Joseph Medical Center. This acquisition gives UMMS a presence in northern Baltimore County — the Towson area — and gives residents the benefit of a hospital that's connected to the University of Maryland Medical Center (UMMC).

Over the next several months, all UMMS hospitals changed their names to better inform patients of their connection to the system's flagship academic medical center, UMMC, where many of them refer patients for specialty care.

University of Maryland Baltimore Washington Medical Center and University of Maryland Medical Center Midtown Campus were the first of the newly named hospitals. Two separate groups of hospitals that joined UMMS several years ago — Shore Health and Chester River Health — merged their operations to become **University of Maryland Shore Regional Health**, offering a coordinated network of services to the five counties of Maryland's Mid-Shore region.

Kernan Orthopaedics and Rehabilitation became **University of Maryland Rehabilitation & Orthopaedic Institute**. This change better reflects the specialty nature of the hospital and its regional and national prominence in clinical rehabilitation research in partnership with the University of Maryland School of Medicine.

Civista Medical Center became **University of Maryland Charles Regional Medical Center**. The new name reflects the geographic area the hospital serves — Charles County — and the word "regional" reflects the expanding effort to serve a growing population in Charles County and neighboring communities.



## UNIVERSITY OF MARYLAND MEDICAL CENTER MIDTOWN CAMPUS

On June 6, 2013, the former Maryland General Hospital took on a new name in an expanded partnership with UMMC. The new name, University of Maryland Medical Center Midtown Campus, reflects the hospital's continued mission to the West Baltimore community it serves and also reflects its close proximity — one mile — to UMMC. The new name marks the start of further collaboration between the two hospitals, including the expansion of some Medical Center services to UMMC Midtown Campus. Many University of Maryland faculty physicians perform outpatient surgery at UMMC Midtown Campus, and that will continue to grow. Expansion of ambulatory services is planned for the near future.



### A RIBBON-CUTTING CEREMONY

During a ribbon-cutting ceremony and chapel dedication service on December 17, 2012, UMMS welcomed its newest hospital, University of Maryland St. Joseph Medical Center.

From left to right (below) are **ROBERT CHRENCIK**, chief executive officer of UMMS; **EDWARD GILLISS**, vice chairman, UM St. Joseph Medical Center board; **MOHAN SUNTHA, MD, MBA**, chief executive officer of UM St. Joseph Medical Center; Archbishop **WILLIAM E. LORI**, Archdiocese of Baltimore; Sister **EVELYN GRUDZA, OSF**, of the UM St. Joseph spiritual care team; and Senator **FRANCIS X. KELLY**, chairman, UM St. Joseph board.



At the launch of UMMC Midtown Campus are, from left to right: **JEFFREY A. RIVEST**, president and CEO of UMMC; **SYLVIA SMITH JOHNSON, MBA**, president and CEO of UMMC Midtown Campus; **MARILYN CARP**, board chair, UMMC Midtown Campus; **E. ALBERT REECE, MD, PhD, MBA**, dean of the UM School of Medicine; **ROBERT A. CHRENCIK, MBA, CPA**, president and CEO of the University of Maryland Medical System.

## BATTLING INFLUENZA

Fighting infectious diseases is a key area for basic science research.

**STEFANIE VOGEL, PhD**, professor in the departments of Microbiology and Immunology and Medicine, is part of the team that found that an experimental drug can treat influenza and prevent virus-induced lung injury and death in animal models, even when administered days after initial infection.

Stefanie Vogel, PhD



# BUILDING BLOCKS TO ADVANCE MEDICINE

Medical breakthroughs are built upon the foundation of basic science research. What is known today about human health and disease stems from discoveries made in research laboratories using animal models and human and animal cell lines or by studying genes and microbes.

The innovative research conducted by University of Maryland School of Medicine faculty is dramatically changing the care patients receive. At the University of Maryland Medical Center, genetic testing helps doctors determine which medication a patient should take after a stenting procedure in order to prevent blood clots that could lead to heart attacks and strokes.

This advancement is based on research by **Alan R. Shuldiner, MD**, the John L. Whitehurst Endowed Professor of Medicine, associate dean for personalized and genomic medicine and co-director of the University of Maryland Clinical and Translational Sciences Institute. In 2009, he led a study, published in the *Journal of the American Medical Association*, showing that patients with a CYP2C19 gene variation exhibited reduced clinical benefit from taking clopidogrel.

Hundreds of faculty members conduct research — with funding from the National Institutes of Health and other sources — to create the building blocks of tomorrow's advances in patient care. For example, **Christopher Plowe, MD, MPH**, professor of medicine, epidemiology and public health and microbiology and immunology, a Howard Hughes Medical Institute Investigator and leader of the Malaria Group at the Center for Vaccine Development, is working with a team to prevent the spread of drug-resistant malaria.

## DISCOVERY TRANSLATES TO BETTER CARE

Pharmacogenomics — how genes affect a person's response to drugs — is a burgeoning area of research, but only a few hospitals in the United States have applied it to clinical practice. Research led by **DR. SHULDINER** is already the basis of testing offered by cardiologist **MARK VESELY, MD**, assistant professor of medicine, who cares for patients at UMMC and the Baltimore VA Medical Center. **RICHARD ZHAO, PhD**, professor of pathology, directs the Translational Genomics Laboratory at the School of Medicine, where the genetic testing for patients is performed.

Richard Zhao, PhD, Alan Shuldiner, MD, and Mark Vesely, MD





Margaret McCarthy, PhD



Christopher Plowe, MD, MPH



## LANGUAGE DEVELOPMENT STUDIES

In the area of brain research, **MARGARET MCCARTHY, PhD**, professor and chair of the Department of Pharmacology, and her team of investigators discovered that expression of the FoxP2 gene in the brain differs between males and females and could influence sex differences in language development. This research received extensive national and international attention.



## NATIONAL RALLY FOR MEDICAL RESEARCH ON CAMPUS

Funding from the National Institutes of Health (NIH) is the lifeblood of academic biomedical research. Cuts in NIH funding led hundreds of physicians, scientists, students and staff to gather in University Plaza Park on April 8, 2013, to support the national Rally for Medical Research, which also occurred that same day at peer institutions across the country and in Washington, DC.



# SPECTRUM OF CARE FOR HEALTHY WEIGHT MANAGEMENT

## INTERVENING EARLY TO PROMOTE HEALTHIER WEIGHT

**MAUREEN BLACK, PhD**, the John A. Scholl, MD, and Mary Louise Scholl, MD, Professor in Pediatrics, is the principal investigator for “Challenge! In Middle Schools,” an obesity-prevention program targeted to African-American girls in Baltimore city middle schools.

The primary goal of the study is to evaluate the impact of a multi-level intervention on adolescent girls’ body composition, diet and physical activity.

Maureen Black, PhD



The obesity epidemic in America has risen to staggering proportions, with more than 78 million adults and about 12.5 million children and adolescents struggling with this condition, according to the U.S. Centers for Disease Control and Prevention. Although it was officially categorized as a disease in the summer of 2013, obesity has long been an area of study and clinical expertise at the University of Maryland School of Medicine and the University of Maryland Medical System.

Because obesity is a complex disease, the University of Maryland medical community offers services across the whole spectrum of care — from childhood through adulthood. Some simply need to control their weight; others need to lose more than 100 pounds to avoid serious health consequences such as cardiovascular and pulmonary disease, type 2 diabetes, orthopaedic injuries and other disorders.

The University of Maryland Center for Diabetes and Endocrinology provides specialized care to patients with diabetes who also are struggling with weight problems. “We offer a personalized perspective, specific to people who have diabetes. We can adjust their medications to help promote weight loss and offer help with nutrition and behavior modification. We look at every aspect of their care,” said **Ava Port, MD**, assistant professor of medicine, who leads the center’s Obesity and Weight Management Program.

Patients are referred by primary care providers, endocrinologists and other University of Maryland physicians, including those at the UM Center for Weight Management and Wellness. The program also refers patients to the bariatric surgery team, as appropriate.

Ava Port, MD





Carissa Baker-Smith, MD, MS, MPH

## PREVENTING CHILDHOOD CARDIOVASCULAR DISEASE

The Children's Heart Program within the University of Maryland Children's Hospital uses motivational techniques to help pediatric patients lose weight and prevent cardiovascular disease.

**CARISSA BAKER-SMITH, MD, MS, MPH**, assistant professor of pediatrics, leads the Center for Obesity and Consequences in Health (COACH) trial to help pediatric cardiology patients achieve a healthy weight.

## SURGICAL OPTIONS WITH FOLLOW-UP CARE

Bariatric surgeons have performed more than 700 weight-loss surgeries with great success and few complications. Minimally invasive surgical techniques are used when possible to minimize scarring and expedite recovery. For obese patients, data show that bariatric surgery is more effective than usual care in reversing or even preventing type 2 diabetes. After weight-loss surgery, patients continue to follow up with physicians who are experts in primary care, exercise and weight management. Weight-loss surgery patients who have diabetes follow up with University of Maryland endocrinologists from the Department of Medicine.



**MARK KLIGMAN, MD**, assistant professor of surgery and director of the Center for Weight Management and Wellness at the University of Maryland Medical Center, and **KATE LAMOND, MD**, assistant professor of surgery.

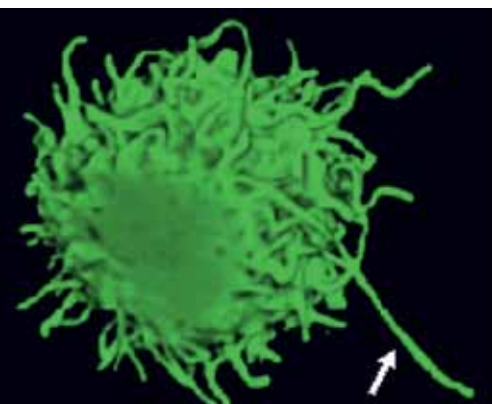
Kate LaMond, MD, and Mark Kligman, MD



Yvette Rooks, MD, CAQ



**YVETTE L. ROOKS, MD, CAQ**, vice chair and assistant professor in the Department of Family and Community Medicine, runs a program called Better My Identity (BMI) to boost the self esteem of her young, overweight patients.



### THE DISCOVERY OF MICROTENTACLES

**STUART MARTIN, PhD**, associate professor of physiology, and his laboratory discovered microtentacles on circulating tumor cells that play a key role in how cancers spread to distant locations in the body. Targeting these microtentacles promises to provide a new way to prevent or slow the growth of these secondary cancers.

He is now collaborating with his clinical colleague, **JOHN OLSON, MD, PhD**, the Campbell and Jeannette Plugge Professor in Surgery and division chief of general and oncologic surgery, whose research interests include development of biomarkers for breast cancer and the use of aromatase inhibitor therapy to improve surgical outcomes for women with breast cancer. Their latest research examines tumor cells immediately after their removal during surgery to see how microtentacles respond to different cancer drugs. With a special laser microscope, microtentacles can be detected within hours after the tumor is removed from the patient.

Their goal is to study these rapid responses to better understand which existing drugs will help the patient best over the long term.

