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**INSIGHT**

**FOLLOWING A HUNCH**  
Researchers find that cells collected during a Pap test may screen for cancer in other areas.

# Dome

A publication for the Johns Hopkins Medicine family

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## Homegrown Talent

New institute trains supply chain workers for careers, not jobs.

**J**ESSICA WATERS HAS HER heart set on driving a forklift, perhaps at The Johns Hopkins Hospital. The 23-year-old East Baltimore native has numerous relatives employed across the medical campus and hopes to join them. “I love Johns Hopkins,” she says. “I’ve seen what it’s done for my family.”

Under her teacher’s careful instructions, she climbs into the driver’s seat of a bright yellow forklift truck, disengages the parking brake and shifts the beast into reverse. The familiar, shrill beep-beep fills the warehouse, warning all in Waters’ path to stand back.

*(continued on page 4)*



Supply Chain Institute student Jessica Waters hopes to join her many family members employed by Johns Hopkins. Waters and her classmates are learning the ins and outs of supply chain as part of a partnership between Johns Hopkins and Baltimore City Community College.



Read more about the strategic priority for people online at [hopkinsmedicine.org/strategic\\_plan](http://hopkinsmedicine.org/strategic_plan).

## What's in a Name?

**RONALD R. PETERSON**  
PRESIDENT, THE JOHNS HOPKINS HOSPITAL  
AND HEALTH SYSTEM  
EXECUTIVE VICE PRESIDENT,  
JOHNS HOPKINS MEDICINE

In Shakespeare's *Romeo and Juliet*, Juliet famously ponders: "What's in a name? That which we call a rose/By any other name would smell as sweet." True enough—but the names we apply to things can also have an important, symbolic impact.

That is what happened last month in St. Petersburg, Florida.

All Children's Hospital, a member of Johns Hopkins Medicine was renamed Johns Hopkins All Children's Hospital.

This change provides important affirmation that Johns Hopkins All Children's—which also celebrated its 90th birthday last month—has fully integrated into Johns Hopkins Medicine as our third academic medical center.

The change was proposed by the hospital's 26-member board of directors. Jonathan Ellen, president of Johns Hopkins All Children's, said the directors thought the 259-bed medical and research center was "ready" to be recognized as a Johns Hopkins institution. The new name should help recruit even more first-class faculty members and raise funds needed to advance the already impressive changes that the hospital has undergone in the five years since it joined Johns Hopkins Medicine.

Since the integration process began in 2011, the common goals we share have paved the way for the impact that our combined resources are having on modernizing pediatric medicine, advancing the training of pediatric specialists, and fostering leading-edge research and technology.

In this short half-decade, we have collaborated closely to make significant progress on all of these goals. For example:

- We established four specialized institutes focused on cardiac care; cancer and blood disorders; maternal-fetal and neonatal care; and an Institute for Brain Protection Sciences, enhancing the collaboration between our pediatric neurosurgeons, neurologists, neuro-oncologists and related specialists.
- We broke ground on a new research and education building that will promote discoveries and new treatments for childhood diseases.
- We established an innovative residency program for training future pediatricians.
- We enhanced our focus on quality, safety and outcomes standards.
- Our scientists are engaged in research trials to identify biomarkers that will help us understand the origins of chronic and acute diseases of childhood.
- We opened an accredited biorepository that provides state-of-the-art storage and processing of clinical and research specimens to aid in these studies.
- We expanded All Children's network for collaborative care in west central Florida.

Johns Hopkins All Children's Hospital has embraced these developments enthusiastically. The spirit of collaboration we share enables us to work together to push the boundaries toward more innovative clinical services, scientific discovery and enhanced family-centered care—all to benefit children in Florida and around the world.

None of these accomplishments would have been possible without the dedication and commitment of the Johns Hopkins All Children's staff and physicians. They provide hope, superb care and healthier futures for all children.

As we move forward, Johns Hopkins Medicine and Johns Hopkins All Children's Hospital will continue to reimagine and redefine what excellence in care and research truly mean to the children and families we serve. So what's in a new name? It means a wonderful hospital is poised to become even better. ■



## A Brand's New Day

The newly named Johns Hopkins All Children's Hospital celebrated its 90th anniversary on April 5 with a special event and logo unveiling held for more than 500 hospital supporters, staff members, Johns Hopkins leadership and local community officials. The event also marked the fifth anniversary of the hospital joining Johns Hopkins Medicine to pursue a new level of excellence in medical education, research and clinical care.

Ronald J. Daniels, president of The Johns Hopkins University; Paul B. Rothman, dean of the medical faculty and CEO of Johns Hopkins Medicine; and Ronald R. Peterson, president of The Johns Hopkins Hospital and Health System and executive vice president of Johns Hopkins Medicine, shared their congratulations on the progress made in the past five years. Also speaking was Jonathan Ellen, the hospital's president and vice dean.

The hospital was founded in 1926 as the American Legion Hospital for Crippled Children to care for children with polio and other debilitating disorders. Last month's event acknowledged the hospital's growth over the past nine decades. It also recognized the benefits of becoming a physician-led institution and being part of the Johns Hopkins family, including increased access to collaboration, learning and discovery, along with the draw of top-notch physicians, nurses and research scientists.

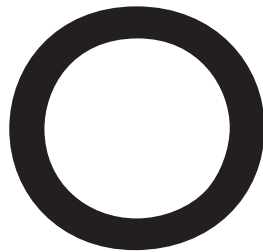
—Karen Steinke



Johns Hopkins Medicine leaders unveil the new sign at Johns Hopkins All Children's Hospital.

## A Rare Gift

Medical volunteers from Johns Hopkins Medicine offer joint replacement surgeries to disadvantaged patients in India.

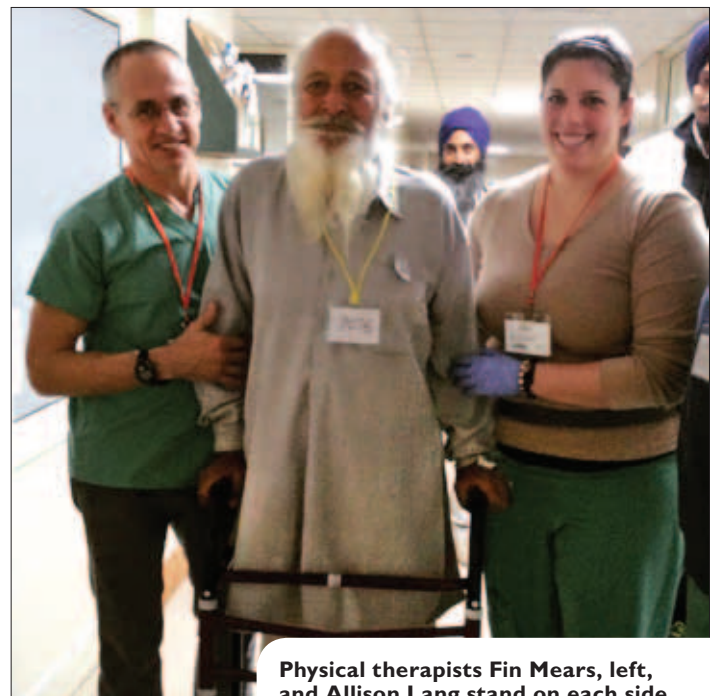


OPERATION WALK MARYLAND, ESTABLISHED BY JOHNS HOPKINS orthopaedic surgeon Harpal "Paul" Khanuja, and his wife, Maria, a nurse practitioner at East Baltimore Medical Center, has provided free hip and knee replacement surgeries to poor patients in Ecuador, El Salvador, India and Peru since 2007.

