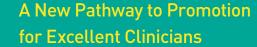
breakthrough NUMBER 24 • HOLIDAY 2019



Four-Legged Visitors at the Bedside

Hope in the Face of Addiction

Aging and an 'Evolutionary Trade-Off'

THE JOHNS HOPKINS CENTER FOR INNOVATIVE MEDICINE Medicine is a public trust



David B. Hellmann, M.D., M.A.C.P. Aliki Perroti Professor of Medicine; Vice Dean, Johns Hopkins Bayview Medical Center; Chairman, Department of Medicine

A NEW PATH TOWARD PATIENT-CENTERED CARE

When Bill Brody, longtime Johns Hopkins University president, encouraged me to "think big" in creating the Center for Innovative Medicine back in 2005, I took him at his word (p. 10). Today, some 14 years later, I'm gratified to see important CIM initiatives bearing fruit and having a big impact in advancing medicine as a public trust.

Consider the Miller Coulson Academy of Clinical Excellence, which we launched in 2008 to celebrate our doctors who are the "best of the best" at providing patient-centered clinical care. As you'll learn in this issue (p. 2), the academy has served as the impetus and the model for an entirely new faculty promotion pathway being rolled out this fall at Johns Hopkins. For the first time in the history of the Johns Hopkins University School of Medicine, faculty members who are passionate about providing outstanding patient care now have a clear track for advancement. I'm extremely proud that the rigorous process that Scott Wright and his colleagues established at the Miller Coulson Academy for measuring clinical excellence was so critical in demonstrating to school of medicine leaders that great doctoring can indeed be judged by objective standards. I'm also excited to serve as co-chair of the new Clinical Excellence Promotions Committee, together with psychiatrist Meg Chisolm, a Miller Coulson Academy scholar. With this new promotion track in place, I'm confident that Johns Hopkins will be better equipped than ever to attract – and retain – the best clinicians from across the country and around the world, and our patients will be the beneficiaries.

Of course, there are plenty of other CIM people and projects who are advancing our mission of thinking big – from radiologist Pam Johnson's efforts at the national level to reduce unnecessary medical testing while advancing "high-value" medical care (p. 12), to addiction specialist Michael Fingerhood's leadership of the Comprehensive Care Practice, which celebrates its 25th anniversary this year (p. 6). Established at a time when Baltimoreans struggling with addiction and HIV had few options for primary care, the program has saved the lives of countless Baltimoreans and provided hope to many, many more.

None of this important work would be possible without your generous support, and for that, all of the members of the Center for Innovative Medicine and I are immensely grateful.

David B. Hellown, M.D.

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A New Pathway

Excellent clinicians at Johns Hopkins now have a track for promotion, thanks in large part to groundwork laid by the Miller Coulson Academy of Clinical Excellence.

Four-Legged Visitors

A pet therapy program launched by Stephanie Cooper Greenberg is growing by leaps and bounds, bringing canine/human handler teams and their special brand of compassion to pediatric wards, ICUs, stroke units and psychiatry wings across Johns Hopkins.

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Hope in the Face of Addiction

Led by Michael Fingerhood, the Comprehensive Care Practice at Johns Hopkins is celebrating 25 years of providing judgment-free support to people fighting dependence on drugs or alcohol.

Aging and 'An Evolutionary Trade-off'

Mark Anderson explains how his cutting-edge bench science holds the potential for tantalizing new insights into the mechanisms of how we age. 8

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Medicine belongs to the public. Our mission is to create a different kind of academic medicine, to tear down ivory towers, share knowledge and dedicate ourselves toward one goal — making life better for patients.

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A New Pathway to Promotion for Excellent Clinicians

For years, Scott Wright found himself flummoxed when advising excellent clinicians in his division who were looking to be promoted at Johns Hopkins. "As a division chief, I have faculty members who are just outstanding when it comes to providing patient care. That is their passion and what they love to do. But unless they were willing to spend time away from patients, writing grant proposals and doing research, there was no way forward," says Wright, the Anne Gaines and G. Thomas Miller Professor of Medicine.

