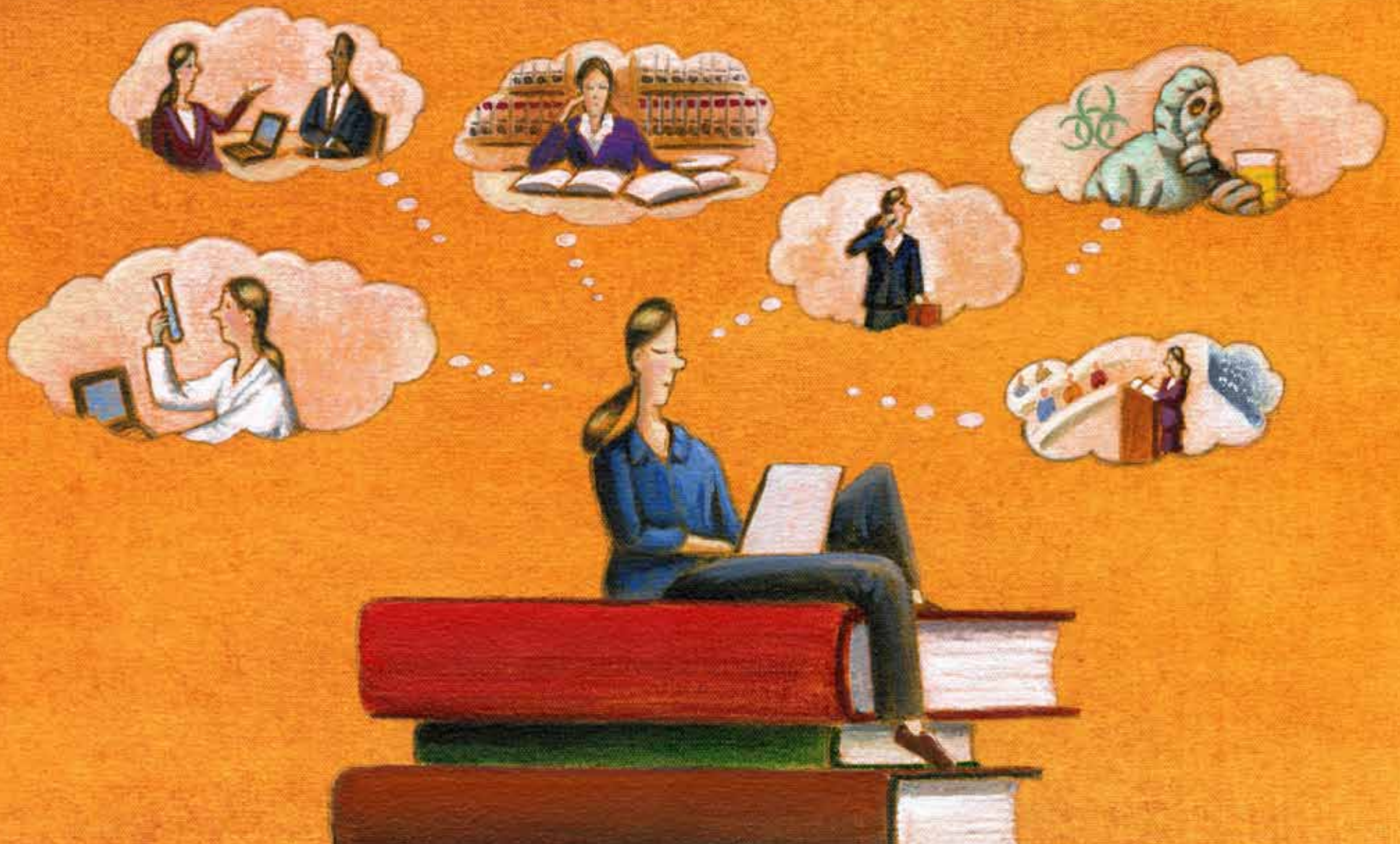


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Dome

A publication for the Johns Hopkins Medicine family

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PAUL ZWOLAK

Charting a Course Outside the Academy

Biomedical Careers Initiative helps graduate students explore diverse opportunities.



Learn more about the strategic priority for education online at hopkinsmedicine.org/strategic_plan.

THE CONVERSATION IS LIVELY AT Red Emma's, the bookstore and vegetarian restaurant where Lily Raines has organized a Baltimore Science Cafe. Khalil Ghanem, a Johns Hopkins expert in infectious diseases, has finished a 15-minute talk about the dangers of overusing antibiotics, and now he's taking questions from a lay audience that is eager to learn.

Raines is enjoying the exchange. "My biggest pet peeve is when someone says: 'I'm not good at science,'" says Raines, 26, a fifth-year Ph.D. candidate in the Biochemistry, Cellular and Molecular Biology Graduate Program at the Johns Hopkins University School of Medicine.

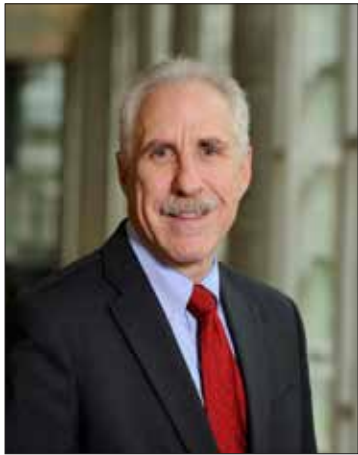
Raines, the first in her family to pursue a Ph.D., knows how to describe her research so friends and relatives understand. Their "Oh, now I get it" moments inspired her to organize the once-a-month Science Cafes for Project Bridge, a student group that connects the public with Johns Hopkins research at venues around town.

Until recently, Raines considered science outreach a hobby, not a potential career. Like other doctoral candidates, she planned to find a faculty job—in her case, teaching science and conducting research at a liberal arts college. But the more she learned about academic life, the more she realized she didn't want to compete for research dollars to fulfill a future *(continued on page 4)*

Avoiding a 'Brain Drain'

We must take bold steps to hold on to early-career scientists.

PAUL B. ROTHMAN, M.D.
DEAN OF THE MEDICAL FACULTY
CEO, JOHNS HOPKINS MEDICINE



Frederick Banting is a renowned figure in medical history. He won the Nobel Prize in Physiology or Medicine in 1923 for discovering insulin and pioneering lifesaving injections for diabetics. At the time of his breakthrough, he was just 30 years old. His assistant and co-discoverer, to whom he gifted half his prize money, was Charles Best, eight years his junior.