# CANCER DISCOVERIES LEAD TO NEW THERAPIES

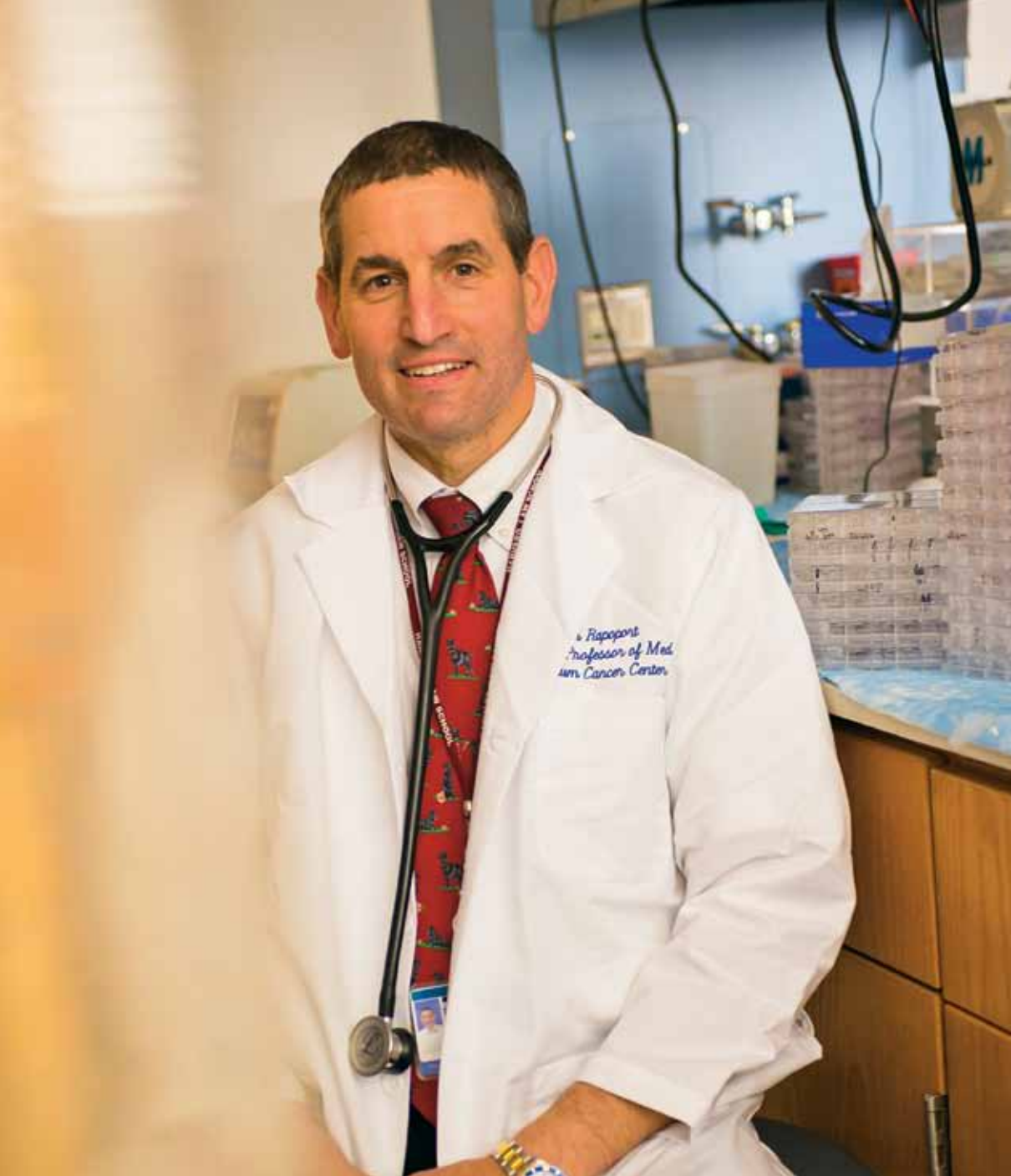
Experts at the University of Maryland Marlene and Stewart Greenebaum Cancer Center are unraveling the mystery of how cancer develops and spreads within the body and investigating new therapies for patients. As faculty members of the University of Maryland School of Medicine, these physicians and scientists are at the forefront of exciting research that is continuously informing advances in patient care at the Greenebaum Cancer Center and around the world.

**Aaron Rapoport, MD**, the Gary Jobson Professor in Medical Oncology, and his colleagues recently demonstrated a remarkable advance in the treatment of blood cancers. They found that by taking a patient's own immune cells, known as T-cells, genetically modifying them and then returning them to the patient, they were able to bring about complete remission in some patients.

"We are at the cusp of other important discoveries and developments in this field of cellular immunotherapy, which will have wide-ranging impact on the treatment of many forms of cancer," Dr. Rapoport said.



Stuart Martin, PhD, and John Olson, MD, PhD



Aaron Rapoport, MD



## A GREENEBAUM FAMILY LEGACY

**KEVIN J. CULLEN, MD**, was named the first Marlene and Stewart Greenebaum Distinguished Professor in Oncology at the University of Maryland School of Medicine at a ceremony March 5, 2013. The ceremony also honored the members of the Greenebaum family for their extraordinary generosity in supporting the world-class oncology research and treatment program at the University of Maryland Marlene and Stewart Greenebaum Cancer Center. Dr. Cullen is also a professor of medicine and director of the Greenebaum Cancer Center. Mr. and Mrs. Greenebaum are longtime benefactors of the center named in their honor in the 1990s.



Angela Brodie, PhD, and Vincent Njar, PhD

## VN/124-1 COMPOUND DISCOVERY

Cancer researchers **ANGELA BRODIE, PhD**, and **VINCENT NJAR, PhD**, both professors of pharmacology, have developed a new compound, VN/124-1, for the treatment of prostate cancer.

The invention builds on Dr. Brodie's groundbreaking work in developing aromatase inhibitors, now standard treatment for women with breast cancer worldwide. VN/124-1 disrupts androgen-receptor signaling and is showing great promise in clinical trials for prostate cancer. VN/124-1, now known as galeterone, has received fast-track designation by the US Food and Drug Administration for treatment of castration-resistant prostate cancer.



**KEVIN CULLEN, MD**, (center) at his investiture, with **E. ALBERT REECE, MD, PhD, MBA**, (left) dean of the School of Medicine, and **STEPHEN DAVIS, MBBS**, the Dr. Theodore E. Woodward Endowed Chair in the Department of Medicine and professor of medicine.

# LEADERSHIP AND IMPACT IN MENTAL HEALTH

The University of Maryland School of Medicine has long been a world leader in mental health care, research and education. One shining example of its impact is the Maryland Psychiatric Research Center (MPRC), where faculty are working on new techniques in the early diagnosis of schizophrenia. Their studies have found that identifying the disease and treating it early — even in adolescence — can help patients overcome this condition and lead fuller lives.

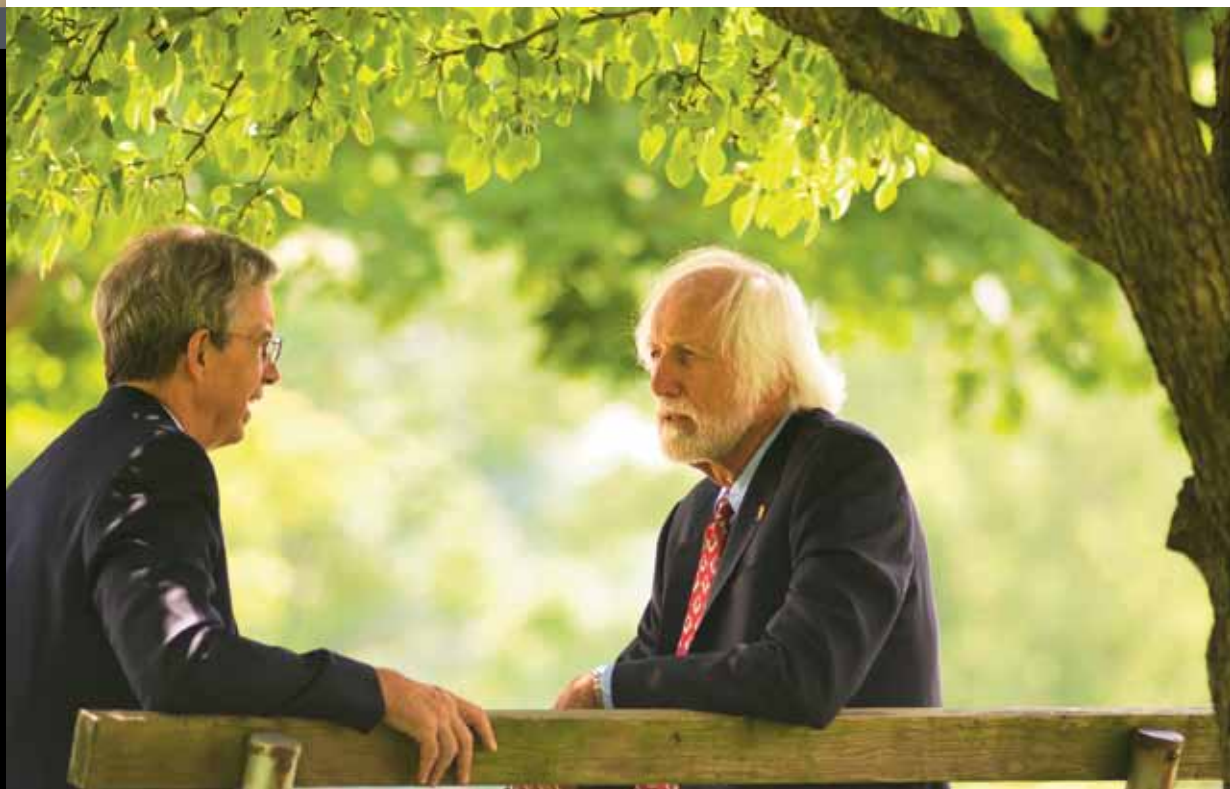
As the MPRC continued its critical work, 2013 marked a milestone. **William T. Carpenter, MD**, professor of psychiatry and pharmacology, stepped down as its distinguished longtime director, retaining his full-time professorship to devote himself to research and teaching. Dr. Carpenter's research and patient care integrates biological, psychological and social data as they pertain to diagnosis, treatment and etiology. As one of the world's leading experts on schizophrenia, he has made fundamental contributions in psychopathology, assessment methodology, testing of new treatments, research ethics and translational science.

**Robert W. Buchanan, MD**, professor of psychiatry and director of the MPRC Outpatient Research Program, has been appointed MPRC interim director. Dr. Buchanan is a nationally recognized expert whose research includes the neurobehavioral and neuroanatomical investigation of the pathophysiology of schizophrenia. He also examines novel pharmacological treatment of cognitive impairments and treatment-resistant symptoms in people with schizophrenia.

The Center for School Mental Health is another national mental health resource, conducting groundbreaking research and training school professionals nationwide on topics such as averting school-related violence and helping children cope with trauma. These issues were of increasing national importance this year after tragedies such as the school shooting at Newtown, Conn., in December 2012.



Robert Buchanan, MD, and William Carpenter, MD





Scott Thompson, PhD

## UNDERSTANDING DEPRESSION

Basic science research by **SCOTT THOMPSON, PhD**, professor and chair of the Department of Physiology, has found that depression may result from a disturbance in the ability of brain cells to communicate with each other. His study indicates a major shift in the understanding of what causes depression and how to treat it. Instead of focusing on the levels of hormone-like chemicals in the brain, such as serotonin, the scientists found that the transmission of excitatory signals between cells becomes abnormal in depression. The research could lead to groundbreaking new treatments focusing on these cells, rather than on serotonin.

Jill RachBeisel, MD



## SKILLS FOR INDEPENDENCE

The Academy of Independent Living houses and educates patients whose mental illnesses have stabilized with treatment, and was developed by **JILL RACHBEISEL, MD**, associate professor of psychiatry and director of the Division of Community Psychiatry. Richard Turnage, at right with his mother, was a member of the first graduating class in December of 2012.



## MARYLAND CENTER OF EXCELLENCE ON PROBLEM GAMBLING

With the presence of casinos growing in the state, the Maryland Center of Excellence on Problem Gambling educates health professionals and the public on the dangers of problem gambling. The center was created by the Maryland General Assembly and funded by the state Department of Health and Mental Hygiene to mitigate the increase in problem gambling that experts predicted would occur with the legalization of gambling in Maryland. Its hotline has received hundreds of calls, and its training programs for professionals teach them to identify and treat the condition.



Christopher Welsh, MD, and Joanna Franklin, MS

The Maryland Center of Excellence on Problem Gambling is led by director **JOANNA FRANKLIN, MS, NCGC II**, and medical director **CHRISTOPHER P. WELSH, MD**, associate professor of psychiatry.

## SERVING MARYLAND

Maryland is a geographically diverse state: The Chesapeake Bay, thousands of acres of farmland or mountainous terrain may stand between many state residents and a major medical center. University of Maryland eCare puts increased expertise in their community hospitals in an efficient, cost-effective way.