All that changed this fall with the rollout of a new track in clinical excellence. It provides a new path to promotion at Johns Hopkins Medicine – one that will recognize faculty members for their skill and empathy with patients.

"It's a great day!" says Wright. "We now have a system in place to reward those doctors who spend the majority of their time providing excellent care to patients. Now they, too, can be promoted to the rank of associate professor and full professor!"

Just as gratifying to Wright and others at the Center for Innovative Medicine (CIM) is that the foundation for the new promotion pathway was laid by CIM's Miller Coulson Academy of Clinical Excellence, which launched in 2008 with Wright as director.

"As an institution, we pride ourselves on doing things rigorously and objectively, but up until the Miller Coulson Academy, there was general skepticism that clinical excellence could be measured in a clear and consistent way," says Cynthia Rand, senior associate dean for faculty. "But the Miller Coulson Academy really made a mark, both locally at Johns Hopkins and nationally, by developing a truly rigorous process – including extensive internal and external peer review and objective clinical metrics – for measuring excellence in clinical care."

Each year, only a small percentage of the most respected physicians who are invited to apply to the academy (after having been nominated by many peers) are ultimately offered membership. One key element to the process is external evaluation: Master clinicians from top academic institutions around the country review and score the clinical portfolios that are submitted. When building their portfolios, applicants must provide the names of 10 patients, 10 physician peers, 10 learners and 10 non-physician clinical providers (e.g., nurses and medical assistants) who provide confidential assessments across eight domains of clinical excellence.

"We now have a system in place to reward those doctors who spend the majority of their time providing excellent care to patients. Now they, too, can be promoted to the rank of associate professor and full professor!"

Scott Wright, director, Miller Coulson Academy of Clinical Excellence

"As the Miller Coulson Academy advanced," says Rand, "we were able to use its groundbreaking work as part of our rationale in our presentation to school of medicine leaders that yes, indeed, we do know how to measure clinical excellence fairly and to create a rigorous promotional pathway. Without the Miller Coulson Academy, we never would have been able to successfully make that argument."

A new Clinical Excellence Promotions Committee, led by CIM Director David Hellmann and psychiatrist. Meg Chisolm, herself a Miller Coulson Academy member, will review promotion applications in the clinical excellence track. The first applicants will likely be Miller Coulson inductees (now numbering more than 90). In addition to demonstrating their strength in clinical care, successful applicants must also shine outside the clinic by actively disseminating clinical excellence scholarship at regional and national levels, teaching, and participating in the discovery mission. Rand expects to see the first candidates move through the process, and potentially earn their new ranks, by late 2019 or early 2020.

She notes that those who worked on the initiative (including Wright; David Eisele, director of otolaryngology–head and neck surgery; and Janice Clements, vice dean for faculty in the school of medicine) were intentional in their naming of the new track.

"The Miller Coulson Academy really gave us the 'bones' for building this new pathway, and we wanted to be very clear that 'excellence' is key to how clinicians will be evaluated," Rand says. "While we are among the last academic medical centers to establish a promotion pathway for clinicians, we are unique – perhaps even the first – in creating a promotion pathway in clinical excellence."



'As the Miller Coulson Academy advanced, we were able to use its groundbreaking work as part of our rationale in our presentation to school of medicine leaders that yes, indeed, we do know how to measure clinical excellence fairly and to create a rigorous promotional pathway."

Cynthia Rand, senior associate dean for faculty

For his part, Wright says he is overjoyed by what the new promotion pathway will mean for his efforts to recruit and retain top doctors. "Now, when I'm talking to our residents, who are all about providing great patient care, I can say, 'There is now a path for you to join our faculty and move through the ranks here, based on your passion.'