In January, a team of 49 volunteers accomplished 59 joint replacement surgeries on 47 needy residents of Ludhiana, India. As chief of adult reconstruction for Johns Hopkins and director of orthopaedic surgery at Johns Hopkins Bayview Medical Center, Khanuja expanded his existing team of Johns Hopkins Bayview clinicians to include physicians, nurses and technicians from The Johns Hopkins Hospital, Suburban Hospital and Johns Hopkins Community Physicians, as well as other area hospitals. All told, 21 Johns Hopkins employees participated in the 10-day trip.

The surgeries were performed at Dayanand Medical College & Hospital, where the Operation Walk Maryland team screened and operated on patients for the first three days and began to rehabilitate them over the following three days. "At six weeks, all patients had been seen by our orthopaedic surgeon in India, and there were no issues," Khanuja says. "These trips are an opportunity to really make an impact. We go there as a team and work together toward a common goal to offer excellent care. The patients are truly needy and are so appreciative of the help they receive. Our reward is sincere gratitude for our skills."

—Kristin Mears



Physical therapists Fin Mears, left, and Allison Lang stand on each side of a patient after a successful bilateral knee replacement.



Learn more about Operation Walk Maryland and the Johns Hopkins team at [hopkinsmedicine.org/dome](http://hopkinsmedicine.org/dome).

# Circles of Biodiversity and Conservancy

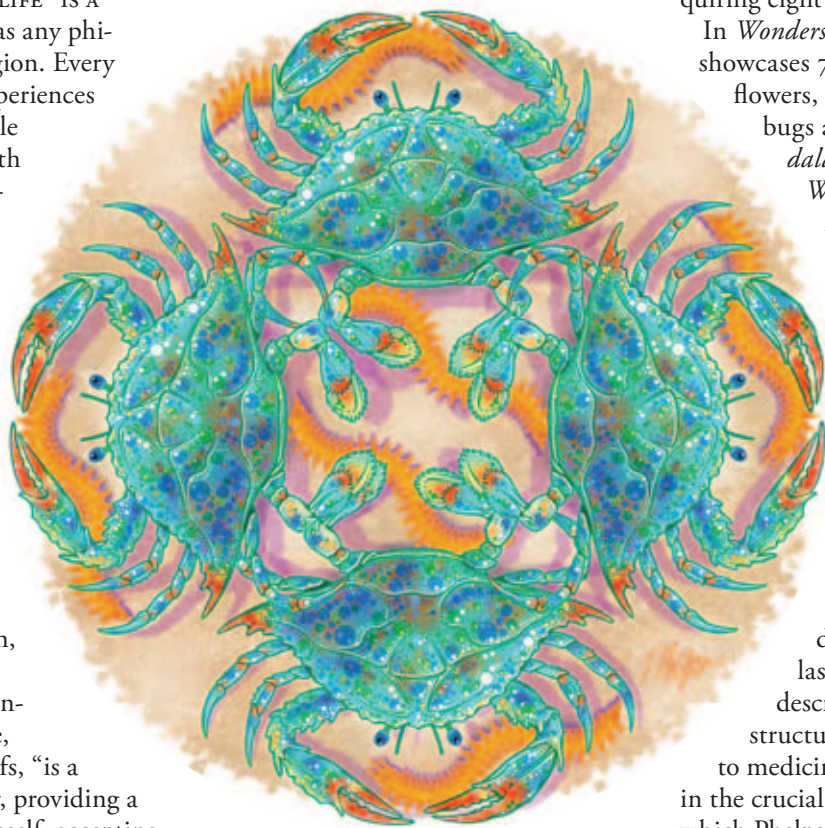
An award-winning Johns Hopkins medical illustrator celebrates nature's abundant, and fragile, beauty.

THE "CIRCLE OF LIFE" IS A concept as old as any philosophy or religion. Every living thing experiences a perpetual cycle of birth, existence and death that nurtures the next generation, which repeats it, *ad infinitum*.

As medical illustrator Tim Phelps observes in the first volume of his biodiversity-celebrating circular artworks, *Nature Mandalas: Wonders of the Garden* (Schiffer, 2016), the word "mandala" is Sanskrit for "circle." A second volume pays tribute to the wonders of the earth, wind and sea.

The mandala, a round centerpiece of Hindu, Chinese, Japanese and Tibetan beliefs, "is a symbol of one's own center, providing a path for understanding oneself, accepting oneself, feeling comfortable with oneself and completing life with oneself," writes Phelps, a professor and assistant director in the school of medicine's Department of Art as Applied to Medicine.

His digitally created mandalas of nature combine realism and symbolism. Direct scientific observation and study of the depicted organisms form the founda-



A portrait of Maryland's celebrated blue crabs is among dozens of nature mandalas by artist Tim Phelps.

tions of the representational aspect of each piece. The entire project, initially not planned for publication but produced purely for Phelps' pleasure, took more than three years, with each mandala re-

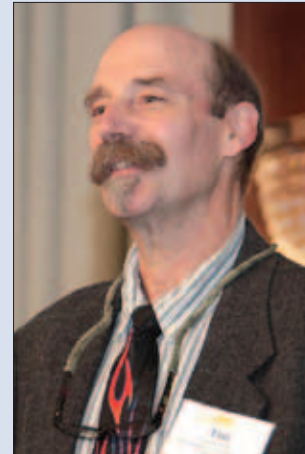
quiring eight to 10 hours to create.

In *Wonders of the Garden*, Phelps showcases 72 mandalas that depict flowers, butterflies, moths, beetles, bugs and spiders. *Nature Mandalas: Wonders of the Earth, Wind, and Sea* features 70 mandalas of reef and sea creatures, fish, amphibians, reptiles and birds, as well as a few reflecting on "completing the circle," with images symbolizing death, the Latin American Day of the Dead, and various totems and Native American medicine bundles.