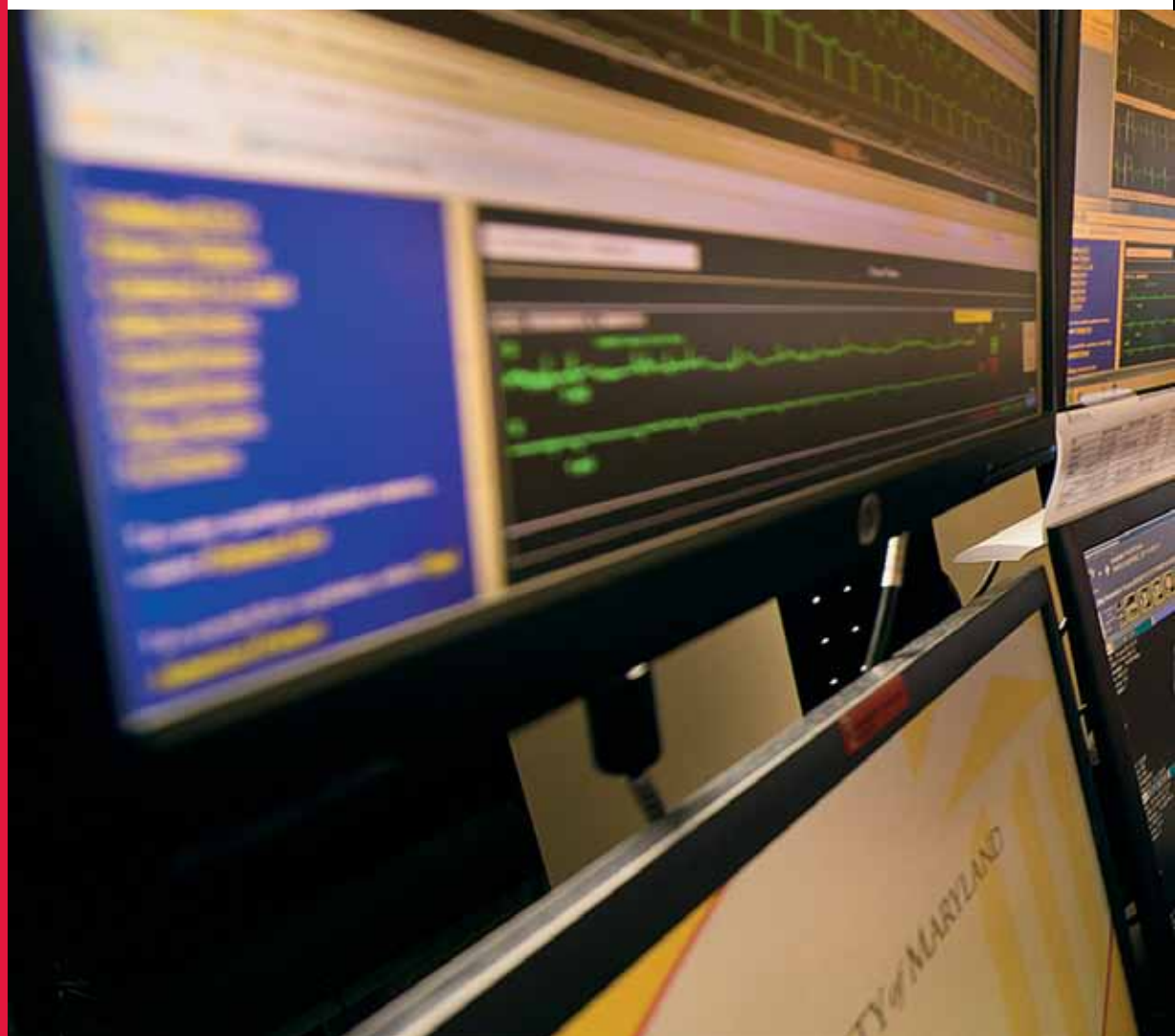
Computers detect patient trends in vital signs to alert onsite and University of Maryland eCare staff to provide further diagnosis and treatment plans. "When I'm sitting in the central operations room, I can see all the patients' X-rays, I can see all their vital signs — every bit of information I would have if I were in that hospital," **MARC ZUBROW, MD**, said. "If there's a 10 percent increase in heart rate, it will send an electrical signal to me to look at this patient. It may be nothing, but it gets a set of human eyes looking at that patient's overall picture right away. Most of the time we're fixing little things so they don't become big things."

# UNIVERSITY OF MARYLAND eCARE

## A VIRTUAL SAFETY NET FOR HOSPITAL PATIENTS

When an elderly woman developed confounding symptoms late one night in a Maryland hospital, it was an intensive care specialist physician many miles away who first noticed she was having a heart attack. Sitting in Baltimore surrounded by technology, the intensivist from the University of Maryland Medical System (UMMS) was able to zero in on the diagnosis using sophisticated equipment that remotely monitored subtle trends in the patient's vital signs. The physician quickly worked with staff in the local hospital to address the woman's worsening condition. University of Maryland eCare launched on April 30 and currently serves six Maryland hospitals. This fall, University of Maryland eCare will expand to include University of Maryland Shore Regional Health, the Eastern Shore hospital network that is a member of UMMS and that was created with the merger of Shore Health and Chester River Health.

Also known as the tele-ICU, this type of telemedicine technology allows intensivists and critical care nurses from a central operations room at the University of Maryland Medical Center campus to oversee patient care in ICUs during night and weekend hours, providing a virtual safety net for these smaller facilities. The staff at local hospitals can also get immediate consultation from an expert on a particular ICU patient during the day, if needed.





Marc Zubrow, MD

## THE CONTROL ROOM

"More than 12 percent of ICU beds across the country are under a program such as University of Maryland eCare, so it really is a nationwide trend," said MARC T. ZUBROW, MD, associate professor of medicine at the University of Maryland School of Medicine, vice president of telemedicine for UMMS and medical director of University of Maryland eCare. Dr. Zubrow hopes someday to expand the University of Maryland eCare program to other applications, such as in psychiatry, stroke, dermatology, wound care, pediatrics, trauma and obstetrics.





Deborah Stein, MD, MPH

## ACCESS TO BLOOD

Blood is of critical importance for any major operation. Liver transplants require at least 10 units of blood products to be typed and prepped for each patient before the surgery begins. Without access to blood, cardiac, transplant and trauma surgeries would be impossible. Patients who arrive at the R Adams Cowley Shock Trauma Center have often lost a great deal of blood from an injury. "A severely injured patient sometimes requires massive amounts of blood products to save their life," said **DEBORAH M. STEIN, MD, MPH**, associate professor of surgery, chief of the Division of Trauma and medical director of the Neurotrauma Critical Care Unit.

# LEADING BY EXAMPLE

## UMMS STAFF GIVE OF THEMSELVES +

Every two seconds in the United States, someone needs blood. No one understands that better than the staff at the 12 hospitals in the University of Maryland Medical System (UMMS). Over the last two years, UMMS hospitals have made it part of their community mission to be very public about the need to increase blood donations, and they are leading by example.

In Fiscal 2013, UMMS became the No. 1 hospital system for blood donations in the American Red Cross Greater Chesapeake Region. Almost 26 percent of UMMS employees donate blood. UMMS collected a record 2,747 units of blood during Fiscal 2013, a total that reflects donations at drives held at UMMS hospitals as well as other community drives sponsored by UMMS throughout the year. Each unit donated can save three lives, which means the UMMS blood donations may have helped more than 8,000 patients throughout Maryland.

UMMS hospitals have made a concerted effort to make blood drives more convenient to staff and visitor schedules, to sponsor more drives — often in tandem with community organizations such as the Baltimore Orioles, the Baltimore Fraternal Order of Police, area high schools and others — and to raise awareness about the need for blood.



UMMC staff care for some of the most critically ill and injured patients who have the greatest need for donated blood, whether for surgery, cancer or traumatic injury such as automobile crashes. Here, staff line up to donate blood at one of the in-hospital blood drives.



"Blood products from volunteer donors are essential to the treatment of patients with hematologic malignancies and solid tumors," said **KEVIN CULLEN, MD**, the Marlene and Stewart Greenebaum Distinguished Professor in Oncology and director of the University of Maryland Greenebaum Cancer Center. "The majority of patients we see will need blood product support as part of their treatment, and many will require large numbers of transfusions. Without these blood products, we would not be able to care for or cure patients who come to our center."

Trauma	UMMS hospitals use more than 60,000 units of blood each year in caring for patients.
Cancer	
Cardiac Surgery	
Transplantation	



**UNIVERSITY OF MARYLAND CHARLES REGIONAL MEDICAL CENTER** (left), formerly known as Civista Medical Center, has a strong tradition of community support for its blood drives, which are held at two area churches and the American Legion. Such community support is critical to UMMS's blood drive success.



At **UNIVERSITY OF MARYLAND BALTIMORE WASHINGTON MEDICAL CENTER**, Bret Paris (right), a pharmacy technician, is one of the many staff members who are dedicated blood donors.





Happy 200th Birthday, Davidge Hall!

**DAVIDGE HALL**  
NAMED FOR THE FIRST DEAN OF THE UNIVERSITY  
OF MARYLAND SCHOOL OF MEDICINE, DR. JOHN B.  
DAVIDGE. NOTED FOR ITS UNIQUE CLASSICAL  
APPEARANCE, IT IS THE OLDEST BUILDING IN  
THE COUNTRY USED CONTINUOUSLY FOR MEDICAL  
EDUCATION. THE MEDICAL SCHOOL, ESTABLISHED  
1807 BY THE MARYLAND GENERAL ASSEMBLY,  
IS THE FIFTH TO BE FOUNDED IN THE UNITED

# UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE HIGHLIGHTS

Davidge Hall, the signature building of the University of Maryland School of Medicine, celebrated its 200th birthday this year. Davidge Hall was placed on the National Register of Historic Places in 1974 and designated a National Historic Landmark in 1997. It is the oldest medical school building in continuous use in the Western Hemisphere. From these historic roots, the University of Maryland School of Medicine — the nation's first public medical school — has grown to achieve top-tier status as a national leader in clinical and academic medicine and biomedical research. The following pages highlight our work this year.



## SCHOOL OF MEDICINE HIGHLIGHTS

### RESEARCH



SUNJAY KAUSHAL,  
MD, PhD

#### Neonatal Cardiac Stem Cells Mend Children's Broken Hearts

Sunjay Kaushal, MD, PhD, associate professor, Department of Surgery, is exploring novel ways to treat serious heart problems in children. His research team conducted the first direct comparison

of the regenerative abilities of neonatal and adult-derived human cardiac stem cells. Their findings were published in the September 11, 2012, issue of *Circulation*.



SCOTT DEVINE, PhD

#### Evolution of Genomics

The study of genes and microbes that normally live in the human body continues to evolve. At the forefront are Scott Devine, PhD, associate professor of medicine, and Claire Fraser, PhD, professor in the departments of Medicine and Microbiology



CLAIRE FRASER, PhD

and Immunology and director of the Institute for Genome Sciences. Dr. Devine is contributing to the international "1,000 Genomes Project." Dr. Fraser was part of a team that identified 26 species of naturally-occurring bacteria in the gut associated with obesity and metabolic syndrome.