It is hard to imagine

early-career scientists making such an outsized contribution today. These days, the average Nobel winner in medicine is 45 at the time of the prize-winning breakthrough. Moreover, today's scientists with medical training do not receive their first major research project grant from the National Institutes of Health (NIH) until age 45 on average, up from 38 in 1980.

Young scientists today are caught in a sort of catch-22: They lack the preliminary data required to secure the grant funding necessary to generate the data. Thus, the number of NIH principal investigators in the under-36 bracket has fallen to 3 percent today, from 21 percent in 1980.

So what are we sacrificing by failing to fund the work of up-and-comers at this pivotal moment in their careers? Innovation.

A report summarized in the journal *Nature* in February analyzed 20 million biomedical papers and found that young scientists are much more likely than senior ones to publish in cutting-edge areas and emergent fields. Moreover, seasoned researchers are more likely to publish on hot topics when they are overseeing the work of early-career scholars.

This pipeline problem is front and center for academic medical centers. When young scientists struggle to launch their own labs, they seek positions overseas or veer off the academic path into industry, threatening a "brain drain" for universities. To maintain our U.S. pre-eminence in biomedical research, we need to make careers in science more attractive and more viable.

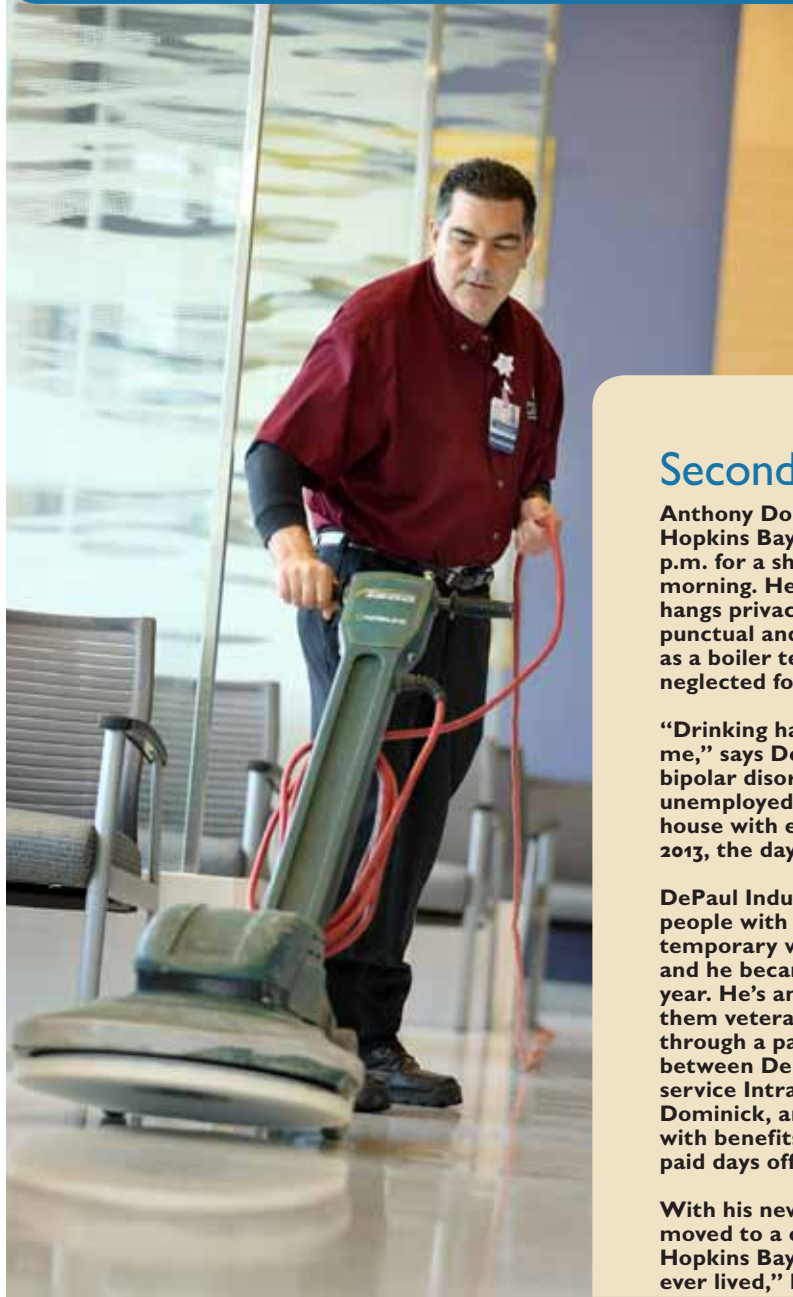
Recent working groups have been formed on this issue by NIH and the National Academy of Sciences. Earlier this year, Johns Hopkins University President Ron Daniels called for strategic federal investment via creative new grants tailored to young investigators, reforms to the peer review process and more investment in visionary scientists rather than in specific proposals.

Johns Hopkins Medicine is spearheading complementary efforts on our own campuses.

First, we want to be sure we are not producing more Ph.D.s or M.D.-Ph.D.s than the workforce will bear. The good news is that jobs do exist for our graduates. The U.S. unemployment rate among those with a doctorate in science, engineering and health fields is just 2.4 percent. But not all those jobs will be tenure-track positions in academia, so we are developing a blueprint for a non-faculty career track for research professionals (see cover story). We are also boosting services for young faculty with entrepreneurial ambitions.

Most importantly, we are focused on providing ample mentoring and advising for young faculty on a path to a biomedical career, especially at transition points. We have encouraged all our departments to form pre-submission grant review committees while also adding more support for grant writing and budgeting. And we urge departments to enforce "protected" research time for junior researchers with training grants so that they can establish the robust body of work needed to win over NIH.

Finally, we are creating internal research funding streams, such as our new Innovation Awards for novel projects not previously funded or published. We are also helping our budding investigators pursue dollars from other sources, including foundations, commercial partners, philanthropists and nongovernmental organizations, like the Patient-Centered Outcomes Research Institute.



Second Chances

Anthony Dominick arrives at Johns Hopkins Bayview Medical Center at 10:30 p.m. for a shift that ends at 8 the following morning. He cleans floors, takes out trash, hangs privacy curtains for patients. He is punctual and meticulous, traits he learned as a boiler technician in the U.S. Navy but neglected for decades.