The plants and animals depicted in these mandalas are accompanied by his descriptions of their form and structure, habitat, importance to medicine and science, and role in the crucial conservation mission for which Phelps is an eloquent advocate. He writes, "By recognizing, embracing and conserving nature's circles of life, we can create reciprocal ripples that have a profound effect on the meaning and gift of life on our earth."

—Neil A. Grauer

To see more mandalas, visit [hopkinsmedicine.org/dome](http://hopkinsmedicine.org/dome).



Tim Phelps is a professor and medical illustrator in the graduate program in the Department of Art as Applied to Medicine. During his 30 years at The Johns Hopkins University, he has won more than 40 awards, including the 2015 Max Broedel Award for Excellence in Education from the Association of Medical Illustrators. Projects have included books on otolaryngology, orthopaedic and cardiac surgery, and co-authorship of *Surgical Pathology Dissection*.

## Q&A with Robert Kasdin

**Robert Kasdin** joined Johns Hopkins Medicine on July 1, 2015, as its first senior vice president and chief operating officer. He is responsible for overall operations, including strategic direction.

Kasdin came to Johns Hopkins from Columbia University, where he had served since 2002 as senior executive vice president. He previously held leadership roles at the University of Michigan, Princeton University and the Metropolitan Museum of Art. He is a member of the Council on Foreign Relations.

*Dome* spoke with Kasdin about the opportunities and challenges ahead, and about the Johns Hopkins values that inspire him.

**"JOHNS HOPKINS MEDICINE HAS AN EXTRAORDINARY HISTORY AND CULTURE. THE VALUES THAT MARK ALMOST EVERY CONVERSATION CENTER ON SERVICE TO PATIENTS AND THEIR FAMILIES."**

—ROBERT KASDIN

**Q: What drew you to Johns Hopkins Medicine?**

A: At this moment, academic medical centers across the country are under increasing financial pressures. I believe that Johns Hopkins Medicine, one of the most important mission-driven systems in the country, could lead the way in finding a successful long-term model to address the needs of its patients and continue to lead in research and in education, all while pursuing a financially sustainable model.

**Q: What are the challenges and opportunities the changing health care landscape will bring to Johns Hopkins Medicine over the next five years?**

A: We have, on all government levels, rapidly evolving reimbursement regimes and regulations that will compel health care providers to continue to modify the way we deliver services to patients. That means we are focusing more than ever on value, population health and controlling controllable expenses.

Johns Hopkins Medicine should continue its efforts to become an integrated health care provider that further integrates our academic division

hospitals and community hospitals, ambulatory sites, primary care physicians and home care to provide high-value and effective health care in the right setting for the right patients in a timely fashion. I believe that home care, in particular, will be an increasingly important part of population health strategy as the population ages.

**Q: Your mission includes improving operational efficiencies and decision-making processes. Tell us a bit about what this means and how you will do it.**

A: The leadership team at Johns Hopkins Medicine will continue to make evidence-based decisions. That requires fact-gathering, careful analysis and proper framing of questions. It's crucial to identify questions that are truly important because of their implications to people and their health, and to the financial resilience of Johns Hopkins Medicine.

**Q: What was your first order of business when you started work here 10 months ago?**

A: Really listening—understanding our culture and, more particularly, my colleagues, their needs and the challenges we all confront in marshaling the vast resources, both human and otherwise, that we can draw upon to advance patient care, research and education.

**Q: What have you learned as you have become more familiar with the institution?**

A: Johns Hopkins Medicine has an extraordinary history and culture. The values that mark almost every conversation center on service to patients and their families. That is remarkable and makes Johns Hopkins Medicine worthy of everyone's best efforts.

—Reported by Karen Nitkin



## Homegrown Talent

(continued from page 1)



**Darrien Porter** tries his hand at forklift training as his classmates look on and encourage him.

She and nine classmates are the first-ever students of the Supply Chain Institute, a job training partnership between Johns Hopkins and Baltimore City Community College. They'll all take a turn on the forklift today, though not all share Waters' enthusiasm for industrial machinery. Instead, they can choose to pursue other tracks the program offers, such as logistics and occupational safety.

The institute is located inside a flat-roofed, one-story structure at the intersection of Preston and North Wolfe streets, several blocks from the Johns Hopkins Hospital campus. Over eight weeks, 10 men and women between the ages of 18 and 23 spend six hours a day learning the complexities of the different disciplines within supply chain. At the end of the course, Johns Hopkins and other employers will interview the new graduates and hire some—or maybe all—of them.

The program was established for high school graduates interested in learning the ins and outs of large-scale shipping, receiving and distribution operations. Graduation from the institute is intended to serve as the first step on a career path, rather than mere training for an entry-level job.

### Learning About the Supply System

**K**EEPING THE JOHNS HOPKINS HOSPITAL supplied is a massive, round-the-clock challenge that requires experts in coordination, planning, warehousing and other specialties. Everything the hospital uses—supplies, equipment, food—comes to the 22-bay East Fayette Street loading dock on trucks from vendors and distributors around the country. Each step of the complicated process, from warehouse inventory management to ordering the supplies to quality assurance to distribution, falls to the supply chain team.

Jasmine Montgomery is eager to learn all aspects of this system. During the first week

of the institute, she sits in the front row of the class, a few feet from the instructor. The 20-year-old native of Sandtown-Winchester, the West Baltimore neighborhood marked by civic unrest last year, understands that she's landed an opportunity that can take her places.

Montgomery became interested in supply chain work during a holiday seasonal job last year at the Amazon.com distribution center in southeastern Baltimore. She

worked on supply lines, scanning and screening holiday gifts as they rushed down the moving belt. Disappointed when her employment didn't extend beyond the holiday season, Montgomery learned of the Supply Chain Institute during an online job search several months ago.

**"I FELT LUCKY TO FIND A CLASS IN SOMETHING I WAS INTERESTED IN. AND THERE COULD BE A JOB AT THE END OF IT."**

—JASMINE MONTGOMERY, SUPPLY CHAIN INSTITUTE STUDENT

"I felt lucky to find a class in something I was interested in," she says. "And there could be a job at the end of it."

Desmond Jackson, director of patient accounts in Johns Hopkins Medicine's Patient Financial Services Department, says the Supply Chain Institute idea was inspired by the HopkinsLocal initiative to hire more city residents from underserved neighborhoods like Montgomery's.

"We have such a constant need for good employees in our supply chain," he says. "We've always wanted to get folks trained and ready to go. But it wasn't practical to start our own school for it."

Ken Grant, The Johns Hopkins Hospital's vice president of general services, says the supply chain affects everyone in the hospital. "The logistics side of supply chain plays a critical role in our ability to provide quality patient care," he says. "The Supply Chain Institute will help ensure we have a well-trained pipeline of individuals who are prepared to help us accomplish this mission-critical task."