DAVID TRISLER, PhD

#### Investigators Find Cell- Replacement/Tissue-Repair Potential in Adult Bone Marrow Stem Cells

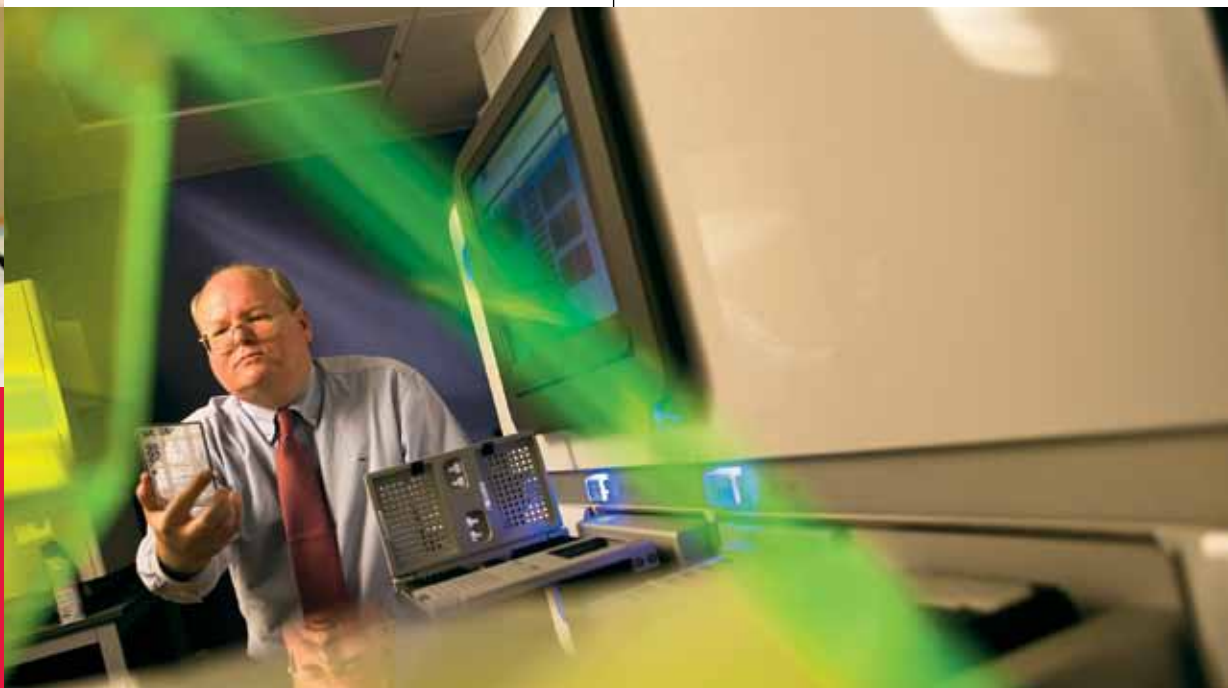
David Trisler, PhD, assistant professor of neurology, led a team that had promising results in an animal model when they tried

using adult stem cells from bone marrow in mice to help create tissue cells of other organs, such as the heart, brain and pancreas. By identifying the potential of these adult CD34+ bone marrow cells to be "multipotent" (capable of transforming and functioning as the normal cells in several different organs do), Dr. Trisler and his team hope eventually to discover new ways of replacing cells lost through diseases such as diabetes, Parkinson's or Alzheimer's.



RICARDO FELDMAN,  
PHD

Ricardo Feldman, PhD, associate professor, Department of Microbiology and Immunology, and his collaborators reprogrammed adult stem cells to develop into cells that are genetically similar to and react to drugs in a similar way as cells from patients with Gaucher disease. The stem cells will allow the scientists to test potential new therapies in a dish, accelerating the process toward drug discovery.



## SCHOOL OF MEDICINE HIGHLIGHTS



**TEODOR T.  
POSTOLACHE, MD**

### Possible Link Between Common Parasite and Suicidal Behavior

Women infected with the *Toxoplasma gondii* (*T. gondii*) parasite, which is spread through contact with cat feces or eating undercooked meat or unwashed vegetables, are at increased risk of

attempting suicide, according to a new study of more than 45,000 women in Denmark. **Teodor T. Postolache, MD**, a professor in the Department of Psychiatry with expertise in suicide neuroimmunology, was the senior author of the study, which was published in the *Archives of General Psychiatry*.



**RANDI COHEN, MD,  
MS**

### Radiation Following Surgery Improves Survival for Elderly Breast Cancer Patients

A study done by **Randi Cohen, MD, MS**, assistant professor, Department of Radiation Oncology, and her colleagues found that elderly women (ages

70-84) with early-stage breast cancer live longer with radiation therapy and surgery compared with surgery alone.



**ROLF BARTH, MD**

### Single-Port Kidney Removal Through Navel Boosts Living-Donor Satisfaction

**Rolf Barth, MD**, associate professor, Department of Surgery, conducted the largest study of its kind on living donors who had a kidney removed through a single port in

the navel rather than through traditional multiple-port laparoscopic removal. These patients reported higher satisfaction in several key categories compared to traditional donors. Additionally, the new technique was associated with fewer limitations in bending, kneeling or stooping following surgery, and slightly less pain after surgery, compared to the multi-port approach. At the same time, the study found the two procedures equally safe. The results were published in *Annals of Surgery*.



**HAFIZ AHMED, PhD**

### A Fishy Way of Inhibiting Cancer Growth

**Hafiz Ahmed, PhD**, assistant professor, Department of Biochemistry and Molecular Biology, and his colleagues at the Institute for Marine and Environmental

Technology (IMET), identified a peptide derived from Pacific cod that may inhibit prostate cancer from spreading. The TFD (Thomsen-Friedenreich disaccharide) antigen in the fish protein is hidden in normal human cells but is exposed on the surface of cancer cells and might play a key role in how cancer spreads. The research team developed a special form of TFD, called TFD100. Using animal models, they found that TFD100 binds to galectin-3, a protein that is overexpressed in prostate cancer cells, and blocks its interaction with the TFD antigen found on the surface of the cells.



The University of Maryland School of Medicine will break ground in the fall of 2013 on the much-anticipated Health Sciences Facility III Research Building.

## SCHOOL OF MEDICINE HIGHLIGHTS

### CLINICAL CARE

#### Faculty Practice Expands with UMMS

University of Maryland Faculty Physicians, Inc. (FPI), strives to continuously improve the financial and operational performance of the medical practices within the University of Maryland Medical System (UMMS). FPI also aims to develop and maintain a patient base that matches the needs of the School of Medicine, while conducting business in compliance with all regulatory standards. In conjunction with the growth of UMMS to 12 member hospitals across the state, FPI has expanded medical practices to a variety of similar locations, to better serve patients in areas that previously might not have had such expertise available locally.



### EDUCATION

#### Foundation of Research and Critical Thinking

A new course has been implemented to prepare medical students for the challenges of clinical practice or research. The course — Foundations of Research and Critical Thinking — strengthens the curriculum by requiring each medical student (starting with the Class of 2017) to create and execute a scholarly scientific research project. Each student will select a mentor for his/her project, prepare a proposal and complete either a clinical, translational or basic science research project or a grant application. Students may pursue a dual degree (PhD, MPH, MS) to fulfill this research requirement.

#### Collaborative School of Public Health

The University of Maryland, College Park, and the University of Maryland, Baltimore, announced in September 2012 that they are establishing a collaborative school of public health to give graduate students at both institutions expanded opportunities in public health education, research, service and training. The Council on Education for Public Health uses the term “collaborative school of public health” to describe a school that offers degree programs across more than one institution, but is accredited as a single unit. Currently, there are only three collaborative schools of public health in the country.



HARVEY FINEBERG,  
MD, PhD

#### Graduation Inspiration

Harvey Fineberg, MD, PhD, president of the Institute of Medicine of the National Academy of Sciences, was chosen by the Class of 2013 to be its keynote speaker at Convocation.



# SCHOOL OF MEDICINE HIGHLIGHTS

## COMMUNITY ENGAGEMENT



LILY IM, MD

### Free Lunchtime Eye Care

Lily Im, MD, assistant professor, Department of Ophthalmology and Visual Sciences, and students from the School of Medicine are now providing free glaucoma screenings at Lexington Market in Baltimore. These Site Saver screen-

ings, held the first Wednesday of every month, include a review of medical history, screening for blood pressure, vision and FDT visual field, and eye pressure measurements.

### Making the Case for Research

State officials were invited to the University of Maryland School of Medicine on November 29, 2012, for a very special tour and educational conference. The first “**Research Transforming Medicine Day**” focused on the importance of research funding to advance the innovation and discovery that lead to new treatments and cures and drive economic development throughout the region.



### Mini-Med School

Over five weeks in September and October, adults are encouraged to come to campus on Wednesday nights for Mini-Med School. Faculty members volunteer to teach presentations on medical topics that are of concern to the local community, such as health disparities, diabetes, asthma, obesity and kidney disease. Participants receive information to take home and graduation certificates for attending.

Each summer, the School of Medicine holds Mini-Med School for Kids at the Franklin Square Boys and Girls Club in West Baltimore. Faculty members visit the camp to teach the children how to keep themselves and their families healthy and to encourage them to consider careers in science and medicine. At the end of the six sessions, Dean E. Albert Reece, MD, PhD, MBA, hosts a graduation ceremony with the campers to celebrate all they have learned.

School of Medicine Dean E. ALBERT REECE, MD, PhD, MBA, and the graduates of Mini-Med School for Kids.



**DEBRA COUNTS, MD**, (top photo) associate professor of pediatrics and chief of the Division of Pediatric Endocrinology, teaches kids about nutrition at Mini-Med School for Kids. Her expertise is working with children who have diabetes or metabolic issues that may contribute to obesity. She is a recognized expert in Prader-Willi Syndrome, a congenital disease that causes constant hunger.

**ERIN HAGER, PhD**, (bottom photo) assistant professor of pediatrics, shared healthy eating tips with campers during a session of the School of Medicine's Mini-Med School for Kids in the summer of 2013.



## SCHOOL OF MEDICINE HIGHLIGHTS

### MILESTONES AND TRANSITIONS

#### Record Number of Faculty Named “Top Doctors” in *Baltimore Magazine*

An all-time high of 98 University of Maryland doctors, all members of the School of Medicine faculty, were recognized as “Top Doctors” in *Baltimore Magazine*’s November 2012 issue. The results are based on a survey of more than 10,000 randomly selected physicians in the Baltimore area, asking which specialists they would recommend to a member of their families.

#### Maryland Proton Treatment Center Progress

The newest building on campus, the Maryland Proton Treatment Center, had its ceremonial “topping out” on January 17, 2013, with the last beam put in place at the pinnacle of the building. The center is scheduled to open for business in 2014, becoming the first proton center in the Baltimore/Washington area. Proton therapy allows more precise targeting of tumors, resulting in less damage to surrounding tissue during radiation therapy.

#### “Influential Marylander” at the School of Medicine

The University of Maryland School of Medicine’s **Claire Fraser, PhD**, director of the Institute for Genome Sciences and a professor in the Department of Medicine and the Department of Microbiology and Immunology, was named to *The Daily Record* 2013 list of Influential Marylanders.

#### University of Maryland Establishes Center for Health-Related Informatics and Bioimaging



OWEN WHITE, PhD

The School of Medicine and the University of Maryland, College Park (UMCP), will collaborate on an informatics center to unite research scientists and physicians across disciplines. The center will employ these interdisciplinary connections to enhance the use of cutting-edge medical science — such as genomics and personalized medicine — as well as to accel-

ate research discoveries and improve health care outcomes. Participants in the new University of Maryland Center for Health-Related Informatics and Bioimaging (CHIB) will collaborate with computer scientists, engineers, life scientists and others at a similar center at UMCP, together forming a joint center supported by the M-Power Maryland initiative. The School of Medicine’s **Owen White, PhD**, professor of epidemiology and public health and director of bioinformatics at the Institute for Genome Sciences, will be co-director of the center with UMCP’s **Amitabh Varshney, PhD**, professor of computer science and director of UMCP’s Institute for Advanced Computer Studies.



AARON RAPOPORT,  
MD

#### Endowed Professorships Honor Outstanding Faculty

**Aaron Rapoport, MD**, professor, Department of Medicine, was named the first Gary Jobson Professor in Medical Oncology on September 12, 2012. **Kevin**



KEVIN CULLEN, MD

**Cullen, MD**, director of the University of Maryland Marlene and Stewart Greenebaum Cancer Center, was named the first Marlene and Stewart Greenebaum Distinguished Professor in Oncology on March 5, 2013.



JOHN OLSON, MD,  
PHD

**John Olson, MD, PhD**, professor, Department of Surgery, was named the Campbell and Jeanette Plugge Professor in Surgery on May 23, 2013. **Alan Faden, MD**, professor, Department of Anesthesiology, was named the first David S. Brown Professor in Trauma on June 5, 2013.