"Drinking has always been a problem for me," says Dominick, 47, diagnosed with bipolar disorder and depression. He was unemployed and living in a two-bedroom house with eight other people on May 15, 2013, the day he got sober.

DePaul Industries, a staffing agency for people with disabilities, found Dominick temporary work at Hopkins Bayview, and he became permanent earlier this year. He's among nine workers, most of them veterans, placed at Johns Hopkins through a partnership formed in 2014 between DePaul and in-house staffing service Intrastaff. At least three, including Dominick, are now full-time employees, with benefits that include overtime and paid days off.

With his new financial security, Dominick moved to a one-bedroom apartment near Hopkins Bayview. "It's the nicest place I've ever lived," he says.

—Karen Nitkin

DID YOU KNOW?



Dandy's Compass

When the Department of Neurosurgery and the Department of Biomedical Engineering began converting the old operating suite in the Carnegie Building into a joint laboratory, they decided to leave one historic element intact.

A six-point compass, which bears only fragments of its original yellow paint, remains on a section of floor. It was used by legendary Johns Hopkins neurosurgeon Walter Dandy (1886–1946) to orient patients on whom he was practicing

ventriculography. His pioneering procedures made brain tumors visible for the first time on X-rays by injecting air into the brain's ventricles.

The floor compass helped Dandy "align the patient's head for the X-ray—and revolutionized medicine," says Henry Brem, director of the Department of Neurosurgery. Renovation plans call for a plaque to explain the preserved artifact and its role in neurosurgical history.

—Neil A. Grauer

A Wall of Remembrance

New display honors organ and tissue donors.

BORN WITH A RARE LIVER DISEASE, Johns Hopkins Hospital nurse Clint Burns grew up with more days of sickness than health. At 24, deemed terminally ill, he was finally placed on the transplant list at The Johns Hopkins Hospital.

“I thought my road had come to an end, but I had a glimmer of hope that a donor family would say yes to organ donation,” recalls Burns. The following year, he received his gift: a liver that restored him almost immediately to health and allowed him to pursue a career and to start his family of four children.

Now 46, Burns serves as the hospital’s in-house coordinator for organ and tissue donation. He also helped create its new organ and tissue donor wall. The 6-by-16-foot display in the Nelson/Harvey Building, located across from the hospital’s gift shop, has a lustrous design with interlocking translucent bubbles and small, brightly colored panels. It features 475 names of deceased Johns Hopkins patients who donated their organs or tissues to those in need as well as the names of many who have registered to donate.

Burns and Brigitte Sullivan, director of the hospital’s Comprehensive Transplant Center, worked with an in-house design team to create this tribute when the organ donor memorial wall in the Carnegie corridor couldn’t fit any more names.

Working closely with the state’s Living Legacy Foundation, the organ procure-



Brigitte Sullivan and Clint Burns, pictured, worked with the wall’s design team, which included Jim Lustek, director of brand management; Michael Iati, senior director of architecture and planning for the health system; Jennifer Fairman, assistant professor of art as applied to medicine; a donor family member; and Andrew Petitti, the designer.

ment organization that supports families through the donation process, the interactive display includes inspirational stories from donor families and recipients, information about common organ donation myths and misconceptions, and an overview of the history of organ donation at Johns Hopkins.

A special feature will soon allow would-be organ donors to register through a touch-screen panel.

“The wall can be expanded, so the names listed will be here for many years and honored in a way they deserve,” Burns says. An annual ceremony will recognize new donor names.

He says the new memorial underscores the importance of the entire donation and transplant process: “Someone who has died can save eight lives and cure another who is terminally ill. There’s nothing like it in medicine. This wall honors that miracle.”

The wall’s design team is working with Johns Hopkins Bayview Medical Center and Howard County General Hospital to create similar displays.

—Stephanie Price

To see a video of Clint Burns, go to bit.ly/lifesavingtransplanthopkins.

A SPECIAL FEATURE WILL SOON ALLOW WOULD-BE ORGAN DONORS TO REGISTER THROUGH A TOUCH-SCREEN PANEL.

INTEGRATION

‘Care Everywhere’ Gives Clinicians More Information About Patients

The Epic function simplifies record sharing across thousands of hospitals and clinics.

TO DIAGNOSE RENAL DISEASE, nephrologist Derek Fine relies on a blood test that measures creatinine, a waste product that is filtered by healthy kidneys. But a single test result paints an incomplete picture because it does not show changes over time. Fine gets more information when he compares his patients’ current creatinine levels with past results of the same test.

“If a patient’s creatinine was normal two weeks ago and now it’s elevated, that could be ominous,” he says. “But if it’s been high for three years, I can tell a patient: ‘There’s no reason to panic.’”

His challenge, until recently, was accessing those past test results in a useful format and without delaying treatment. All of Fine’s patients are referred, frequently from institutions outside of Johns Hopkins, so their histories are not stored in the Johns Hopkins Epic electronic medical record system. “In the old days, it would take me days if not weeks to track down information,” he says. “I’d get a pile of papers coming in by fax.”

Now, Fine, who practices at The Johns Hopkins Hospital, uses the Care Everywhere function in Epic to easily access past lab results from more than 1,000

IN 2014, CLINICIANS WITH JOHNS HOPKINS MEDICINE USED ‘CARE EVERYWHERE’ 158,277 TIMES TO SHARE INFORMATION WITH 172 HOSPITALS AND CLINICS IN 44 OTHER STATES.



hospitals and 26,000 clinics nationwide that use the system.

Even when patients can’t remember where previous tests and treatments took place, Fine can often find their records by typing in their home ZIP code. Care Everywhere then lists all the nearby institutions that use Epic. With a single click, he can request information from all of them.

In 2014, clinicians with Johns Hopkins Medicine used Care Everywhere 158,277 times to share information with 172 hospitals and clinics in 44 other states, according to a report generated by the electronic medical record company. The top exchange partners were Mercy Medical Center, Anne Arundel Medical Center and the University of Maryland Medical Center.

Kelly Cavallo, administrator for Epic operations, says Care Everywhere is particularly useful for patients who come to Johns Hopkins with complex conditions, sometimes toting thick folders of documents that are not organized in any particular way. With Care Everywhere, clinicians can easily find the information they need, which they can add to patients’ records in the form of notes.

To protect patient privacy, clinicians

must indicate that they are using the information for treatment purposes only, and patients must give consent to the institution relinquishing the records, explains Donald Bradfield, senior counsel and leader of Johns Hopkins’ health information privacy group. When other Epic-using institutions request patient information from Johns Hopkins, patients must sign a form created by Johns Hopkins, Bradfield says. If the patient is unable to give consent, a clinician must sign.