Jackson initiated the conversations with the community college and thought both institutions might benefit from a collaboration to train supply chain workers. Each supplied instructors for the institute, with Johns Hopkins staffers handling the hospital-specific topics and community college faculty members teaching the rest of the program, such as "bridge" classes, which help students brush up on basic computer skills and other job readiness categories.

During one such class, Prince Frimpong, an expert on styles of learning, guides the students through a series of exercises. The class sits almost completely still, listening to quiz instructions through headphones, their eyes fixed on their computer screens while the instructor moves quietly from student to student, offering encouragement in his gentle West African accent.

"When I lecture, they get bored and don't concentrate," he says. "But when we do interactive work, they become very engaged."

As students complete their online quizzes, the gray-on-gray cinderblock classroom is silent, except for computer mouse clicks and a muffled voice sneaking out of the headphones. Outside, an Amtrak train on elevated tracks rumbles by three or four times an hour, zooming passengers past nondescript buildings that once housed busy factories, stables and streetcar barns.

### An Invitation to 'Dream Big'

**S**TUDENT DEONTE HENDERSON, 19, GRADUATED last year from Forest Park High School. He has borrowed a family member's car to get to this class from his Edmondson Village home.

"It's a loaner, and I'm not the owner," he jokes. "Get it? Loaner, not owner?"

Henderson is restless in the classroom. During quiet in-class study times, he stands up, bent over his desk, reading his textbook. "I want a job where I can work with my hands and move around," he says, fiddling with the fastener on his bright orange quarter-zip sweatshirt. "I can't sit down all day."

He says he's always wanted to work in a warehouse. "I tried to get a job at Amazon, but they didn't, y'know, hit me back. Maybe they thought I was too young."

He interned at the University of Maryland Medical Center during high school, working in the linen department. He enjoyed hospital work, he says, and likes to help people who need help. Now he is looking for his first job.

Montgomery, on the other hand, has found plenty of work since her 2013 graduation from Augusta Fells Savage Institute of Visual Arts in Baltimore's Harlem Park

**B**  
**LOCAL**

**T**he Johns Hopkins University and the Johns Hopkins Health System recently joined 24 other Baltimore

organizations to form BLocal, a sweeping economic inclusion initiative that will invest at least \$69 million into Baltimore's economy over the next three years.

Through BLocal, companies of all sizes have laid out specific plans to increase their support for Baltimore by spending more on goods and services supplied by disadvantaged, women-owned or minority-owned businesses in the city; providing summer jobs for city youth; and mentoring growing businesses. Participants have also pledged to spend more on design and construction contracts with local and minority- and women-owned businesses.

To learn more about this program and other ways that Johns Hopkins contributes to Baltimore, visit [hopkinsmedicine.org/dome](http://hopkinsmedicine.org/dome).



**Sandtown native Jasmine Montgomery** became interested in supply chain work during a seasonal employment stint at Amazon.com. She hopes to land a job with the Johns Hopkins supply chain team.

neighborhood. In addition to her recent job at Amazon, she has worked at the National Aquarium and was an usher at Oriole Park at Camden Yards.

Asked where she thinks the supply chain course might lead, she pauses, considering the path ahead. "We're not talking about just some job at the Inner Harbor," Montgomery says, her eyes lighting up. "This could be a career that could take you a long way from that."

"I'm going to dream big," she smiles. "How about distribution manager?"

—Patrick Smith

### More Training on the Horizon

Johns Hopkins is also developing a Certified Logistics Associate training program for current supply chain employees. The certification program will provide instruction in global supply chain logistics, safety principles, logistics and transportation, material handling equipment, and workplace communication.

# Developing Strategies to Prevent Deadly Blood Clots

Johns Hopkins nurses find ways to ensure that more patients receive vital medications.

**W**HY DO PREVENTIVE treatments go unused? At The Johns Hopkins Hospital, nurse clinician Deb Hobson is part of a research team that is pushing to find out.

“I learned that 12 to 14 percent of our patients weren’t receiving the doses of heparin or other blood thinners that their doctors had ordered for them,” says Hobson. “As a nurse. I thought to myself, ‘Wow, that’s a lot!’”

With funding from the Patient-Centered Outcomes Research Institute (PCORI), Hobson and her collaborator, nurse educator Dauryne Shaffer, are developing training sessions for nurses aimed at ensuring that more patients receive medications to prevent venous thromboembolisms (VTEs). Their involvement is crucial to the overall success of the three-year project to avoid these deadly blood clots, notes principal investigator Elliott Haut, a Johns Hopkins trauma surgeon.

“Without a multidisciplinary team, there’s no way you’re going to get buy-in from front-line providers,” says Haut. “We all want to hear from our peers. Surgeons like to listen to surgeons. Nurses like to listen to nurses. When it comes to teaching, educating and giving advice, nurses want someone like them.”

Haut, who is also an associate professor of health policy and management at the Johns Hopkins Bloomberg School of Public Health, says that over the past decade, he’s seen nurses become increasingly valued members of multidisciplinary research teams. “Science without collaboration doesn’t work,” he says. “If you try to do any [research] work in quality and patient safety without nurses having a voice, you’re dead in the water.”

Haut’s assessment appears to be shared by today’s grant funding organizations, from the National Institutes of Health, to PCORI, to the National Institute of Nursing Research. Increasingly, these agencies apportion their sought-after dollars to projects that cross disciplines and demand collaboration.

**“SCIENCE WITHOUT COLLABORATION DOESN’T WORK. IF YOU TRY TO DO ANY [RESEARCH] WORK IN QUALITY AND PATIENT SAFETY WITHOUT NURSES HAVING A VOICE, YOU’RE DEAD IN THE WATER.”**

—ELLIOTT HAUT

Twice each week, Hobson and Shaffer attend meetings at The Johns Hopkins Hospital with other members of their VTE prevention team. In their research to find out why a significant number of patients at the hospital were refusing doctor-prescribed blood thinners, the team found some surprises. Among them: Some nurses believed that as long as their patients were ambulatory, the risk of blood clots was minimal, so they counseled patients against taking the prescribed medication. In other cases, nurses would make the decision to hold off on blood-thinning doses if

patients were about to undergo a procedure, such as having a feeding tube inserted, out of concern that the medication could cause excessive bleeding.

While well-intentioned, both courses of action had the potential to put patients at unnecessary risk of a deadly blood clot. To set the record straight and bring floor nurses up to date on the latest evidence-based practice in VTE prevention, Shaffer worked with other members on the research team to create several e-learning modules. In addition, the team set up a technology-based system—tied to the electronic medical record—that alerts Shaffer or another VTE collaborative member when a patient refuses a dose of prescribed preventive treatment. When she gets paged, Shaffer makes a visit to the patient’s bedside to talk through his or her concerns. She’s found that many people don’t realize how serious a blood clot can be or that its effects can linger for many months.