ALAN FADEN, MD



Claire Fraser, PhD

## SCHOOL OF MEDICINE HIGHLIGHTS

### New Department Chairs

**Bennie Jeng, MD, MS**, was appointed the new chair of the Department of Ophthalmology and Visual Sciences. **Christopher Harman, MD**, was appointed chair of the Department of Obstetrics, Gynecology and Reproductive Sciences after nearly three years as interim chair. **Barney Stern, MD**, professor, Department of Neurology, was appointed interim chair of the department following the death of chair **William Weiner, MD**. **Bankole Johnson, DSc, MD, MPhil**, was appointed chair of the Department of Psychiatry. **Andrew Pollak, MD**, was appointed chair of the Department of Orthopaedics after nearly a year as interim chair. **Scott Thompson, PhD**, was appointed chair of the Department of Physiology.

### Leadership Changes

**Robert Buchanan, MD**, professor, Department of Psychiatry, was appointed interim director of the Maryland Psychiatric Research Center (MPRC), succeeding **William Carpenter, MD**, who will be devoting himself full time to teaching and research. **Michael Donnenberg, MD**, professor, Department of Medicine, replaced **Terry Rogers, PhD**, as director of the Medical Scientist Training Program. **James Gammie, MD**, professor, Department of Surgery, was appointed the new chief of the Division of Cardiac Surgery, while **Sheri Slezak, MD**, professor, was named the new chief of the Division of Plastic and Reconstructive Surgery. **David Schwartz, MB, BCh**, clinical professor, Department of Obstetrics, Gynecology and Reproductive Sciences, was appointed director of Clinical Affairs Programs.

### A New Leadership Structure for Trauma

**Deborah Stein, MD, MPH**, associate professor, Department of Surgery, medical director of the Neurotrauma Critical Care Unit, was appointed chief of trauma at the R Adams Cowley Shock Trauma Center (STC). **James V. O'Connor, MD, FACS**, associate professor, Department of Surgery, was appointed chief of trauma critical care at STC. **Jose J. Diaz, MD**, professor, Department of Surgery, was appointed chief of acute care surgery at STC.

### An Ambitious Campaign

*Transforming Medicine Beyond Imagination* was the theme of the 2013 University of Maryland School of Medicine Gala May 11 at the Baltimore Convention Center. It is also the name of the largest capital campaign in the School of Medicine's history. The campaign was publically launched at the gala. The campaign already has raised more than \$300 million toward its ambitious goal to raise a minimum of \$500 million by 2015.



Jose J. Diaz, MD; Thomas Scalea, MD, FACS; Deborah Stein, MD, MPH; and James V. O'Connor, MD, FACS





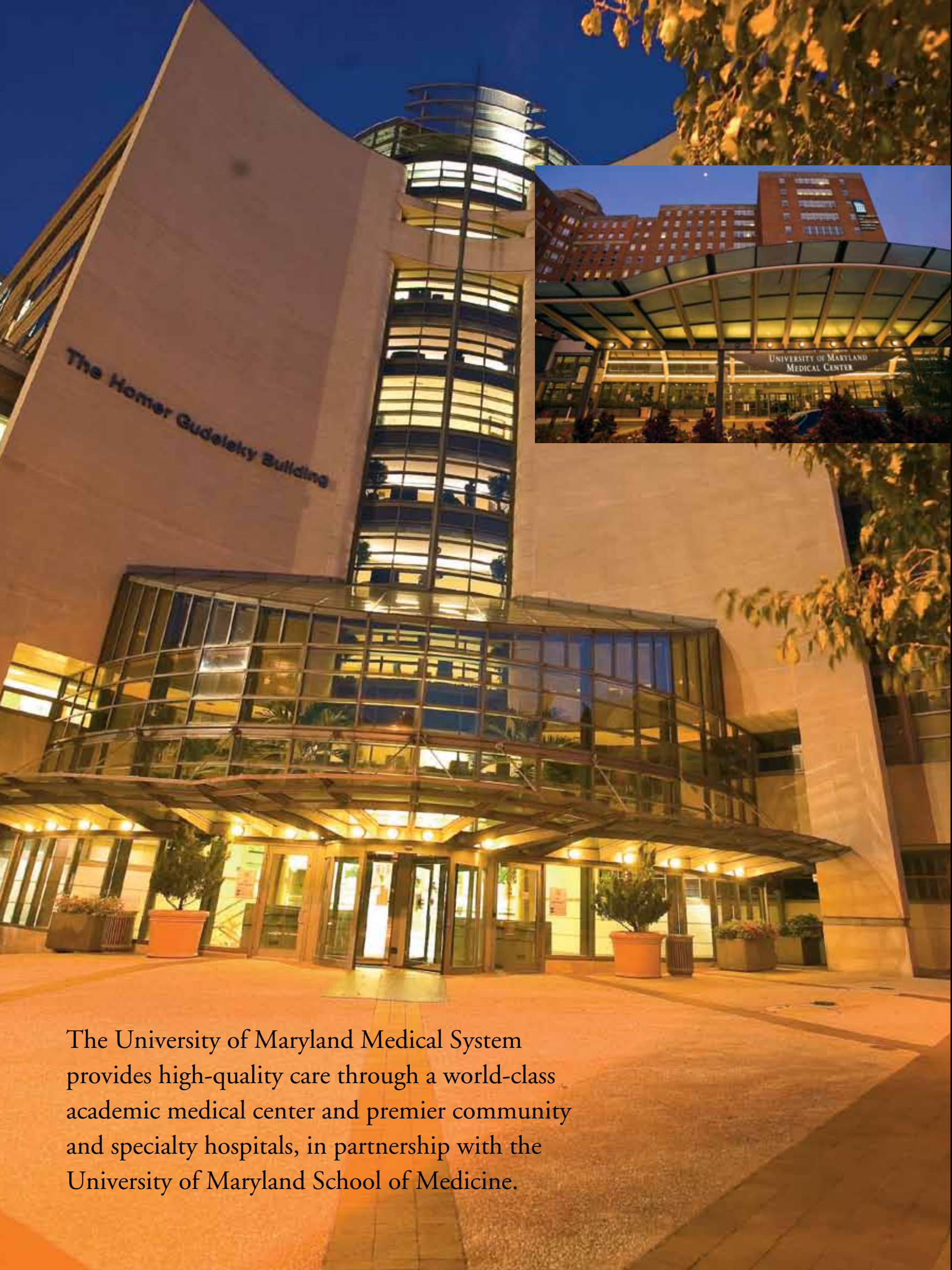


# UNIVERSITY OF MARYLAND MEDICAL SYSTEM HIGHLIGHTS

The Medical System welcomed its newest member in December 2012  
— University of Maryland St. Joseph Medical Center in Towson.

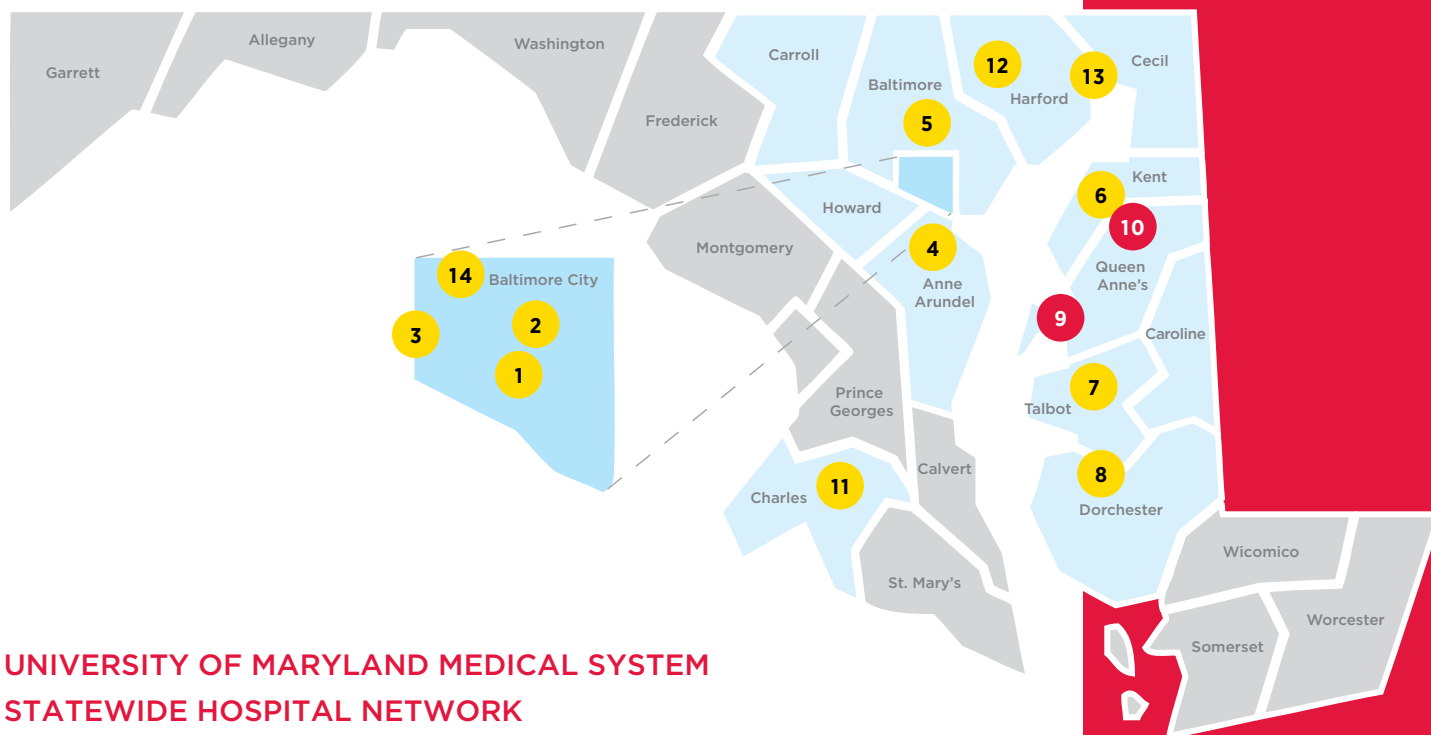
**Mohan Suntha, MD, MBA**, is leading the hospital as president and  
CEO. The hospital will celebrate its 150th anniversary next year.

Read more about our other hospitals' highlights on the following pages.



The University of Maryland Medical System provides high-quality care through a world-class academic medical center and premier community and specialty hospitals, in partnership with the University of Maryland School of Medicine.

# UMMS HIGHLIGHTS



- 1 UNIVERSITY of MARYLAND MEDICAL CENTER
- 2 UNIVERSITY of MARYLAND MEDICAL CENTER MIDTOWN CAMPUS
- 3 UNIVERSITY of MARYLAND REHABILITATION & ORTHOPAEDIC INSTITUTE
- 4 UNIVERSITY of MARYLAND BALTIMORE WASHINGTON MEDICAL SYSTEM
- 5 UNIVERSITY of MARYLAND ST. JOSEPH MEDICAL CENTER
- 6 UNIVERSITY of MARYLAND SHORE MEDICAL CENTER AT CHESTERTOWN
- 7 UNIVERSITY of MARYLAND SHORE MEDICAL CENTER AT EASTON
- 8 UNIVERSITY of MARYLAND SHORE MEDICAL CENTER AT DORCHESTER

- 9 UNIVERSITY of MARYLAND SHORE EMERGENCY CENTER AT QUEENSTOWN
- 10 UNIVERSITY of MARYLAND SHORE NURSING & REHABILITATION CENTER AT CHESTERTOWN
- 11 UNIVERSITY of MARYLAND CHARLES REGIONAL MEDICAL CENTER



- 12 UPPER CHESAPEAKE MEDICAL CENTER
- 13 HARFORD MEMORIAL HOSPITAL



14

UMMS Primary Service Area

Inpatient Hospital

Other Medical Facility

## FISCAL 2013 QUICK FACTS

- 2,430 LICENSED BEDS
- 23,191 EMPLOYEES
- 125,801 HOSPITAL ADMISSIONS
- 1,425,093 OUTPATIENT VISITS
- \$3 BILLION IN ANNUAL REVENUE
- 412,298 EMERGENCY VISITS
- 63,145 SURGICAL CASES

# UMMS HIGHLIGHTS

## UNIVERSITY OF MARYLAND MEDICAL CENTER

The University of Maryland Medical Center (UMMC) is an 816-bed teaching hospital in Baltimore and the flagship institution of the University of Maryland Medical System (UMMS). UMMC serves as a regional and national referral center for tertiary and quaternary care, with internationally recognized programs in trauma, cancer care, cardiac care, neurocare, women's and children's health, and organ and tissue transplantation.