“Not a week goes by that I don’t see some patient from another Epic institution,” says John Flynn, internist and Epic medical director. With Care Everywhere, he can study recent test results and spot patterns that can lead to improved treatment. For example, he says, he ordered a liver biopsy for a patient after looking through records from a different hospital and recognizing signs of alcoholism.

Care Everywhere reduces test duplication, saves money and speeds up treatment, says Fine. “On at least two occasions I can think of, I didn’t order a number of studies because they had been done the week before,” Fine says. “Having that information helped us make decisions on the spot.”

—Karen Nitkin

Charting a Course Outside the Academy

(continued from page 1)



Risa Burr discusses the Biomedical Careers Initiative with Mohit Mathew at a career-planning event in Turner Concourse. “I’m exploring all my options,” says Mathew, 27, a Ph.D. candidate in biomedical engineering who hopes to work for a pharmaceutical company. Burr, 26, is pursuing a Ph.D. in biochemistry, cellular and molecular biology. She has been learning about science administration through BCI and wants to make sure other students know about the resource.

employer’s publish-or-perish imperative. “I want to get people excited about science,” she says.

So she turned to the Biomedical Careers Initiative (BCI).

This resource, created in 2013, helps Johns Hopkins biomedical graduate students learn about jobs beyond the faculty research posts that were once considered the sole logical next step for people with advanced degrees. With BCI’s help, Raines secured a three-month internship at the American Society for Biochemistry and Molecular Biology in Rockville, Maryland. Supported by a BCI stipend, she analyzed data for a grant program that promotes science engagement. The work confirmed her interest in outreach and has helped prepare her for a future job search.

Faculty Jobs No Longer the Norm

Nationwide, fewer than 15 percent of biomedical Ph.D. graduates and fewer than 10 percent of entering Ph.D. students will get research faculty positions, according to a 2014 *Cell Press* article. And competition keeps getting fiercer as the pool of Ph.D.s continues to grow but the number of such jobs stagnates under funding constraints.

Students, meanwhile, are eager for information about careers outside of academia that build on their abilities to understand complex ideas, analyze data and work independently.

In this year’s annual survey of the roughly 800 biomedical graduate students in the school of medicine, research faculty jobs remained the top choice for 27 percent, with the remaining 73 percent saying they’d prefer jobs in government, industry, K-12 schools or nonprofit organizations.

“I just don’t know if I want to write grants all the time or teach at a graduate level,” says Alyssa Walker, 28, a recent leader of the Graduate Student Association, who is studying the behavior of breast cancer cells; she’s in her sixth year of a Ph.D. in pathobiology. Through BCI, she is learning about a variety of research careers and thinks she might want to work at the National Institutes of Health, conducting research in a setting that doesn’t require teaching or grant writing.

Opportunities for Development

Until recently, few resources existed at Johns Hopkins and other centers of higher biomedical education to help students like Raines and Walker develop and market their skills to nonacademic employers. Professors tend to steer students toward tenure-track jobs, and students immersed for years in research labs have little exposure to other options.

BCI fills this gap, says its program manager, Arhonda Gogos, who has a doctorate in biophysics from Johns Hopkins and serves as academic program manager of the Biochemistry, Cellular and Molecular Biology Graduate Program.

The BCI website (bci.jhmi.edu/) provides information about such careers as science writing, patent law, biodefense, and research for pharmaceutical or medical device companies.

For each career path, students can find resources, recommended coursework across Johns Hopkins schools, volunteering ideas and “day in the life” vignettes from alums in the field. BCI also provides networking events, educational seminars and internships.

“We try to expose students to all the careers that are available to them,” says Peter Espenshade, director of BCI’s parent organization, the Center for Innovation in Graduate Biomedical Education. The center was established in 2012 as part of Johns Hopkins Medicine’s

strategic priority to “lead the world in the education and training of physicians and biomedical scientists.” BCI, formed with funding from the Office of the Provost, is the center’s first major project.

Learning by Doing

In the past two years, BCI has placed 18 students in internships in commercial and nonprofit organizations. The internship at the Ovarian Cancer National Alliance was created by its policy director, Laura Koontz, who completed her Ph.D. in biochemistry, cellular and molecular biology at Johns Hopkins in 2011.

“When I started grad school, I really thought I was going to wind up in academia,” says Koontz, whose doctoral research on fruit flies examined anomalies linked to cancers. “I’m very proud of my work,” she says, “but I started to miss that big picture of thinking about patients and science writ large.”

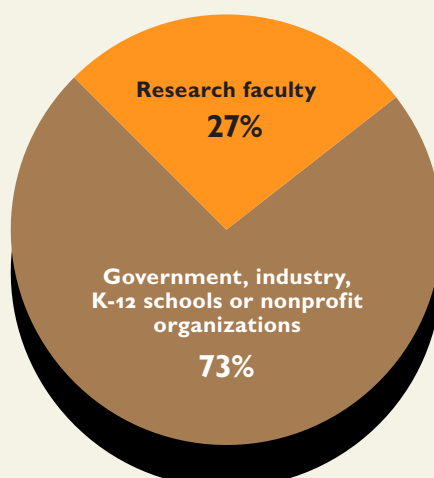
Remembering her own lack of resources as she explored career options, Koontz quickly agreed to help BCI when she was approached by Gogos. The first student in the internship took on the task of updating a state-by-state report of care options for women with ovarian cancer.

A BCI-organized internship at Eli Lilly and Co. gave Laurene Cheung, 30, an insider perspective of the pharmaceutical industry. “I really like how teams throughout the organization collaborate to bring therapies into the marketplace,” says Cheung, who is interested in conducting research that leads to treatments. She plans to apply to jobs in industry and academia when she completes her doctoral training in cellular and molecular medicine next year.

“Now I understand what’s behind a couple more doors,” says Cheung. “One thing I’ve realized is there’s more flexibility in your career path than you think.”

—Karen Nitkin

WHAT’S YOUR DREAM CAREER?
In an annual survey, 800 biomedical graduate students responded as follows.



Source: Johns Hopkins University School of Medicine Graduate Student Association



Watch a video to find out how graduate students have benefited from the internships: bit.ly/jhubiomedcareersinternships.

Creating Community Health Leaders

The MERIT program helps Baltimore teens prepare for medical careers.