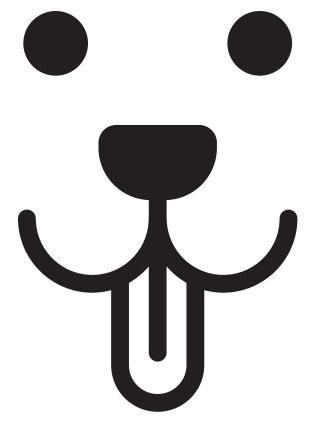
I couldn't be happier."

PATIENT-CENTERED CARE

Four-Legged Visitors at the Bedside

It's a familiar sight on the 12th-floor adolescent psychiatry wing at the Johns Hopkins Children's Center: Grendel, a friendly chocolatebrown Mastiff the size of a polar bear, walks into the lounge for his regular visit with handler Anne Efron, and the eyes of all of the teen patients light up.

"He will plop right down, and before you know it, eight kids are just loving him to pieces," says Stephanie Cooper Greenberg, who first launched the pet therapy program at The Johns Hopkins Hospital in 2009. At that time, the hospital had no more than three canine/human handler teams; she and her beloved Dalmatians, Mattilda and Willamina, were among those pilot pairs. She now handles their successors, Olive and Josephine, both Dalmatians.



"I'm proud to say that today, we have grown to more than 20 teams, and we're training more all the time. We could easily keep 15 more teams busy. The demand has been insatiable!" says Cooper Greenberg, the longtime chair of the Center for Innovative Medicine's International Advisory Board.

The canine/human teams find a receptive audience everywhere they go: among kids in the pediatric ICUs, Alzheimer's patients in psychiatry, and adult patients in urology, neurology, stroke, oncology, surgery, medicine, cardiology and even several ICUs. "We go room to room, bed to bed, all over the Children's Center and The Johns Hopkins Hospital. We also visit at Kennedy Krieger, and we've started teams at Johns Hopkins Bayview Medical Center," says Cooper Greenberg.

"Dogs have a unique way of helping people get through a tough day or a tough moment and bringing them back to themselves."

Stephanie Cooper Greenberg, chair of the Center for Innovative Medicine's International Advisory Board

She and her team members are inspired by research showing that visits from pets can relieve some of the stress, pain and anxiety related to illness and hospital stays. "When you've been doing this as long as I have, you just know that it works," says Cooper Greenberg. "We distract patients from their day-to-day medical environment, and they are no longer a patient. By having conversations about our dogs and the dogs they have at home, it brings them back to themselves and a world that's waiting for them at home."

More recently, in keeping with Johns Hopkins Medicine's "Joy in Medicine" initiative, which is aimed at mitigating burnout, stress and anxiety among Johns Hopkins clinicians and staff members, Cooper Greenberg is bringing the dog therapy program to medical residents. "We've been asked to visit residents in a wide variety of programs, including residents, fellows and staff in pediatrics and ICUs," she says. "Our teams go into the break rooms, and everyone can giggle and have fun. It's a true stress reliever."

The screening and training process for those who want to join the program at Johns Hopkins is rigorous and stretches over six to nine months. More than half of those currently serving, like Efron (who is a project administrator with the Center for AIDS Research), are Johns Hopkins staff members.