UMMC has grown significantly in national prominence over the last several years. To note:

- In 2012, a team of plastic and reconstructive surgeons made history by performing the most extensive full-face transplant in the world at the R Adams Cowley Shock Trauma Center.
- In May of 2013, transplant surgeons within the multidisciplinary University of Maryland Liver Center performed a liver transplant on a 49-year-old patient with hilar cholangiocarcinoma — a rare, often-lethal bile duct cancer — a first in Maryland.
- Patients with coronary artery disease who undergo treatment at UMMC now can receive long-term therapy based on information found in their genes. UMMC offers genetic testing to help doctors determine which medication a patient should take after a stenting procedure in order to prevent blood clots that could lead to potentially fatal heart attacks and strokes.

### Accepting Transfers from Across the Region

UMMC is a regional referral center for critical care, with 10 specialized intensive/critical care units and a

total of 168 ICU beds and 40 neonatal intensive care bassinets. Each unit is staffed by intensivists, nurses and other professionals with specialized training. Last year, hospitals across the region transferred more than 11,000 patients to UMMC so they could receive specialized care.

The new Shock Trauma Critical Care Tower — nearing completion at the end of 2013 — began operating its new surgical suites and some units this year. One innovative new unit is the Critical Care Resuscitation Unit, where newly transferred patients are evaluated.

### A Leader in Patient Safety and Quality of Care

UMMC is one of only two hospitals in the US — and the only one on the East Coast — to be named a “Top Hospital” by the prestigious Leapfrog Group every year since 2006.

UMMC made the *U.S. News & World Report* “Best Hospitals” list in five specialty areas during 2013, rated among the top 50 in the categories of Cancer; Ear, Nose and Throat; Gynecology; Nephrology; and Urology. Only 3 percent of more than 5,000 hospitals reviewed for the rankings have even one specialty area ranked in the Top 50.

The Cardiac Care Unit has received the prestigious Beacon Award for Excellence three times in a row since 2009, and is currently recognized at the “Silver” level of this honor from the American Association of Critical-Care Nurses.

A leader in environmental stewardship in the health care industry, UMMC received the 2013 Partner for Change with Distinction award from Practice Greenhealth, a national organization focused on integrating sustainable practices to enhance patient safety and the quality of care.

### THE UNIVERSITY OF MARYLAND MEDICAL CENTER INCLUDES:

- The R Adams Cowley Shock Trauma Center, the first and only integrated trauma and critical care hospital in the country
- The Marlene and Stewart Greenebaum Cancer Center, one of only 67 National Cancer Institute-designated cancer centers in the country
- The University of Maryland Children's Hospital, which provides the highest levels of care, including a Level IIIC Neonatal Intensive Care Unit
- The University of Maryland Heart Center, whose services range from preventive cardiology to heart and lung transplants and advanced mechanical device support for some of the sickest patients in the country
- The UMMC Division of Transplantation, the second-largest kidney transplant program in the country and the largest liver transplant program in Maryland.



22 South Greene Street  
Baltimore, MD 21201  
[umm.edu](http://umm.edu)



# UMMS HIGHLIGHTS

## UNIVERSITY OF MARYLAND BALTIMORE WASHINGTON MEDICAL CENTER

University of Maryland Baltimore Washington Medical Center (UM BWMC) offers high-quality care and services to people in the Baltimore-Washington corridor. Since joining the University of Maryland Medical System (UMMS) in 2000, the 319-bed medical center in Glen Burnie, Md., has continually grown to meet the needs of the community. Complex surgeries now are performed in high-tech surgical suites, cancer is fought with cutting-edge linear accelerators to deliver radiation with pinpoint accuracy, and heart disease is treated by an award-winning inpatient team.

During the past year, the medical center participated in new and innovative endeavors and marked a major milestone. In August 2012, UM BWMC went live with its new electronic medical records system, *Portfolio*, digitally integrating all of its inpatient and outpatient offices. Whether a patient is admitted to UM BWMC or receives care as an outpatient, his or her physician will have access to important information, such as medical history, allergies, current medications and lab results. This information is secure and protected, making *Portfolio* efficient and safe. In the future, patients will be able to view their own test results, request prescription refills and ask questions of their provider by using this technology. The sophisticated system eventually will be available at all UMMS hospitals, allowing patients to experience a seamless continuum of care.

The Tate Cancer Center marked its 10th anniversary in March of 2013. Since its opening, the team of medical professionals has treated more than 7,200 patients. The center is affiliated with the University of Maryland Marlene and Stewart Greenebaum Cancer Center (UMGCC), and employs a team of 20 physicians and 70 medical professionals. The center uses state-of-the-art technology including a PET/CT scanner, the Calypso® 4D Localization System and the new Trilogy® linear accelerator, which administers radiation therapy to many types of cancer. Every patient at the center receives an individualized treatment plan. A multidisciplinary team — including surgeons, medical and radiation oncologists, pathologists and other health care professionals — collaborates to develop the most appropriate and



effective strategy for care. The center also provides access to support services such as genetic counseling and cancer support groups. Clinical trials are offered in partnership with UMGCC.

UM BWMC reaches far beyond its campus. The medical center continues to remain a strong presence in the community by providing services throughout Anne Arundel County. Physicians, nurses and health educators offer flu shots, blood-pressure checks and free vascular screenings. They also teach breastfeeding classes and offer resources to prostate cancer support groups. UM BWMC is also a leader in the Healthy Anne Arundel Coalition. This coalition comprises health care providers and payers, community-based partners, area businesses and academic partners. The purpose of the coalition is to prioritize, develop and implement strategies to improve public health in Anne Arundel County.

Quality is a cornerstone of UM BWMC and its 2,800 employees and 650-member medical staff. The medical center has received many awards from local and national organizations recognizing high-quality patient care. These include the Delmarva Foundation for Medical Care's Excellence Award for Quality Improvement and the American College of Cardiology Foundation's NCDR ACTION Registry-GWTG Platinum Performance Achievement Award, which recognizes BWMC's commitment and success in implementing a higher standard of care for heart attack patients.

301 Hospital Drive  
Glen Burnie, MD 210614  
**MyBWMC.org**



## UMMS HIGHLIGHTS

### UNIVERSITY OF MARYLAND CHARLES REGIONAL MEDICAL CENTER (FORMERLY CIVISTA HEALTH)

Civista Medical Center began operating under a new name — University of Maryland Charles Regional Medical Center — on July 1, 2013.

As the next step in the partnership with University of Maryland Medical System (UMMS), University of Maryland Charles Regional Medical Center (UM CRMC) has taken a name that conveys the longstanding history of the hospital in the Charles County community. The name also reflects the access UM CRMC can provide to patients as part of an extensive network of advanced health services and research through its affiliation with the University of Maryland Medical Center.

The hospital was originally founded by dedicated Charles County physicians who saw the need for a local hospital after the devastating tornado of 1926 that killed 16 people. Nearly 90 years later, the Charles County and Southern Maryland region is experiencing significant growth.

#### **Growing Medical Community**

Over the last year, UM CRMC has continued to expand to meet the needs of the community it serves. University of Maryland Charles Regional Surgical Care and University of Maryland Charles Regional ENT opened in the fall of 2012. Working with UMMS Physician Recruitment Services, UM CRMC successfully recruited seven new physicians to these practices and to other community physician practices in the area the hospital serves.

#### **Increased Emergency Department Capacity**

The Emergency Department (ED) has seen rapid growth in both volume and capacity in FY 2013. Volumes have increased 5 percent during FY 2013 with more than 55,000 visits. To improve the patient experience and accommodate the increased volumes, the ED added a new rapid medical-exam process during peak hours. Expanded capacity was addressed through renovations to add four additional treatment rooms for a total of 38. The expansion reduces patient waiting time and provides quicker access to lab and imaging services.

#### **Laboratory Renovations**

Major renovations expanded UM Charles Regional's laboratory to improve efficiency and meet the growth in patient volumes. Years of planning the multi-phase project came to fruition as the hospital's numerous labs were renovated into a modern, open "core lab" configuration, allowing space for the technicians to function more efficiently and more effectively. Additionally, the newly expanded microbiology area and the redesigned histopathology area improve work flow and overall safety.

#### **Community Commitment to Blood Drives**

In successful partnership with three local organizations, UM CRMC increased the outreach for blood drives by 4 percent this year. Drives located at two local churches and the American Legion provide county residents with broad access to the donation sites, increasing participation and availability of blood products for the community.



5 Garrett Ave.  
La Plata, MD 20646  
[CharlesRegional.org](http://CharlesRegional.org)



# UMMS HIGHLIGHTS

## UNIVERSITY OF MARYLAND MEDICAL CENTER MIDTOWN CAMPUS (FORMERLY MARYLAND GENERAL HOSPITAL)

On June 6, 2013, Maryland General Hospital (MGH) changed its name to University of Maryland Medical Center Midtown Campus to reflect its expanded partnership with the University of Maryland Medical Center (UMMC) university campus, located just one mile away.

Greater integration with UMMC gives UMMC Midtown Campus the opportunity to focus on innovative ways to deliver primary and secondary care to residents of Baltimore, while partnering with UMMC for more complex care. Moving forward, UMMC Midtown Campus will also become the home of the University of Maryland Center for Diabetes and Endocrinology.

### Award-Winning Patient Care

UMMC Midtown Campus staff earned recognition this year for patient safety and quality of care. For the second year in a row, the hospital received the Delmarva Foundation Excellence Award for Quality Improvement from the Delmarva Foundation for Medical Care (DFMC), which is the Medicare Quality Improvement Organization for Maryland. The award honors individual hospitals that excel in patient safety and quality improvement. To qualify, a hospital must meet specific performance improvement criteria on 18 measures in four inpatient clinical areas: acute myocardial infarction (heart attack), heart failure, surgical care improvement and pneumonia.

UMMC Midtown Campus also received the Press Ganey Top Improver Award for continuous improvement of clinical measures performance.

In March 2013, the UMMC Midtown Campus stroke program received the Gold level Performance Achievement Award from the American Heart Association / American Stroke Association Get with the Guidelines program for the second year in a row.

In May 2013, the Intensive Care Unit was recognized for the second time this fiscal year by the Maryland Hospital Association for having zero central line-associated bloodstream infections (CLABSI) and zero catheter-associated urinary tract infections (CAUTI) for a one-year period.



### New Post-Acute Specialty Programs

UMMC Midtown Campus was part of the relocation plan for inpatient services from the now-closed University Specialty Hospital. UMMC Midtown Campus expanded to provide 60 Post-Acute Specialty Program beds — a 40-bed chronic medical-surgical unit and a 20-bed pulmonary care unit.

### New Outpatient Practices

UMMC Midtown Campus was expanded to include four new outpatient programs:

- Pediatrics at Midtown provides comprehensive primary care to children from birth to age 21. The clinic covers all aspects of care, from annual check-ups and preventive care, to treating children with medically complex conditions.
- The University of Maryland Walter P. Carter/Carruthers Clinic provides comprehensive mental health treatment and case management services to children, adolescents and adults.
- The new state-of-the-art University of Maryland Sleep Disorders Laboratory conducts overnight and daytime sleep studies to help diagnose a wide range of sleep disorders, from insomnia and sleep apnea to snoring, narcolepsy, night terrors and sleepwalking.
- The Amyotrophic Lateral Sclerosis (Lou Gehrig's disease) Clinic offers a comprehensive approach to care. It is one of only two university-based programs available in Maryland offering monthly clinics where patients can see their neurologist, pulmonologist, nutritionist, and physical, occupational, speech, and respiratory therapists all in one day.