WHEN HE WAS 8, KAHLID FOWLKES stood on a Baltimore street and watched in horror as a family friend was fatally shot in the head. At age 15, he stood in an operating room at The Johns Hopkins Hospital and witnessed lifesaving surgery as doctors removed a tumor from a patient's brain. After the shooting, Fowlkes says, his grades suffered. But in eighth grade, he got serious about academics and placed at the top of his class.

Fowlkes, now 16 and a senior at Paul Laurence Dunbar High School, is planning a future as a trauma surgeon. He credits MERIT, the Medical Education Resources Initiative for Teens, with helping him reach his potential. "It opened up doors and opportunities," says Fowlkes.

This summer, MERIT placed him in a Johns Hopkins neurology lab, where he dissected mice for research on autism and other nervous system disorders. He's learning leadership and public speaking skills. And his essay about his experiences with MERIT helped him win a \$40,000 Henrietta Lacks Dunbar Health Sciences Scholarship, established by Johns Hopkins in 2011.

The rigorous and competitive MERIT program, created five years ago by Johns Hopkins medical students Tyler Mains and Mark Wilcox, accepts sophomores from high schools throughout Baltimore. MERIT Scholars devote summers and school-year Saturdays to activities that prepare them for health careers. They shadow professionals, work in research labs, study health disparities, prepare for the SATs and learn leadership skills.

To make all this possible, MERIT, which counts Johns Hopkins Bayview Medical Center and the Johns Hopkins University School of Medicine as its two largest partners, relies on about 250 volunteer health care workers, educators and scientists across the city, says Mains.

This year, 80 students applied for 20 spots, says Mains. The successful applicants don't necessarily have the highest grades, he says, but they must demonstrate that they are professional, organized, motivated, calm under pressure and concerned about health care disparities.

Mains and Wilcox were instructors with Teach for America when they started MERIT to address two trends they witnessed in Baltimore: students lacking academic guidance, and families using emergency rooms as their primary source of health care. MERIT can solve both problems, says Mains, by helping teens become health care leaders in their communities.

The founders enlisted Richard Bennett, president of Hopkins Bayview, and David Hellmann, director of the Department of Medicine at the medical center. The executives joined MERIT's advisory board and created internships and learning opportunities funded through Hopkins Bayview.

"We're trying to identify people who, with structured mentorship and training, could emerge as physicians and scientists," says Bennett, who notes that between MERIT and other programs, Hopkins Bayview provides about 50 internships per summer to Baltimore high school students.

One July day, a classroom in the Anne and Mike



Guided by mentor Oliver Rogers, Savannah Tripp adjusts the pH level in material where cells are growing.

"HE DOESN'T JUST SHOW ME STUFF; HE LETS ME DO IT."

—RISING SENIOR SAVANNAH TRIPP

Armstrong Medical Education Building contained 20 rising juniors, MERIT Scholars working in groups to analyze causes of health disparities. Lateshia Scott, 16, of Western High School, was helping develop a public education campaign called Keep Your Cup Size to bring information about early breast cancer detection techniques to low-income communities.

Scott wants to be an intensive care pediatrician, a career choice confirmed when she went on Grand Rounds in the pediatric intensive care unit at The Johns Hopkins Hospital. "To be able to say you've changed somebody's life is amazing," she says.

Rising senior Savannah Tripp was in a Johns Hopkins Hospital lab, learning how to place prostate cancer cells on a slide, color them with dye and analyze what happens when they are exposed to a potential treatment. She praises her mentor, pharmacology graduate student Oliver Rogers, for providing meaningful work. "He doesn't just show me stuff; he lets me do it," the 17-year-old Western High School senior says.

Tripp plans to become a sports medicine doctor. "I like to help people, and I'm good at science," she says. "If it weren't for MERIT, I don't think I would be as on track."

—Karen Nitkin



For more information about MERIT, visit meritbaltimore.org.



Dunbar High School senior Kahlid Fowlkes is considering a career as a trauma surgeon.

Opening Doors

MERIT continues a long Johns Hopkins Medicine tradition of providing guidance, learning experiences and opportunities to young people in Baltimore City. The programs below reach hundreds of students per year.

- **The Dunbar High School Health Partnership**, established in 1985, provides health career and college guidance to Paul Laurence Dunbar High School students through mentoring, internships, job shadowing, presentations and academic collaborations with Dunbar teachers and administrators.
- **The Johns Hopkins Summer Jobs Program**, launched in 1994, places about 250 Baltimore City teens per summer in paid internships throughout the Johns Hopkins Health System and The Johns Hopkins University. Students also attend professional development seminars on topics including teamwork and financial literacy. For 2015 only, a second session was added, bringing participation to more than 300.
- **Start on Success**, a Baltimore program that debuted in 1997, provides internships and mentoring to students with disabilities. The Johns Hopkins Health System was one of the first participants and continues to place about 15 students per year.
- **Building Our Neighborhood Dreams Beyond Our Neighbors' Doors (Bond-to-Bond)**, introduced in 1999, provides school-year mentoring and internships at The Johns Hopkins Hospital and Health System to 10 to 20 students per year.
- **Adopt-a-Class**, started in 2002, reaches more than 150 fourth graders in four Baltimore elementary schools. They learn about health care careers through once-a-month presentations from Johns Hopkins Medicine volunteers and a tour of The Johns Hopkins Hospital. This program is slated for expansion to include middle schools.

A Phone Call from a PAL

Leaving the hospital is only the first step toward recovery. The Patient Access Line helps patients and families sort out care orders.

IN AN ADMINISTRATIVE OFFICE crowded with desks and computers, a select group of nurses is answering questions and allaying the fears of freshly discharged patients.

Nurse Susan Glinsmann reads about “Jane” in the electronic medical record on the screen in front of her. The 84-year-old woman is scheduled for a pacemaker implant at Johns Hopkins in a little over a week. She recently had a bout of shortness of breath and abnormal heart rhythm. Following her cardiologist’s advice, she came to the Emergency Department and ultimately spent two days in the hospital. When she was released, Glinsmann notices, there were changes to her medication regimen.

Jane takes a variety of medications, ranging from fiber supplements to an antibiotic prescribed to treat a urinary tract infection. During their phone call, Glinsmann reviews each one in detail. Then she comes to a new prescription.

“What about the hydralazine?” she asks.

“The what?”

“The hydralazine,” Glinsmann repeats. “Fifty milligrams, three times per day. For your blood pressure.”