“We still have patients who will refuse [the blood-thinning] medication,” says Shaffer. “But at least it’s an educated refusal.”

The VTE prevention team has come up with a one-page fact sheet—available in multiple languages—that is now given to many hospitalized patients. It also produced a short video in which patients who’ve suffered blood clots share their cautionary tales.

Study leader Haut says his team is on track to produce a “blueprint” for multitiered strategies that can be adopted by hospitals across the country. The ultimate objective: to reduce the 100,000 deaths caused annually by VTE—more than AIDS, breast cancer and motor vehicle accidents combined.

“Without nurse representation in our group, it would have been impossible for us to work on any [of this],” says Haut. “When you’re doing quality and safety research on interventions for real patients on surgical floors, it’s absolutely critical to have nurses on the team.”

—Sue De Pasquale



Dauryne Shaffer, left, and Deb Hobson show Howard Winter how to prevent blood clots.

## IN BRIEF

### LGBT Kudos Across Institution

For the first time, all six Johns Hopkins Medicine member hospitals have been designated Leaders in LGBT Healthcare Equality by the foundation of the Human Rights Campaign, the largest lesbian, gay, bisexual and transgender civil rights organization in the United States. The Johns Hopkins Hospital, Johns Hopkins Bayview Medical Center, Howard County General Hospital, Suburban Hospital, Sibley Memorial Hospital and Johns Hopkins All Children’s Hospital were recognized for implementing fully inclusive patient and employee nondiscrimination policies, equal patient visitation policies for LGBT patients and families, and training in LGBT patient-centered care.

The recently released designations are part of the latest edition of the HRC Foundation’s



Healthcare Equality Index, a national survey conducted annually that promotes equitable and inclusive care for LGBT patients and families. Learn more about Johns Hopkins Medicine’s efforts and progress in improving the health care experience for LGBT patients and families at [bit.ly/JHMdiversityannualreport](http://bit.ly/JHMdiversityannualreport).

To learn more about VTE efforts at Johns Hopkins Medicine, visit [hopkinsmedicine.org/armstrong\\_institute](http://hopkinsmedicine.org/armstrong_institute).

# Moving Them in the Right Direction

New Johns Hopkins study finds that when staff members work together to promote mobility, patients get back on their feet sooner.

**I**N 2006, STUDIES BY DALE NEEDHAM, MEDICAL DIRECTOR of the Johns Hopkins Critical Care Physical Medicine and Rehabilitation Program, showed that even the sickest patients in the intensive care unit can benefit from early mobility, such as standing or walking. Since then, efforts have intensified across The Johns Hopkins Hospital to promote such mobility on all inpatient units, thanks to the Activity and Mobility Promotion (AMP) initiative, co-directed by Michael Friedman, director of rehabilitation therapy services, and Johns Hopkins physiatrist Erik Hoyer.



Friedman says that patients spending too much time in bed has been linked to mortality and complications. “Immobility is a preventable harm—no different from pressure ulcers, falls or deep vein thrombosis.” And, he adds, every staff member involved in caring for patients needs to help ensure that mobility is a priority and that patients move as much as possible each day.

In a recent study in the *Journal of Hospital Medicine*, Friedman and Hoyer found that increasing daily mobility to three times a day resulted in significantly improved walking ability for more than 3,300 patients. Over the course of a year, the number of patients achieving the highest level of mobility—walking at least 250 feet—increased from 43 percent to 70 percent.

Much of the success comes from the joint efforts of all the patients’ care providers. Not long ago, when doctors wanted their patients to get up and out of bed, a nurse would call a physical therapist. But there are not enough physical therapists to accommodate that daily need. Often this would result in several days passing without getting patients out of bed or walking. Hoyer and Friedman say

**“IMMOBILITY IS A PREVENTABLE HARM—NO DIFFERENT FROM PRESSURE ULCERS, FALLS OR DEEP VEIN THROMBOSIS. SO MOBILITY NEEDS TO BE TREATED AS A VITAL SIGN.”**

—MICHAEL FRIEDMAN

that with proper guidance, nurses, physicians, technicians and family members can play a pivotal role in restoring patients’ ability to perform such activities as brushing their hair and walking to the bathroom.

“People need to recognize that patient mobility is important,” says Hoyer. “And all members of the care team need to use a common measure for it. They need to speak the same language to help determine which patients are starting to decline.” To that end, as part of the AMP initiative, Hoyer, Friedman and occupational therapist Annette Lavezza have created an easy-to-use, daily mobility goal guideline to chart progress and identify risk for each person (see sidebar).

The program requires buy-in from nurses, physicians, therapists and patients, and it’s not always an easy sell. Barriers include the perception that patients are too sick to be moved or that they might fall. “But inactivity itself is a major cause for falls,” says Hoyer, explaining that patients are vulnerable as they try to re-coup their bearings.

Under the guidelines set up by Hoyer and Friedman, nurses meet regularly with therapists to discuss how to advance mobility and to review plans for discharge. An 86-year-old woman living alone, for example, needs to be assessed carefully to ensure that she can get around her home safely, says



**“ALL MEMBERS OF THE CARE TEAM NEED TO SPEAK THE SAME LANGUAGE TO HELP DETERMINE WHICH PATIENTS ARE STARTING TO DECLINE.”**

—ERIK HOYER

**Activity and Mobility Program**  
Goal: To Maintain or Increase Highest Level of Mobility (HLM) Daily

HLM SCORE	✓ YESTERDAY'S SCORE	✓ TODAY'S GOAL	# OF TIMES HLM MET TODAY (e.g., 3)
8 WALKED 250 FEET/ 1+ LAPS	<input type="checkbox"/>	<input type="checkbox"/>	TIMES
7 WALKED 25 FEET	<input type="checkbox"/>	<input type="checkbox"/>	3 TIMES
6 WALKED 10 Steps	<input type="checkbox"/>	<input type="checkbox"/>	3 TIMES
5 STATIC STANDING FOR 1+ MINUTE	<input type="checkbox"/>	<input type="checkbox"/>	3 TIMES
4 TRANSFERRED TO CHAIR/COMMODE	<input type="checkbox"/>	<input type="checkbox"/>	3 TIMES
3 SAT ON EDGE OF BED	<input type="checkbox"/>	<input type="checkbox"/>	3 TIMES
2 TURNED SELF IN BED/ R.O.M.	<input type="checkbox"/>	<input type="checkbox"/>	3 TIMES
1 LYING IN BED	<input type="checkbox"/>	<input type="checkbox"/>	3 TIMES

AMPAC MOBILITY SCORE →

BASELINE HLM SCORE

ADMISSION HLM SCORE

DISCHARGE HLM GOAL

MOBILITY AIDES

## Activity and Mobility Program

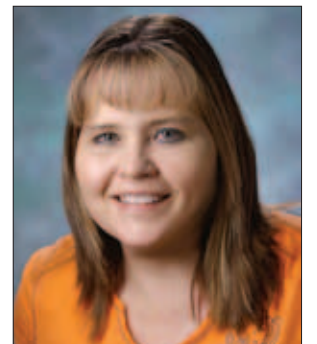
To track progress, physiatrist Erik Hoyer, physical therapist Michael Friedman and occupational therapist Annette Lavezza developed an eight-point mobility scale, called the Johns Hopkins Highest Level of Mobility score, and implemented the Activity Measure for Post-Acute Care. Every day, the team meets to review the ABCs of each patient: A, for activity; B, for barriers; and C, for continue to progress to mobility, “so that everyone speaks the same language,” says Hoyer, who holds a joint appointment at the Armstrong Institute for Patient Safety and Quality.