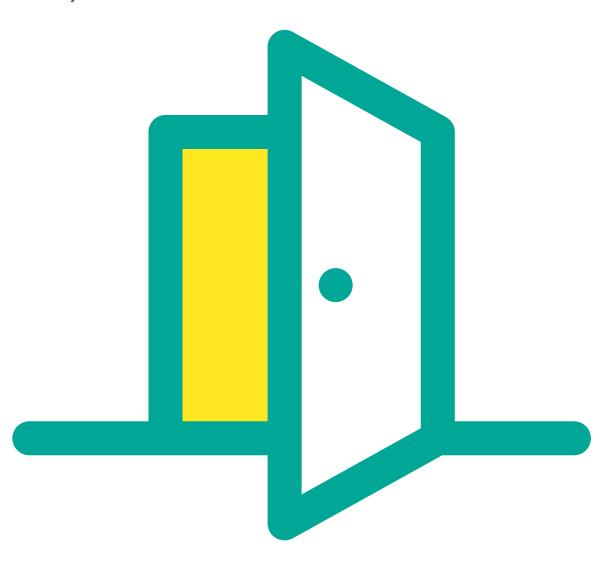
"We will take dogs of any size, age or breed, but the handler must first be registered with one of two pet therapy programs – Pet Partners or National Capital Therapy Dogs – and once we've screened them, we run them through an in-house training program and then observe and evaluate them to match each team with the right unit," explains Cooper Greenberg. A young dog, for example, might be too excitable to serve on a children's wing; instead, a calmer and steadier older canine (such as Grendel the Mastiff) would be a better fit. "We take a lot of time to make sure these are the right dogs for our medical units," she says. "It can be very exhausting to go room to room, over several hours, and that's not always a good fit."

Some canines who aren't judged a good match for hospital visits instead find a niche as a "reading dog." Through a program Cooper Greenberg first launched at a public library that is now being rolled out at the Kennedy Krieger Institute, reading dogs snuggle up with kids as they work on their reading skills. Some children who might be shy, or less than enthusiastic about reading aloud to an adult, find a welcome partner in a canine reading buddy, she notes.

Whether they are helping with young readers or visiting someone sick in the hospital, she says, "Dogs have a unique way of helping people get through a tough day or a tough moment and bringing them back to themselves. It's been the singular joy of my life to be a part of this, and I'm proud that this program resonates so well with the mission of the Center for Innovative Medicine and its efforts to promote medicine as a public trust."

Hope in the Face of Addiction

East Baltimore resident Monaye Gethers started using heroin in her late teens and discovered she was HIV-positive at 27. Two years later, she quit using – not just heroin, but alcohol, marijuana and any other substance that might cross her path. She went back to school, bought a house and car, and launched a career in substance use counseling – but for all she'd been through, she'd never had a doctor she trusted.



"All the doctors I'd met knew nothing about an African American woman in recovery with HIV," she recalls today. "They didn't even want to touch you, and everything that was wrong with you – even if you came in with a backache – had to be the HIV. Or, when I was using, it was the drugs."

Then a friend recommended she see a doctor at Johns Hopkins who had started a clinic that focused on providing primary care to people with HIV and substance use disorders. That doctor's name was Michael Fingerhood.

"We just hit it off," recalls Gethers. "He wanted to know everything about me – we sat in his office and talked for 45 minutes – before he even put a stethoscope to my chest. And then he examined me, and I showed him a rash and said it was probably the HIV, and he said, 'No, that's just topical dermatitis.' When I came back for a follow-up to talk about my bloodwork, he said I was in great health."

"Addiction certainly doesn't define the people who come to our practice. But it does need to inform the care we provide them."

Michael Fingerhood

Gethers is just one of thousands of patients whose lives have been transformed by Fingerhood and the Comprehensive Care Practice that he launched at Johns Hopkins Bayview Medical Center back in 1994. Established at a time when many Baltimoreans struggling with addiction had few options for health care, the practice, which receives some funding from the Center for Innovative Medicine (CIM), has provided judgment-free support to people fighting dependence on drugs or alcohol for the past 25 years.

CONTINUED ON PAGE 16

Celebrating 25 Years of the Comprehensive Care Practice

"In the clear, cold light of our current challenges, the CCP seems like a rather obvious and necessary program. However, when Dr. Fingerhood initiated the CCP 25 years ago, his prescience was astounding. His vision has saved the lives of countless people during the past quarter-century, given hope to many more and established Johns Hopkins as a leader in fighting one of the most tragic epidemics of our age: opiate addiction."

Mark Anderson, director, Department of Medicine, Johns Hopkins University School of Medicine

"CCP does extraordinary things for patients, but it is also a fertile training ground. When I think about the incredible impact it has had on me, I can only

begin to imagine its impact on every other resident who has trained here over the past 25 years and gone out into the world to revolutionize the way we practice medicine."