827 Linden Ave.  
Baltimore, MD 21201  
[UMM.edu/Midtown](http://UMM.edu/Midtown)



## UMMS HIGHLIGHTS

### UNIVERSITY OF MARYLAND REHABILITATION & ORTHOPAEDIC INSTITUTE (FORMERLY KERNAN ORTHOPAEDICS AND REHABILITATION)

Kernan Orthopaedics and Rehabilitation officially became the University of Maryland Rehabilitation & Orthopaedic Institute on July 1, 2013.

Founded 115 years ago by Baltimore philanthropist James Lawrence Kernan, the University of Maryland Rehabilitation & Orthopaedic Institute was the first orthopaedic specialty hospital in the state and is now the largest inpatient rehabilitation hospital and provider of rehabilitation services in Maryland. With 144 beds, this specialty hospital offers the most advanced care in physical rehabilitation and orthopaedic surgery for adults throughout the region.

UM Rehabilitation & Orthopaedic Institute is an integral component of the University of Maryland Medical System (UMMS) and its continuum of care. The highly specialized staff provides an interdisciplinary program of care for patients in a beautiful, restorative environment.

As a member of UMMS, the hospital provides patients with: access to faculty physicians from the University of Maryland School of Medicine; innovative treatment modalities and research in the areas of stroke, spinal cord and brain injury; physical, occupational and speech therapy; and orthopaedic surgery. Specialty programs include rheumatology, multiple sclerosis, Parkinson's disease and other neurodegenerative disorders. The broad range of outpatient services includes the University of Maryland Pain Management Center and the University of Maryland Center for Integrative Medicine.

Patients also have access to state-of-the-art rehabilitation technologies. The hospital recently became the first in the nation to offer a new dynamic body-weight support system for patients with gait function issues following neurologic and orthopaedic injuries. The UM Rehabilitation & Orthopaedic Institute is also the only facility in Maryland to use a new exoskeleton technology that assists spinal cord injury patients with enhanced trunk control, neural connections, pressure relief and gastrointestinal function.

Other cutting-edge techniques include a robotic treadmill designed for patients recovering from spinal cord injuries and stroke.

Through the Rehabilitation Research Center at UM Rehabilitation & Orthopaedic Institute, faculty from the School of Medicine have been collaborating on innovative research focused on treatments and technologies to improve the lives of patients recovering from serious injuries. The approach emphasizes that rehabilitation is a life-long journey and prepares patients for maximal independence upon discharge. The emphasis on "restoration" includes a beautiful healing garden and an expanding adaptive sports and recreational program.

As part of its profound commitment to innovation, the UM Rehabilitation & Orthopaedic Institute has joined the other 11 UMMS hospitals in the development of a network of rehabilitation centers throughout the state known as the University of Maryland Rehabilitation Network. Over this past year, the framework and initial infrastructure were developed with input and participation from all member hospitals. This initiative will foster significant integration and collaboration to standardize best-in-class quality and service delivery in rehabilitation and therapy services across the Medical System.

Physicians and staff at UM Rehabilitation & Orthopaedic Institute will play a key role in the UMMS initiative through their leadership in neurologic disorders, musculoskeletal disease, joint replacement, sports injury and dental services.

2200 Kernan Drive  
Baltimore, MD 21207  
[UMRehabOrtho.org](http://UMRehabOrtho.org)





# UMMS HIGHLIGHTS

## UNIVERSITY OF MARYLAND ST. JOSEPH MEDICAL CENTER

University of Maryland St. Joseph Medical Center, located in Towson, Md., is a 232-bed, acute care hospital that became the newest member of the University of Maryland Medical System on December 1, 2012. UM St. Joseph has a rich heritage of providing loving service and compassionate care since its founding in 1864 by the Sisters of St. Francis of Philadelphia. Its Catholic heritage ever-present, the medical center today boasts a wide range of superb clinical programs and centers of excellence, including the Cancer, Heart and Orthopaedic institutes, Women and Children's services and emergency medicine.

The Heart Institute provides a complete continuum of cardiac care, including open heart surgery, a cardiac surgery unit, an all-digital cardiac catheterization laboratory, cardiographics featuring an accredited echo laboratory, electrophysiology lab, nuclear medicine, 20-bed cardiac unit, hospital-wide monitoring capabilities and a cardiovascular fitness program.

Featuring a true multidisciplinary approach to cancer care, the UM St. Joseph Cancer Institute includes radiation oncology, the Breast Center, urologic oncology, thoracic oncology, colorectal oncology (including ostomy care) and orthopaedic oncology. The Cancer Institute is accredited with commendation as a comprehensive community cancer center by the American College of Surgeons Commission on Cancer. Most recently, the medical center completed renovations to open a dedicated inpatient oncology unit designed to meet the needs of cancer patients and their families.



The Orthopaedic Institute has been named one of the nation's top orthopaedic facilities by *U.S. News & World Report* and designated a Blue Distinction Center in the categories for hip, knee and spine surgery by CareFirst BlueCross BlueShield. The institute includes the Scoliosis and Spine Center and Spine Research Lab, and offers sports medicine, joint replacement, spine surgery, complex disc replacement, upper extremity surgery and foot and ankle surgery. The state-of-the-art 50-bed Orthopaedic Unit includes 32 private rooms and a rehabilitation facility.

The Family Childbirth Center includes nine labor, delivery and recovery suites; Mother/Baby Suite of 20 private postpartum rooms; full-term nursery and Level III+ Neonatal Intensive Care Unit (NICU). The Perinatal Center offers high-risk obstetrical services for patients with diabetes or kidney disease, multiple pregnancies and advanced maternal age; obstetric ultrasound in an AIUM-accredited practice; genetic counseling; prenatal diagnosis and testing for fetal well-being.

The Emergency Department is staffed by specially trained physicians and nurses, providing emergency treatment for more than 45,000 patients per year.

UM St. Joseph also includes the University of Maryland St. Joseph Medical Group, more than 100 physicians and mid-level practitioners who are aligned with UM St. Joseph Medical Center to offer the community a solid foundation of primary and specialty care and various specialties.

7601 Osler Drive  
Towson, MD 21204  
[StJosephTowson.com](http://StJosephTowson.com)



## UMMS HIGHLIGHTS

### UNIVERSITY OF MARYLAND SHORE REGIONAL HEALTH (FORMERLY SHORE HEALTH AND CHESTER RIVER HEALTH)

During the 2013 fiscal year, two esteemed health care organizations that had joined the University of Maryland Medical System separately several years ago conducted a study on regionalizing their services to better serve Maryland's Mid-Shore region. After months of study and community input, the boards of Shore Health and Chester River Health decided to merge on July 1, 2013, to form University of Maryland Shore Regional Health.

The consolidation created a regionalized, coordinated network providing comprehensive health care services to the Mid-Shore residents of Caroline, Dorchester, Kent, Queen Anne's and Talbot counties, as well as continued affiliation with the University of Maryland Medical Center for patients who need more complex care. The Regionalization Study Committee included board members and administrative leaders from both organizations. The committee's recommendation cited advantages of consolidation that included greater efficiency and shared resources, expanded access to care and the ability to increase community health education and disease prevention.

#### Coordinated Health Care Network

UM Shore Regional Health now operates hospitals in Cambridge, Chestertown and Easton; a freestanding emergency center and adjacent medical pavilion in Queenstown; a skilled nursing and rehabilitation center in Chestertown; and outpatient care and diagnostic centers in Cambridge, Centreville, Denton and Easton. Home care and hospice services will be continued throughout the region.

The 132-bed University of Maryland Shore Medical Center at Easton (formerly Memorial Hospital), the 41-bed University of Maryland Shore Medical Center at Dorchester (formerly Dorchester General Hospital) and the 41-bed University of Maryland Medical Center at Chestertown (formerly Chester River Hospital) provide high-quality inpatient and outpatient services, including specialty care, emergency services, diagnostic and imaging services and comprehensive medical rehabilitation.

The University of Maryland Shore Emergency Center at Queenstown (formerly Queen Anne's Emergency Center) provides 24-hour-a-day access to treatment by board-certified emergency medicine physicians, experienced nurses, radiology technicians and medical technologists.

UM Shore Regional Health also includes University of Maryland Shore Nursing and Rehabilitation Center at Chestertown, Chester River Home Care & Hospice and a network of outpatient services, including physicians in primary care as well as in specialties including breast health, cardiology, endocrinology, general surgery, ENT, women's health, neurosurgery, neurology, pediatrics, urology and wound care.

#### Expanding to Meet the Region's Needs

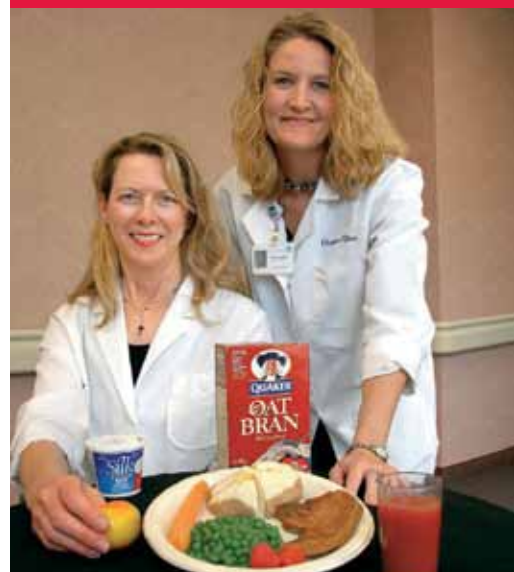
To meet the needs of patients with mental health and substance abuse issues, UM Shore Medical Center at Dorchester completed a \$2.5 million renovation that expanded and enhanced the size and scope of Shore Behavioral Health to 24 beds.

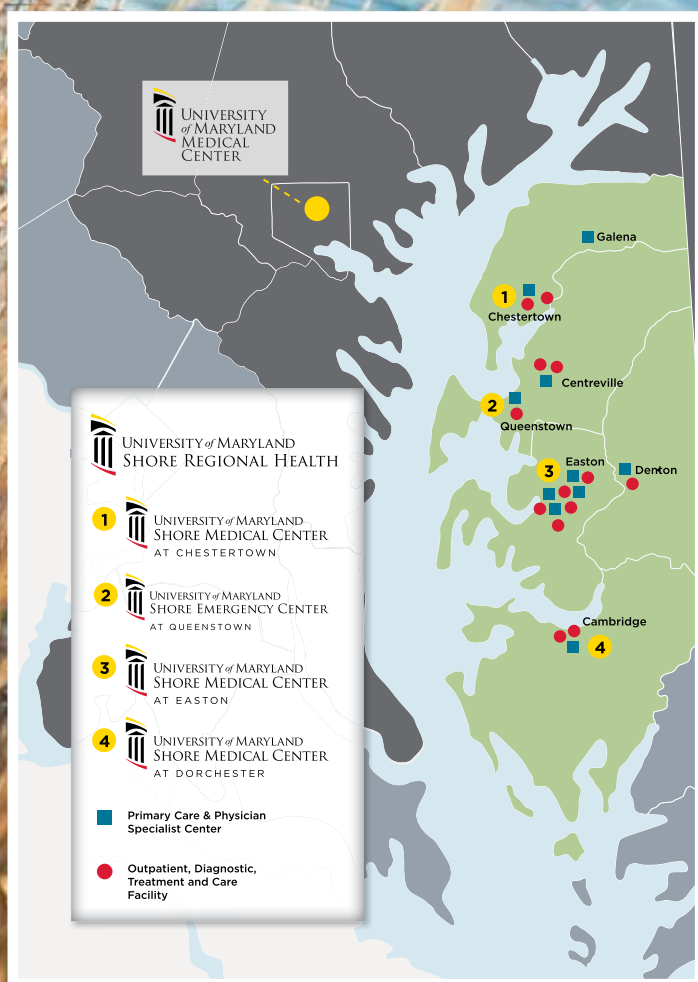
A new lobby and entrance was completed for UM Shore Medical Center at Chestertown, part of a \$4.3 million project that also will include a new Emergency Department and is funded in part by a grant of \$900,000 from the State of Maryland.