Hoyer. If not, she should receive additional rehab services or be considered for placement in an assisted living facility.

Hoyer and Friedman believe that creating “a culture of mobility” is possible. Just as the ubiquitous hand-washing campaign resulted in greater compliance, says Hoyer, “raising awareness about getting patients moving every day can prove transformative for them.” He and Friedman are available to give presentations on patient mobility.

The mobility program is patient-centered, and it raises patient satisfaction, they’ve found. Says Friedman, “It adds up to being able to get out of bed, go to work, go to the grocery store, make meals, or, over time, even run a 5K—meaningful milestones to our patients.”

—Judy F. Minkove



Occupational therapist Annette Lavezza worked closely with Erik Hoyer and Michael Friedman to create the mobility scale.

Learn more about the activity and mobility program: [bit.ly/amprogram](http://bit.ly/amprogram).

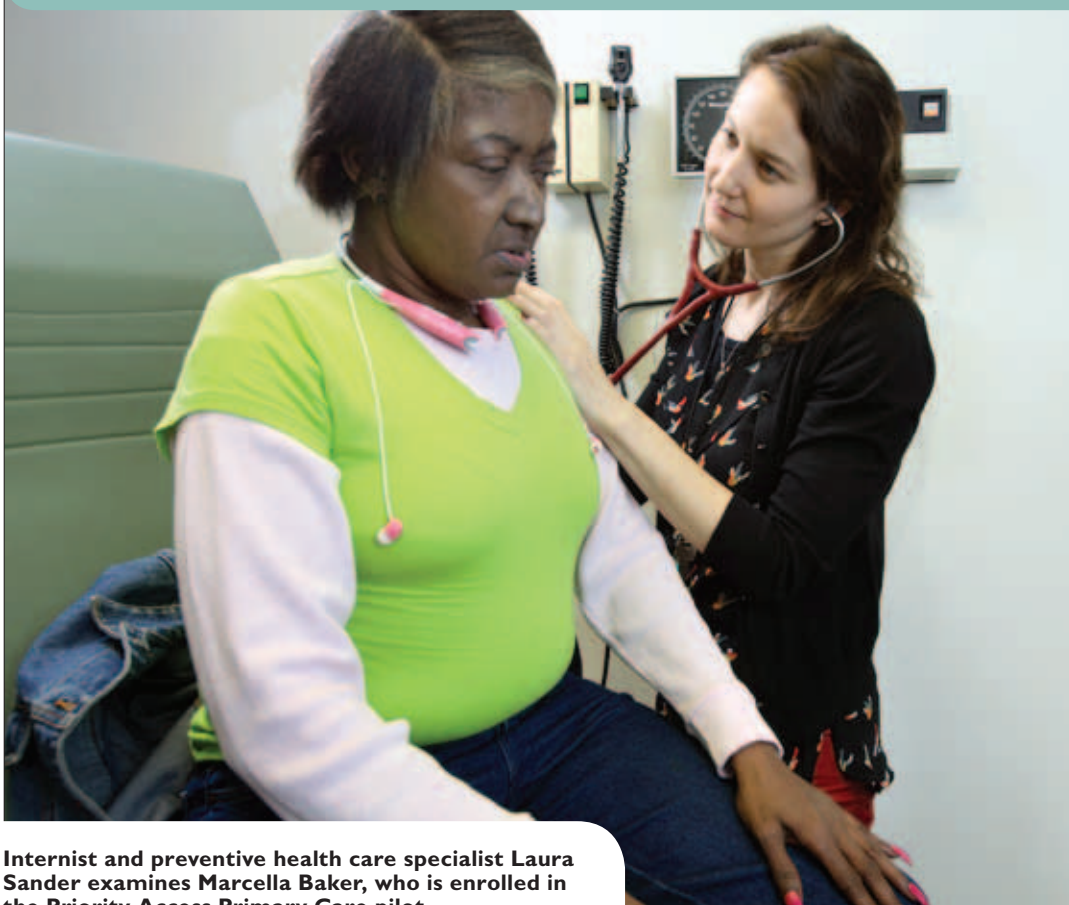
## IN BRIEF

### Dancing with the Hopkins Stars Returns to Benefit United Way

Enjoy a night of salsas, rumbas and fancy footwork as Dancing with the Hopkins Stars returns on Thursday, June 2, at 5:30 in Turner Auditorium on the East Baltimore campus. An all-new cast of Johns Hopkins couples will perform elaborate dance routines before a live audience, competing for the mirror-ball trophy—all in support of United Way. Building on Johns Hopkins Medicine’s year-round commitment to give back to the community, each couple will raise funds for a charitable organization or United Way initiative of their choice to support the 2016 Johns Hopkins Medicine United Way campaign. Watch a video from last year’s event at [bit.ly/dancingwiththehopkinsstars2015](http://bit.ly/dancingwiththehopkinsstars2015).



Lisa Maragakis and Shawn Celio return to judge contestants.



Internist and preventive health care specialist Laura Sander examines Marcella Baker, who is enrolled in the Priority Access Primary Care pilot.

## The Benefits of High-Intensity Primary Care

The Priority Access Primary Care program has dramatically cut Emergency Department visits and hospital admissions among high-complexity patients.

**A**S SHE WAS WALKING INTO THE EAST BALTIMORE Medical Center recently, internist Laura Sander received a phone call about one of her patients, a young woman whose diabetes was out of control. The patient had been admitted to another health system's Emergency Department.

Within a half-hour, Sander was on her way to the ED to persuade her patient to return to the Johns Hopkins primary care clinic for her medical needs. Later, the physician visited her at home. And the following week, the patient came back to Sander's office for an extended appointment. Between those visits, someone from the internist's team called the patient to check on her.

Why such VIP care? The patient is one of 70 enrolled in the Priority Access Primary Care (PAPC) pilot, which Sander directs from East Baltimore Medical Center. The pilot is a collaborative effort between Johns Hopkins Community Physicians and the Priority Partners Managed Care Organization, which is jointly owned by Johns Hopkins HealthCare and the Maryland Community Health System.