“That’s not what I take for blood pressure,” says Jane. “I take Diovan.”

What happens next in the conversation will be crucial to the success of the Patient Access Line (PAL), a telephone follow-up service that helps patients and their families better manage their postdischarge directions.

Twenty-one inpatient units at The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center participate in the service, which operates during the workweek, and more are slated to join.

Supported by a three-year federal grant, PAL is part of an effort to avoid readmission for discharged patients. The system works this way: Usually no more than a day passes before a patient gets a



Susan Glinsmann leads a team of nurses who make follow-up telephone calls to patients discharged from The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center.

phone call from a Johns Hopkins nurse. Using information from Epic electronic medical records and several other databases and systems, the nurse makes sure that each patient understands the care directions and will also answer any questions caregivers might have.

There can be many new challenges—prescriptions to fill, follow-up appointments to schedule, bandages to change, new diets.

“We have to do a little detective work before we make a call,” says Glinsmann,

who leads the team of nurses in the call center. “For instance, we know someone was discharged, but where did they go? Home? To rehab? To jail? We comb through a lot of info to find out as much as we can before we call patients.”

PAL nurses help resolve any clinical issues that arise by contacting the patient’s medical team. A priority is making sure that patients follow their medication orders.

Before Jane left the hospital, for instance, she filled a new prescription

for hydralazine but didn’t understand that she was to stop taking her old hypertension medicine.

“The doctor took you off Diovan, Jane,” Glinsmann tells her. “So now your new blood pressure medicine is hydralazine.”

“Oh,” Jane says. “I’m glad you called. I wouldn’t have known that.”

As Jane is scheduled to return for a preoperative appointment, Glinsmann also walks her through those details. Then she answers Jane’s questions about surgery and asks about her diet.

“It looks like they put you on a cardiac diet. Is that new for you?”

“Oh, yeah,” Jane groans. “Low salt and low fat.”

The nurse offers her the option of talking to a nutritionist.

“I think that would help,” Jane says. “I’m not used to this.”

Later Glinsmann notes that the elderly woman might easily have taken two blood pressure medications had she not spoken with her. She says that patients are generally happy to hear from the PAL team, even if they don’t have questions about their discharge instructions.

“Most people are glad to get a chance to talk about their hospital experience,” she says.

Jane, for one, was eager to share. “It was beautiful until they moved me to the old building. I didn’t mind the building, but I got a mattress with a sinkhole in it. Then they got me a nice new mattress but discharged me as soon as I got comfortable!”

The nurse apologizes for the discomfort and makes a note to tell Patient Services about it. Meanwhile, the patient reports that she was pleased with her care overall—and will continue to trust her cardiac health to Johns Hopkins.

—Patrick Smith

BIOMEDICAL DISCOVERY

Asthma’s New Hot Zones

Johns Hopkins study challenges long-standing belief that city dwellers suffer more from asthma.

A JOHN HOPKINS CHILDREN’S CENTER study of more than 23,000 U.S. children reveals that income, race and ethnic origin may play far more potent roles in asthma risk than kids’ physical surroundings.

The study, based on comparison of childhood asthma rates in cities and outside of them, found no differences in asthma risk between children living in urban areas and their suburban and rural counterparts.

“Our results highlight the changing face of pediatric asthma and suggest that living in an urban area is, by itself, not a risk factor for asthma,” says lead investigator Corinne Keet, a pediatric allergy and asthma specialist. “Instead, we see that poverty and being African-American or Puerto Rican are the most potent predictors of asthma risk.”

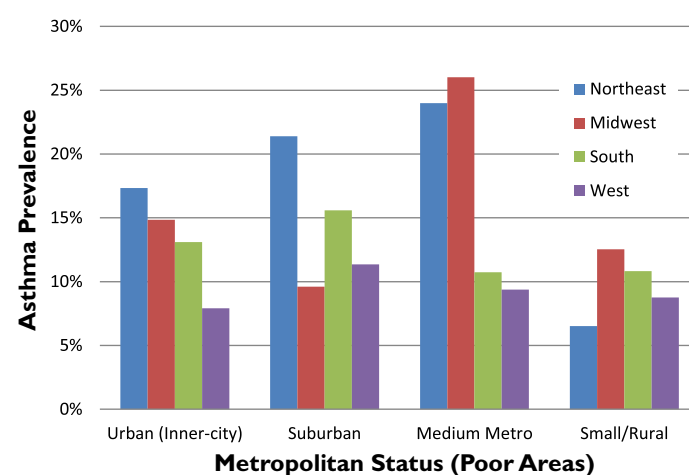
For several decades now, public health experts have found that certain aspects of urban living—pollution, cockroach and other pest allergens, higher rates of premature births, exposure to indoor smoke—make inner-

city children more prone to developing asthma. But while all those factors continue to fuel asthma risk, the investigators say, they may no longer be exclusive to or even predominant in inner-city areas, and the new study findings bear out this phenomenon.

The results, the researchers say, reflect powerful demographic shifts at work, such as increasing poverty in suburban and rural areas, and the movement of racial and ethnic minorities out of inner cities. Therefore, they add, public health interventions should also reflect this changing reality.

“Our findings suggest that focusing on inner cities as the epicenters of asthma may lead physicians and public health experts to overlook newly emerging ‘hot zones’ with high asthma rates,” says Elizabeth Matsui, a pediatric asthma specialist and senior author of the study that appeared in January in the *Journal of Allergy and Clinical Immunology*.

—Ekaterina Pesheva



ASTHMA PREVALENCE according to metropolitan status and region among children living in poor areas (defined as neighborhoods with >20 percent of households below the poverty line). Source: *Journal of Allergy and Clinical Immunology*

QA Phoebe Bacon, Johns Hopkins Children's Center Librarian

Book Therapist

EVERY WEEKDAY MORNING, AS medical rounds in the Johns Hopkins Children's Center wrap up, Phoebe Bacon finishes arranging 100 books on a three-tiered cart and heads to a unit. Room by room, the Children's Center librarian tells patients and their parents about the hospital's library and offers assistance finding a desired book. Then she invites them to pick books from the cart—favorites like *Piggie & Elephant* by Mo Willems or Bernard Most's *La Vaca Que Decia OINK*. Drawing from more than two decades as a school librarian, Bacon can offer a quick summary of nearly any book on the cart.