Jarratt Pytell, first fellow in addiction medicine at Johns Hopkins

"CCP is one of a kind – and that's the problem.

Providers, case managers, community health
workers and others talk about how they wish
there were more places like CCP, where their
patients could get truly robust primary care and
have a partner in managing their health. The real
mystery is: Why aren't all primary care practices
more like CCP? And, since we know CCP is helpful
for patients and reduces costs, why aren't we
replicating it everywhere we can?"

Anne Langley, senior director of health planning and community engagement, Johns Hopkins Medicine

"Too often, the stigma associated with addiction serves as a barrier to treatment for those who need it most. Dr. Fingerhood and his colleagues at the Comprehensive Care Practice understand this, and they see combating stigma to be an important part of their work. To do this, they are regularly out in the community, speaking at churches and with other community groups about the importance of viewing addiction as a medical condition for which there are effective treatments."

Dan Hale, special adviser to the president, Johns Hopkins Bayview Medical Center ON THE FRONTIERS OF RESEARCH

Aging and an 'Evolutionary Trade-Off'

Mark Anderson, director of the Department of Medicine and physician-in-chief of The Johns Hopkins Hospital, conducts his research in a state-of-the-art lab, using cutting-edge tools, like genetically engineered CRISPR mouse models. But in explaining the hows and whys of his bench science, which holds the potential for tantalizing new insights into the mechanisms of how we age, he goes back to a much, much simpler time: 1 billion years ago.

"We can only understand the genetics of disease in the context of evolution," says the physician/ scientist, who was elected to the National Academy of Medicine in 2017.

This was a period when invertebrates alone ruled the Earth – floating in the water and clinging to rocks. Scientists have shown that even back then, a protein known as CaMKII (Ca2+/calmodulin dependent kinase II) existed in living matter.

Fast forward half a billion years, when vertebrates made their debut: CaMKII assumed a more starring role, Anderson says, noting, "Animals evolved to have a head and a gut and a spine. They developed a rich skeletal system, and we know that skeletal muscle, heart muscle and brain tissue all have lots of the CaMKII enzyme." Scientists assumed that the enzyme played a key role in the "fight or flight" response of evolving vertebrates. "Animals weren't stuck to a rock anymore, and they had to move fast to catch prey or get out of the way of a predator," says Anderson.

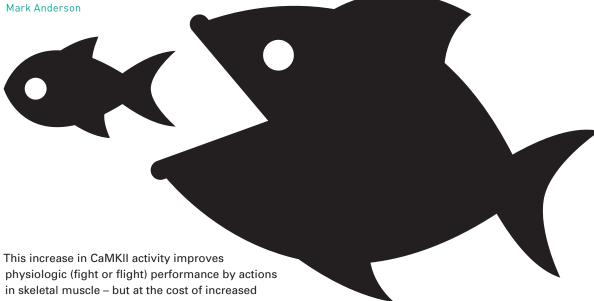
But what kind of role - and why?

Crucially, it was at this point in evolutionary history that a pair of amino acids known as methionines first arrived on the scene, Anderson explains. "And they have been conserved throughout speciation ever since, without a blip. Somehow, evolution decided these amino acids were to be cherished – that they played a very important role."

Anderson and his colleagues spent more than five arduous years in the lab in a project led by Qinchuan Wang, a molecular biologist, and Gabriel Bever, an evolutionary biologist, teasing out the intertwined roles of methionines and CaMKII, using fruit fly models and genetically engineered mice. Ultimately, Anderson and his team showed something compelling: The methionines are modified during increased oxidative stress and lead to CaMKII activation.

"Evolution equipped animals to be a little faster and better at getting away from predators, but the cost is that when they get older, they become susceptible to diseases linked to too much oxidation." "It's an evolutionary trade-off," says Anderson.
"Evolution equipped animals to be a little faster and better at getting away from predators, but the cost is that when they get older, they become susceptible to diseases linked to too much oxidation."