The program aims to keep Medicaid patients out of the ED and the hospital by providing intensive primary care services that are integrated with behavioral health care and social services. One successful strategy is offering direct access to providers: Patients call, text or video chat with PAPC providers 24/7 for acute needs. Also, PAPC gets a notice within 15 minutes when one of the patients is admitted to any hospital or ED in the state, thanks to CRISP, Maryland's health information exchange.

The program's patients are the costliest among Priority Partners' population, with complex medical and psychosocial needs and a history of ED and hospital admissions. Last year, a study by the U.S. Government Accountability Office found that 5 percent of Medicaid patients account for 50 percent of the program's expenditures nationwide. The idea behind the Priority Access Primary Care pilot is to identify patients at the top of the cost curve to receive intensive primary care.

When the program was rolling out, Priority Partners provided Sander with a list of patients whose projected costs were higher than expected for their age, gender, conditions and so forth. From that initial list, Sander determined program eligibility criteria, which include three ED visits in the last six months and/or two admissions. Now, Priority Partners looks at its claims data to identify candidates for the program, and Sander makes the final determination of eligibility.

Working side by side with Sander is a team composed of nurse practitioner Kate Shockley; certified medical assistant Sherrell Byrd-Arthur, who serves as a health navigator to help patients negotiate the health system; licensed clinical professional counselor Laura Fukushima; and community health worker Brian Adams, who connects patients to community resources and coaches them in how to manage their diseases.

Since the PAPC pilot began a year and a half ago, ED visits among its patients have dropped by 30 percent and admissions by 41 percent. A key reason for the program's success, Sander says, is that it provides behavioral health care. When patients come in for a

primary care visit, they spend 45 minutes with Sander or Shockley, then another 45 minutes with Fukushima.

"We have more patients with depression than with hypertension," says Sander. "Thus we're really focusing on mental health care alongside traditional primary care."

Each primary care visit incorporates motivational interviewing and education on disease management. PAPC providers also make time for home visits. New program participants receive a home visit as part of their introduction to the program while patients with chronic conditions will receive periodic visits to help with medication reconciliation. All patients discharged from the hospital receive a home visit as well.

"We work to meet patients where they are, to get to know them and then slowly build their confidence and trust to work on their larger health challenges," Sander explains.

The program also addresses patients' social needs. For example, the community health worker helps patients apply for housing vouchers and fill out Social Security documentation.

This kind of attention has not only helped keep patients out of the hospital but has also shown a 2-to-1 return on investment, according to Sander. "We're happy to say that by doing exactly what we set out to do—to reconnect high-cost patients to primary care—we've improved their health and saved money." The program will run through 2016.

—Christina DuVernay

See a video at [hopkinsmedicine.org/dome](http://hopkinsmedicine.org/dome).

### Armstrong Leadership Academy

Johns Hopkins Medicine employees are encouraged to apply to the Armstrong Institute Patient Safety and Quality Leadership Academy. This nine-month program prepares future leaders to transform the clinical health care setting to eliminate harm and create a culture of caring. Applications will be accepted through May 13. Details and application instructions are available on the Armstrong Institute's website. Visit [hopkinsmedicine.org/armstrong\\_institute/programs](http://hopkinsmedicine.org/armstrong_institute/programs).

### Employee Remembrance Service

Johns Hopkins Hospital and Health System Corporation employees who died in 2015 will be remembered at a service on Monday, June 6, at noon in the Sheikh Zayed Tower's Peterson Courtyard. The program, hosted by the departments of Human Resources and of Spiritual Care and Chaplaincy, is open to colleagues and family members of those employees.

### Fresh Produce Offerings

The Johns Hopkins East Baltimore farmers market is open for business—rain or shine. You'll find fresh produce, bread, cheese and prepared meals to purchase from local vendors every Thursday through October, from 10 a.m. to 2 p.m., on the Jefferson Street pathway, near the cancer research buildings. A similar market at Johns Hopkins Bayview Medical Center operates 10 a.m. to 2 p.m. Wednesdays into mid-October in front of Burton Pavilion. Howard County General Hospital also hosts a farmers market every Friday, from 11:30 a.m. to 4:30 p.m. through September, in the hospital's visitor parking lot C. Also, consider signing up for a community-supported agriculture program, where seasonal products are bundled and delivered to the East Baltimore farmers market each Thursday or at the school of public health's parking garage on Tuesdays. For questions, email [sustainable@jhmi.edu](mailto:sustainable@jhmi.edu) or visit [sustainability.jhu.edu](http://sustainability.jhu.edu).



JOHNS HOPKINS MEDICINE

Leadership Appointments



**Amy Deutschendorf, M.S.N.**, has been promoted to vice president for care coordination and clinical resource management for the Johns Hopkins Health System. In her new position, Deutschendorf will help standardize the health system's six hospitals' approach to care coordination and utilization, aid in compliance with federal and state regulations, and provide leadership and innovation to ensure that the transition of patients from hospital to home is safe, effective and patient-centered. Previously, Deutschendorf was vice president of care coordination and clinical resource management for The Johns Hopkins Hospital, as well as senior director for utilization and clinical resource management for the Johns Hopkins Health System.

**Kimberly Duncan, Ph.D.**, has been named director of the Center for Innovation in Graduate Biomedical Education. Previously, she was administrative director of education in the school of medicine's Department of Surgery. In her new role, she will develop and implement the center's initiatives, including overseeing the newly formed MedImmune Scholars Program.



**Benjamin Philosophe, M.D., Ph.D.**, professor of surgery, has been appointed surgical director of the Johns Hopkins Comprehensive Transplant Center. With more than 20 years of multi-organ transplant experience, Philosophe has also served as the clinical chief of the division of transplantation, overseeing the medical care of abdominal transplant patients, pre- and post-transplant. In addition, he serves as the interim chief of the division of transplantation.

Cancer Moonshot Blue Ribbon Panel



**Elizabeth Jaffee, M.D.**, deputy director of the Johns Hopkins Kimmel Cancer Center, has been appointed by the National Cancer Institute as co-chair of a 28-member blue-ribbon panel of scientific experts, cancer leaders and patient advocates who will help shape the agenda of Vice President Joe Biden's National Cancer Moonshot Initiative. The panel will serve as a working group of the presidentially appointed National Cancer Advisory Board.

Institute for Excellence in Education

**Colleen Christmas, M.D.**, director of the primary care leadership track, has received the 2016 Outstanding Achievement in Education Award for Education Scholarship from the Institute for Excellence in Education (IEE), founded in 2009 to strengthen the school of medicine's educational mission and leadership, as well as to honor the school's outstanding educators.