As a child who grew up traveling overseas with her family, Bacon understands how books can create a refuge. At the same time, she feels comfortable in a hospital setting; Bacon worked as a nurse in the adolescent psychiatric unit at the Johns Hopkins Children's Center. After deciding to pursue a master's degree in library science, however, she worked for 23 years at independent schools and at the Enoch Pratt Free Library. The position of hospital pediatric librarian, which she took in 2012, merges her nursing and library backgrounds.

How many books are in the library? And why does a pediatric hospital need a library?

There are currently about 6,000 books. The library serves as a resource for parents seeking complete, unbiased information on such topics as special diets and managing chronic illness and databases for scholarly research. It also provides picture books for Child Life staff seeking



WENDY SMITH

books to help children cope with a new diagnosis, bereavement and anxieties. And it provides books for parents to read aloud to their children. Finally, it offers inviting chapter books that can transport children of all ages out of the hospital.

How do you select books for hospitalized children?

I buy the same books that I would select in any setting; those with illustrations and words that catch my imagination, make me laugh, or take me on an adventure.

What are some favorites among the children?

For 5-year-olds and under, I have the most success with picture books. Boys like *Diary of a Wimpy Kid*; girls love *Dork Diaries*. Graphic novels are also popular.

What's a typical week?

In addition to preparing the book cart, I meet with parents and patients to suggest age-appropriate reading material, help with searches for information on their health issues and invite them to visit the library. Once a week, I head to the pediatric outpatient Harriet Lane Clinic and leave donated books in the waiting room for anyone to pick up, read and take home.

With all the technology at kids' fingertips these days, do books still appeal to them?

For many kids who are given a choice between a book and the Internet, the latter will win. A book is a tougher sell today. But kids still read for the same reasons we have always read—it's pure pleasure to curl up with a book (or electronic reader) and escape into that mystery, graphic novel or fantasy.

—Interview by Judy F. Minkove

An Inviting Refuge

Located on the third floor of the Children's Center, the Grace Rea Garrett Children's Library and Mr. & Mrs. G. Lloyd Bunting Sr. Family Resource Center is open Monday through Friday, 9 a.m. to 5 p.m. An online catalog is available in the library and via TigerNet in patients' rooms. Books can remain with patients throughout their hospital stay but must be returned before discharge.

Learn more: bit.ly/jhhchildrenscenterlibrary

IN BRIEF

Levi Watkins Jr. Memorial Celebration



Join colleagues for a celebratory tribute to Levi Watkins Jr., Johns Hopkins' pioneering cardiac surgeon, former associate dean of postdoctoral affairs, civil rights activist and founder of the annual Martin Luther King Jr. Commemoration. The event will take place on **Thursday, Sept. 24, from noon to 1:30 p.m.** in Turner Auditorium and Concourse on the East Baltimore campus. United Voices will perform during the program, which will include remarks from leadership, students and a family member. A reception follows. Learn more at insidehopkinsmedicine.org/mlk.

Shuttle Bus Upgrade

When the Sibley Memorial Hospital Foundation's board learned that the shuttle service's bus needed to be replaced, it saw an opportunity to promote the hospital. Motorists and pedestrians can't miss the new graphic of an oversized doctor's bag topped by a stethoscope that gives information about the hospital. The shuttle continues to provide patients and visitors with free transportation between the Tenleytown-AU Metro station, located on the Red Line, and Sibley's campus. The bus runs continuously from 6 a.m. to 5:30 p.m. Learn more: bit.ly/sibleyshuttleservice.



Sibley President Richard "Chip" Davis, left, and foundation board trustee Jeff Boden stand outside the eye-catching bus.

5K to Benefit Johns Hopkins Bayview Burn Center



Johns Hopkins Bayview Medical Center will host its second annual 5K race, 1-mile walk and community health fair on **Saturday, Oct. 3, from 8 to 11 a.m.** on the Hopkins Bayview campus. Steps in a Safe & Healthy Direction will raise money for Johns Hopkins Bayview Burn Center community outreach and education programs. The free health fair showcases more than 30 Hopkins Bayview services and community agencies. Highlights include face painting, the Charm City Roller Girls and a visit from the Baltimore City Fire Department. Register and learn more at hopkinsmedicine.org/jhbmc/steps.

Employee Service Milestones

Continuing a tradition of recognizing dedicated employee service, The Johns Hopkins Hospital and Health System Corporation will host the 2015 Employee Appreciation Celebration on **Tuesday, Sept. 29, from noon to 1:30 p.m.** in Turner Auditorium on the East Baltimore campus. The ceremony honors Johns Hopkins Hospital and Health System Corporation employees with 10, 20, 30, 40 or 50 years of service. Three employees will also receive the Baker-King Award, the Human Resources Presidential Leadership Award and the Edward A. Halle Prize for Excellence in Patient Service. Learn more: hopkinsmedicine.org/human_resources/news_events/employee_appreciation.

Ebola Treatment Grant

The Johns Hopkins Hospital and the state's Department of Health and Mental Hygiene have received a \$3.2 million grant from the U.S. Department of Health and Human Services to help pay for the new Biocontainment Unit completed last May for patients with highly infectious diseases, such as Ebola virus disease. The new unit can treat up to four highly infectious patients at a time.

Pulmonary Hypertension Accreditation

The Pulmonary Hypertension Program, headed by Paul Hassoun, M.D., in the Division of Pulmonary and Critical Care Medicine, has received accreditation from the Pulmonary Hypertension Association as the only comprehensive pulmonary hypertension care center in Maryland—and one of just 26 such centers in the country.

Chief Pharmacy Officer

Daniel Ashby, M.S., senior director of the Department of Pharmacy at The Johns Hopkins Hospital since 1999, has been appointed the first

chief pharmacy officer for the newly formed academic division. In this new role, he will be responsible for overseeing the pharmacies at both The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center.

New Associate Dean

Namandje Bumpus, Ph.D., associate professor of medicine and of pharmacology and molecular sciences, has been named the inaugural associate dean for institutional and student equity. In this new position, she will focus on efforts to ensure academic achievement and institutional equity for graduate biomedical students.

Notable Nurses

Ronald Langlotz, B.S.N., M.S.N., a 16-year Johns Hopkins nursing veteran, has been appointed director of nursing for the departments of Medicine and of Radiology and Radiological Science. A school of nursing alumnus, Langlotz has also served in leadership positions in the neurological critical care unit, the critical care transport team, endoscopy and the Osler 8 Biocontainment Unit. He also served as a reserve member of the U.S. Navy Nurse Corps.