#### Award-Winning Care

For the second time, UM Shore Medical Center at Easton has earned the Gold Plus Award from the American Heart Association and American Stroke Association, won renewed designation as a Primary Stroke Center from the Maryland Institute for Emergency Medical Services Systems and has achieved Magnet designation for nursing excellence.

Members of the Surgical and Ambulatory Services Team at UM Shore Medical Center at Dorchester were named *ADVANCE for Nurses* 2012 Best Nursing Team for the Mid-Atlantic and Lower Great Lakes Region. The team was nominated for this recognition as a result of its efforts to get the hospital back up and running in the aftermath of Hurricane Irene.





219 South Washington Street  
Easton, MD 21601  
[www.ShoreHealth.org](http://www.ShoreHealth.org)

**JANE WANG, MD**, is the medical director of the University of Maryland Shore Emergency Center at Queenstown and clinical instructor in the Department of Emergency Medicine at the University of Maryland School of Medicine.

## UMMS HIGHLIGHTS

### MT. WASHINGTON PEDIATRIC HOSPITAL



Mt. Washington Pediatric Hospital in Baltimore is a 102-bed specialty hospital dedicated to offering sophisticated medical care to children in a family-friendly environment so they can heal, go home stronger and lead more independent lives. The hospital is jointly owned and operated by the University of Maryland Medical System and the Johns Hopkins Health System.

Fiscal 2013 was a big year for Mt. Washington, which opened its expanded Center for Neonatal Transitional Care (CNTC) — the only facility of its kind in the Mid-Atlantic region. As newborn patients become stable enough, they transition from the Neonatal Intensive Care Unit (NICU) at the University of Maryland Medical Center and other acute care facilities to the nursery at the CNTC. For the next several weeks or months, neonatologists, pediatricians and other specialists help the babies and their families focus on feeding and growing, and then on training and planning for life after they are discharged.

The upgrade to this unit answered the region's growing demand for neonatal transitional care. It enables clinicians and related staff to serve an additional 100 premature infants and low-birth-weight babies a year. Some of the new features include larger state-of-the-art patient rooms to accommodate more medically complex patients who require large equipment such as ventilators, as well as family lounges, lactation rooms and overnight caregiver suites. With the upgrade, the CNTC is projected to meet the needs of 600 babies a year.

The CNTC upgrade was part of a \$9.2 million capital campaign that included a complete redesign and renovation of Mt. Washington Pediatric Hospital's main entrance and lobby. The new entrance includes a covered walkway to protect patients, families and medical transport personnel from bad weather as they come and go from the hospital. Once inside, they are welcomed by a modern, playful and colorful new lobby, filled with eye-catching bubble tubes with ever-changing hues and an interactive game wall that kids of all ages are finding immensely entertaining.

Other highlights of the past year include the hospital making the annual *Becker's Hospital Review* list of "100 Great Places to Work in Healthcare," and achieving coveted Stage 6 status for the adoption of electronic medical records by HIMSS Analytics.

The new Center for Nutritional Rehabilitation gained more attention for its services to children from infancy through adolescence who have medical conditions and nutritional concerns. Children referred to the program for evaluation and treatment include those with conditions such as diabetes types 1 and 2, failure to thrive or poor growth, childhood obesity, high cholesterol, metabolic syndrome, celiac disease, food allergies or intolerances and more. After an initial evaluation, patients may be referred to one of a number of programs such as the Feeding Day Program, Endocrinology, Weigh Smart® or Weigh Smart® Jr., Nutrition and the Diabetes Clinic.

1708 W. Rogers Avenue  
Baltimore, MD 21209  
[MWPH.org](http://MWPH.org)



# UMMS HIGHLIGHTS

## UPPER CHESAPEAKE HEALTH

For the past century, Upper Chesapeake Health (UCH) has offered the residents of northeastern Maryland an unparalleled combination of award-winning clinical expertise, leading-edge technology and an exceptional patient experience. Our vision is to become the preferred, integrated health care system creating the healthiest community in Maryland. UCH began a partnership with the University of Maryland Medical System in July 2009 in order to continue a commitment to provide its growing community with expanded clinical services, programs, facilities and physician recruitment.

Upper Chesapeake Health includes two acute care, not-for-profit hospitals — Upper Chesapeake Medical Center in Bel Air and Harford Memorial Hospital in Havre de Grace. UCH also operates the Upper Chesapeake Health Foundation, the Klein Ambulatory Care Center, two medical office buildings on its Bel Air campus and the Senator Bob Hooper House, a residential hospice facility in Forest Hill.

Both UCH hospitals were awarded the 2013 Delmarva Foundation Excellence Award for Quality Improvement. This award honors hospitals that excel in patient safety and quality improvement. To receive the award, a hospital must meet specific performance improvement criteria on 14 measures in four inpatient clinical areas: acute myocardial infarction (heart attack), heart failure, surgical care improvement and pneumonia.

Upper Chesapeake Health continued to expand its oncology services this year in preparation for the opening of the Patricia D. and M. Scot Kaufman Cancer Center on its Bel Air campus (Kaufman Cancer Center). **Philip Nivatpumin, MD**, was named new medical director for the Kaufman Cancer Center and will lead the continued development of its program offerings, in affiliation with the University of Maryland Marlene and Stewart Greenebaum Cancer Center. Radiation oncology services at the Kaufman Cancer Center will be developed by **Navesh K. Sharma, DO, PhD**, the new medical director of the radiation oncology program and assistant professor of radiation oncology at the University of Maryland School of Medicine. In his

new position, Dr. Sharma will develop a robust clinical program at the Radiation Therapy Center with the development of state-of-the-art technologic offerings, including brachytherapy and stereotactic radiation services.

### Multidisciplinary Breast and Lung Clinics

Multidisciplinary clinics bring together a range of cancer diagnostic and treatment specialists in one clinic visit to provide individuals with a complete treatment plan in a coordinated and timely manner. Multidisciplinary clinics for lung and breast cancer are well established at Upper Chesapeake Medical Center and will move to the Kaufman Cancer Center in the fall of 2013. Other clinics are expected to be added in the future for lymphomas and head and neck cancers.

Upper Chesapeake Health's partnership with the University of Maryland Marlene and Stewart Greenebaum Cancer Center offers other valuable services for cancer treatment, including access to clinical trials, genetic counseling, complete radiation oncology treatment on the campus of Upper Chesapeake Medical Center and collaborative consultations with cancer sub-specialists from the University of Maryland School of Medicine. The Kaufman Cancer Center will continue to expand to include treatments for all types of cancer.

The University of Maryland Faculty Physicians Inc. practice has offices in Pavilion II at Upper Chesapeake Medical Center in Bel Air. A wide variety of pediatric and adult specialists see patients in this office for services ranging from adult endocrinology, cardiology and urology to pediatric pulmonology, gastroenterology and otorhinolaryngology.

Upper Chesapeake Medical Center  
500 Upper Chesapeake Drive  
Bel Air, MD 21014

Harford Memorial Hospital  
501 South Union Avenue  
Havre de Grace, MD 21078

[www.UCHS.org](http://www.UCHS.org)



# UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE

## FACULTY 2,905

- 1,370 Full-time
- 299 Part-time
- 1,236 Adjunct

## STAFF 2,936

- Administrative, Research & Clinical Staff, including University of Maryland Faculty Physicians, Inc.

## STUDENTS 1,344

- 647 Medical (MD)
- 39 MD/PhD
- 357 Graduate (MS/PhD)
- 12 Genetic Counseling (MS)
- 59 Medical & Research Technology (BS, MS)
- 180 Physical Therapy (DPT, PhD)
- 50 Public Health (MPH)

## POST-DOCTORAL FELLOWS 574

- 227 Clinical
- 347 Research

## RESIDENTS 637

- Trained by SOM Faculty

# FINANCIAL

## OUR INCOME

Tuition and Fees	\$ 27,891,917
State Appropriation	41,935,283
Total Grants and Contracts	370,441,733
Gifts, Endowments and Other Expenses	14,103,526
Medical Service Plan	257,100,000
Reimbursements from Affiliated Hospitals	151,431,889
<b>TOTAL</b>	<b>\$862,904,348</b>

## OUR EXPENSES

Instruction/Training	\$ 86,290,435
Research	379,677,913
Clinical Service	361,556,922
General and Administrative	35,379,078
<b>TOTAL</b>	<b>\$862,904,348</b>

UNIVERSITY OF MARYLAND  
MEDICAL SYSTEM

## REPORT

## OUR INCOME

From services to inpatients	\$ 1,801,597,000
From services to outpatients	1,262,167,000
<b>These services produced total gross revenue of</b>	<b>\$3,063,764,000</b>
Less amounts we had to deduct for contractual allowances to third-party payors	(339,294,000)
Less the cost of charity care for persons without the ability to pay for their care and for uncollectible accounts	(262,337,000)
Therefore, our net revenue from patient care services was	2,462,133,000
In addition, our other revenue from operating, including state support, was	109,313,000
<b>Thus, our total revenue from operations was</b>	<b>\$2,571,446,000</b>

## OUR EXPENSES

For salaries, wages and fringe benefits to our employees	\$ 1,295,416,000
For medical supplies, pharmaceuticals and purchased services	1,096,433,000
For depreciation on our buildings and equipment	144,671,000
For interest costs on our outstanding bonds	62,062,000
<b>All of these operating expenses totaled</b>	<b>\$2,598,582,000</b>

## OUR NET RESULTS

Loss from operations	\$ (27,136,000)
Plus non-operating revenue net of expenses, which excludes changes in market value of financial investments	1,009,000
<b>Net income</b>	<b>\$26,127,000</b>

*\*Fiscal Year 2013 figures are unaudited and do not include Upper Chesapeake Health*

# UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE LEADERSHIP

## DEAN

E. Albert Reece, MD, PhD, MBA  
*Vice President for Medical Affairs,  
University of Maryland and  
Dean, School of Medicine*

## SENIOR ASSOCIATE DEANS

Anthony F. Lehman, MD, MSPH  
*Senior Associate Dean, Clinical Affairs*

Richard N. "Robin" Pierson III, MD  
*Senior Associate Dean, Academic Affairs  
and Interim Director, Research Affairs*

## ASSOCIATE DEANS

John W. Ashworth III, MHA  
*Associate Dean, Hospital Networks*

Claudia R. Baquet, MD, MPH  
*Associate Dean, Policy and Planning*

Sharon A. Bowser, MBA  
*Acting Associate Dean, Information Services*

Jerome D. Carr, JD  
*Associate Dean, Business Development  
Senior Advisor to the Dean and University  
of Maryland Faculty Physicians, Inc. (FPI)*

Curt I. Civin, MD  
*Associate Dean, Research*

Brian J. DeFilippis, MS  
*Associate Dean, Development and  
Chief Development Officer and Special  
Assistant to the Dean*

Milford Foxwell, Jr., MD  
*Associate Dean, Admissions*

Nancy Ryan Lowitt, MD, EDM, FACP  
*Associate Dean, Faculty Affairs and  
Professional Development*

David Mallott, MD  
*Associate Dean, Medical Education*

Donna Parker, MD  
*Associate Dean, Student Affairs*

Louisa Peartree, MBA  
*Associate Dean, Finance and Business Affairs  
and Chief Financial Officer*

Gregory Robinson, DMin, MDir, MA  
*Associate Dean, Academic Administration  
and Resource Management*

Alan R. Shuldiner, MD  
*Associate Dean, Personalized and  
Genomic Medicine*

## ASSISTANT DEANS

George T. Fantry, MD  
*Assistant Dean, Student Research  
and Education*

Neda Frayha, MD  
*Assistant Dean, Student Affairs*

Christopher Hardwick, MA  
*Assistant Dean, Public Affairs  
and Communications*

Joseph Martinez, MD  
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