**Panagis Galiatsatos, M.D.**, fellow in pulmonary and critical care medicine; **Ariel Green, M.D., M.P.H.**, assistant professor of medicine; and **Colleen Christmas, M.D.**, were recognized for their contributions to Medicine for the Greater Good (MGG), which was awarded the Educational Pro-

gram Award by IEE. An initiative founded by Galiatsatos in 2013, MGG raises health care professionals' awareness of the socioeconomic factors affecting health and health equity in the community, providing workshops for medical students, residents and nurses, and requiring them to meet with local residents to promote health and wellness.

**David Kern, M.D., M.P.H.**, emeritus professor of medicine, has received the Martin D. Abeloff Award for Lifetime Achievement in Medical and Biomedical Education, the IEE's most prestigious award. Since coming to Johns Hopkins as a Robert Wood Johnson Clinical Scholar Fellow in 1976, Kern has devoted his career to advancements in medical education and faculty development. He was co-director of the Division of General Internal Medicine at Johns Hopkins Bayview Medical Center from 1986 to 2005 and its sole director from 2005 to 2011.

Weinberg ICU Honors

The **Weinberg Intensive Care Unit (WICU)** nursing staff has received an American Association of Critical-Care Nurses' 2016 Beacon Award for Excellence. With this award comes a three-year designation as a "silver-level" unit—one of only three in Maryland to achieve this honor and the second time that the WICU has received it. The designation honors the recipients' continuous learning and use of effective systems to achieve optimal patient care.

Distinctly Blue

**Howard County General Hospital** and **Sibley Memorial Hospital** have received designation by CareFirst BlueCross BlueShield as a Blue Distinction Specialty Care Center for maternity care. The Blue Distinction designation is part of a national program that recognizes health care facilities that demonstrate expertise in delivering quality care safely, effectively and cost efficiently.

EAST BALTIMORE



**Daniel Ashby, M.S.**, chief pharmacy officer for the Johns Hopkins Health System, will receive an honorary doctorate in science from the University of Maryland Eastern Shore. The honorary degree recognizes Ashby's contributions to hospitals, health systems and pharmacy, as well as his professional ideals and dedication to citizenship.

**Robert Black, M.D., M.P.H.**, has received the National Foundation for Infectious Diseases' 2016 Jimmy and Rosalynn Carter Humanitarian Award for his achievements as a world leader in public health science and his lifetime of contributions to improving the health of children in the developing world. Black, who headed the Bloomberg School of Public Health's Department of International Health from 1985 to 2013 and directs the Institute for International Programs, also holds a joint appointment in the school of medicine's Department of Medicine.

**Angela Guarda, M.D.**, director of the Eating Disorders Program, is the inaugural recipient of the Stephen and Jean Robinson Professorship in Eating Disorders.

**Chidubem "Chid" Iloabachie, M.D.**, a resident in the Department of Emergency Medicine, has received the 2016 Frank L. Coulson



Clockwise from bottom left, Sam Enumah (behind Biden's right shoulder), William Plum, Zachary Enumah, Justin Lowenthal, A. Gatebe Kironji (at the top), Emily Murphy, Meera Chappidi, Mike Foote and Chris Cho (on Biden's left, with eyeglasses). To read more, visit [hopkinsmedicine.org/dome](http://hopkinsmedicine.org/dome).

**MOONSHOT MOMENT:** Vice President Joe Biden poses for a selfie with Johns Hopkins University School of Medicine students during the March 29 launch of the Bloomberg-Kimmel Institute for Cancer Immunotherapy. The institute was founded with gifts of \$50 million each from Michael Bloomberg and Sidney Kimmel, and \$25 million from more

than a dozen additional supporters. It supports advances in cancer immunotherapy, a central element of the Obama administration's new cancer moonshot initiative. Biden, Bloomberg and Gov. Larry Hogan were among the speakers at the event in the Anne and Mike Armstrong Medical Education Building.

Jr. Award for Clinical Excellence. The award, given by the Miller-Coulson Academy of Clinical Excellence, recognizes Iloabachie's mastery of such patient care abilities as communication, professionalism and diagnostic acumen.



**Barbara Migeon, M.D.**, founding director of the Predoctoral Training Program in Human Genetics, is the 2016 recipient of the American College of Medical Genetics and Genomics' annual March of Dimes/Colonel Harland D. Sanders Lifetime Achievement Award in Genetics. She was recognized for her pioneering work in sex determination of X-inactivation—the packaging of a female's two X chromosomes so that her genes cannot be used.

**Peter Pronovost, M.D., Ph.D.**, director of the Armstrong Institute for Patient Safety and Quality and senior vice president for patient safety and quality, has been recognized by *Modern Healthcare* magazine as one of the 50 most influential physician executives in the nation and by *Becker's Hospital Review* as one of the top 50 patient safety leaders in the country.

**Vani Rao, M.D., M.B.B.S.**, director of the Brain Injury Program, has been named a fellow of the American Neuropsychiatric Association.

JOHNS HOPKINS BAYVIEW MEDICAL CENTER

**Flor Giusti, M.S.W., L.C.S.W.-C.**, in the Children's Medical Practice, has been named one of Baltimore's Inspired to Inspire: Champions and Visionaries by Baltimore Mayor Stephanie Rawlings-Blake. Giusti was honored for her efforts to break the cycle of violence against women in the community.



**Takiya Reavis, B.S.P.H., M.B.A., H.M.A.**, has been promoted to manager of patient experience. She will work with the medical center's leaders to help meet their patient- and family-centered goals. She will also

oversee the patient representatives in the Department of Emergency Medicine and the ambulatory surgical unit. Reavis previously was assistant administrator for the Department of Orthopaedic Surgery.

HOWARD COUNTY GENERAL HOSPITAL



**David Nitkin, M.P.P.**, has been appointed senior director of administration and chief of staff. He will be responsible for implementing initiatives to advance quality, safety and service in patient care that are central to the agenda of **Steven Snelgrove, M.B.A.**, who became the hospital's president in 2014. Most recently, Nitkin served as director of communications and policy adviser in the Maryland Attorney General's office. Prior to that, he was director of communications for the Howard County government.

SUBURBAN HOSPITAL



**Karin Nevius, R.N.**, has been promoted to director of professional practice and nursing quality. A nurse at Suburban since 1982, Nevius has worked in a variety of settings, including orthopaedics, neurology, intensive care and the postanesthesia care unit (PACU), where she has been a clinical nurse educator for more than 12 years. Certified in crucial care, ambulatory perianesthesia and postanesthesia, she previously was assistant nurse manager of the PACU.

JOHNS HOPKINS MEDICINE INTERNATIONAL

The **Language Access Services** team, which provides medical interpretation for local and out-of-state patients whose native language is not English or who require communication via sign language, has received the International Medical Interpreters Association's Provider of the Year Award.

Dome

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