Scott Newton, D.N.P., R.N., E.M.T.-P., has been named director of nursing for the Department of Emergency Medicine and the Johns Hopkins Lifeline Transportation Program. Newton, whose career began 28 years ago as a volunteer ambulance dispatcher, had previously been assistant director of nursing for Lifeline.



LINING UP FOR FOOTBALL SEASON: Johns Hopkins Hospital nurse practitioner Suzette Heptinstall checks 7-year-old football player Elijah Stanley's blood pressure during a physical exam. Elijah plays for the Baltimore City Fellowship of Christian Athletes Park Heights Saints club, which fields six different teams of players ages 5 to 13. Heptinstall recently volunteered to provide preseason physical exams along with Johns Hopkins Hospital nurse Nancy Sujeta. Nurse practitioner Peggy Lang from Johns Hopkins Bayview Medical Center and certified nurse assistant Jasmine Jordan also participated. Sujeta has volunteered with the Saints for several years. "I'm passionate about doing what I can to help these little guys," she says.

Blumenthal Awards

The annual **Stanley L. Blumenthal, M.D., Cardiology Research Awards** for postdoctoral fellows have been bestowed following the division's yearly cardiovascular research retreat. First place for oral presentations went to **Anneline te Riele**; second place, to **Seth Martin, M.D., M.P.H.**; third place, to **Yuejin Li**; and fourth place, to **Aishi Nakamura**, all research fellows in cardiology. First place for poster presentations in clinical research went to **Thorsten Leucker, M.D., Ph.D.**, a cardiology postdoctoral fellow; second place went to **Micaela Lantorno, M.D.**, a cardiology postdoctoral fellow; and third place went to **Cathy Handy, M.D., M.P.H.**, an Osler Service medical resident. First place in basic science research went to **Worawan Limpitikul**, second place went to **Mark Ranek** and third place went to **Gunsik Cho**, all cardiology research fellows. The Blumenthal awards were established in 2004 by his widow, Anita; his son **Roger Blumenthal, M.D.**, head of the Ciccarone Center for the Prevention of Heart Disease; and his daughter-in-law, **Wendy Post, M.D.**, professor of medicine. Stanley Blumenthal earned his undergraduate and medical degrees at Johns Hopkins and trained in pediatrics here.

EAST BALTIMORE

Deidra Crews, M.D., Sc.M., assistant professor of medicine in the Division of Nephrology and head of the Department of Medicine's Diversity Council, has been elected to the board of directors of the National Kidney Foundation of Maryland.

Barbara Fivush, M.D., professor of pediatrics, has been chosen as one of 54 new members of the 2015–2016 Executive Leadership in Academic Medicine Program for Women, a yearlong, part-time fellowship program held annually at Drexel University's College of Medicine devoted to developing professional and personal skills required for health care leadership positions, focusing on the unique challenges facing women.

Bert Vogelstein, M.D., professor of oncology and pathology and director of the Ludwig Center for Cancer Genetics and Therapeutics at the Johns Hopkins Kimmel Cancer Center, has been awarded Johnson & Johnson's 2015 Dr. Paul Jansen Award for Biomedical Research. The \$200,000 award recognizes Vogelstein's two decades of breakthroughs in oncology research focused on examining the genetic and biochemical events that initiate the development of tumors.

JOHNS HOPKINS HEALTHCARE

Laura Herrera Scott, M.D., M.P.H., has been appointed to the newly created position of medical director for population health and community health programs. She will be responsible for providing physician leadership in the design, development, implementation and evaluation of the population health care management programs of Johns Hopkins HealthCare and the Johns Hopkins Medicine Office of Managed Care and Population Health. Previously deputy secretary of public health services for Maryland's Department of Health and Mental Hygiene, Herrera Scott has also held leadership positions in the Veterans Health Administration and with the Baltimore City Health Department. Early in her career, she served as a clinical associate at The Johns Hopkins Hospital's Moore Clinic for HIV/AIDS care.

Marketing and Communications Kudos

Johns Hopkins Medicine Marketing and Communications and its editorial services and marketing teams have won five gold and two silver Aster Awards, bestowed by *Marketing Healthcare Today* magazine to recognize excellence in medical marketing. Gold awards went to *Dome*, in the category of internal newsletters; the *Johns Hopkins Surgery* winter 2014 issue and Johns Hopkins HealthCare's *Hopkins Across the Board*, in the external newsletters category; the HIPAA Keep It Private campaign, in the internal advertising category; and Suburban Hospital's My Get Well Kit/Patient Handbook, in the patient education category. Silver Aster awards went to *Inside Hopkins* in the internal newsletters category and to Suburban Hospital's website. Suburban's patient handbook also won the Center for Plain Language's 2015 Grand ClearMark Award and two Silver Healthcare Advertising Awards from *Healthcare Marketing Report*. In addition, Suburban's sepsis awareness video was honored by Healthcare Marketing, and its 2014 "Sondra D. Bender Annual Nursing Report" won a Gold Hermes Award, an international accolade for concept, writing and design of marketing materials.

JOHNS HOPKINS BAYVIEW MEDICAL CENTER

Sandy Reckert-Reusing has been promoted to senior director of marketing and communications. She has served as director for eight years and has been a member of the department since 1989. As director, Reckert-Reusing has led initiatives to expand the department's work in areas of strategic marketing and outreach, digital marketing, and social media strategies.

SIBLEY MEMORIAL HOSPITAL

Nimisha Kalra, M.D., instructor in medicine, has become the inaugural medical director of the occupational health and safety department. She will implement

guidelines for work-related illnesses and injuries and establish new services.

Marissa McKeever, J.D., has been named director of government and community affairs. Her responsibilities will include representing the medical center's local legislative and regulatory interests, as well as fostering and managing the development of partnerships with local businesses and the community. McKeever previously served as a senior legislative assistant for the Council of the District of Columbia.

Shannon Morris, M.S.O.D., has been appointed to the new position of senior director of patient experience. She will act as a coach and mentor to ensure that all areas of the medical center provide an exceptional patient experience. Morris previously worked at Children's National Medical Center in Washington, D.C., as a service excellence manager.

The Stroke Center at Sibley Memorial Hospital has received Medelia Inc.'s Women's Choice Award for serving as one of the nation's best stroke centers in 2015. To qualify for the award from the customer satisfaction rating organization, hospitals must be certified as advanced primary stroke centers or advanced comprehensive stroke centers by the Joint Commission. They must also have received above-average patient recommendation scores.

Dome

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