Which brings us to how Anderson's ongoing research on CaMKII could provide important clues to healthier aging. "It's not just diseases where oxidant stress is a culprit," he says. "Oxidation almost certainly plays a role in accelerated aging.



physiologic (fight or flight) performance by actions in skeletal muscle – but at the cost of increased oxidative damage to the cardiovascular system and promotion of other common diseases, notes Anderson, whose own research has focused on the role that CaMKII plays in heart failure and cardiac arrhythmias, a cause of sudden cardiac death.

In genetically engineered mice in which methionine is "knocked out," Anderson explains, the CaMKII enzyme is normal – except that it can't be activated by oxidation. The result: The knockout mice are more resistant to disease. But the flip side is that they can't run as fast or as far; they are not physically robust.

"So it's reasonable to think that these oxidation sites that we've identified are markers of the aging process," he says. "Ultimately, our hope is that they can provide us with insights into how oxidant stress contributes to the diseases of aging."

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MEDICINE AS A PUBLIC TRUST

Thinking Big

William R. Brody was well into his tenure as president of The Johns Hopkins University (1996–2009) when David Hellmann approached him in the mid 2000s with a growing concern – and an idea for addressing it.

A physician widely admired for his patient-centered approach to providing care, Hellmann was worried by the path that medicine was taking. He proposed an initiative that would promote medicine as a public trust – one that would "be compelling and make a positive difference in the lives of patients and physicians," Brody recalls.

But how best to make it a reality, Hellmann wondered?

"I encouraged him to think big," says Brody, who served for seven years as the Martin Donner Professor and director of the Department of Radiology at Johns Hopkins before assuming the university presidency. "I remember saying, 'You have so many grateful patients who appreciate

the time you spend listening to their stories and providing exceptional care.

I'm sure you will be able to attract a lot of support for this mission.'"

Hellmann took that advice, and he did "think big." In 2005, the Center for Innovative Medicine was born at Johns Hopkins Bayview Medical Center, with Hellmann as director. "When David started the Center for Innovative Medicine, I don't think he could have known just how much the world of medicine would wind up needing it," says Brody, who left Johns Hopkins in 2009 to assume the presidency of the Salk Institute for Biological Studies, a leading scientific research institute in La Jolla, California. During his six-year tenure there, Brody led the institute's first fundraising campaign, the highly successful \$300 million Campaign for Salk, which put the institute on solid footing and enabled the recruitment of a number of highly sought-after faculty members.

During his time at the Salk Institute, and in the years since, Brody says it's been "fun to watch" the Center for Innovative Medicine serve as an incubator for so many patient-centered initiatives, including the Miller Coulson Academy for Clinical Excellence, the Aliki Initiative, the online learning community CLOSLER and much more.

Though officially retired, Brody has maintained a very active presence in the worlds of higher education and medicine. He currently serves on the boards of Stanford Health Care and the W.M. Keck Foundation in Los Angeles, a charitable foundation that supports scientific, engineering and medical research. After so many years spent serving as chief fundraiser, first for Johns Hopkins and then Salk, he says, chuckling, "It's great to be on the side of giving money away."

A talented pianist (he performed "Rhapsody in Blue" with the San Diego Symphony for a Salk Institute fundraiser), Brody also serves now as a trustee of the Curtis Institute of Music in Philadelphia. "I wanted to get involved in something I was passionate about that wasn't health care related," he says, "and the experience has been just amazing."

"What David created with the Center for Innovative Medicine is actually much more relevant today than when it launched. He and others at CIM are working tirelessly to bring the 'care' back to health care."

William R. Brody, former president of The Johns Hopkins University

After years of living on the West Coast, Brody recently remarried and relocated back to Baltimore to be closer to the extended family of his wife, Hyunah Yu. The couple now makes their home just a few blocks away from the Homewood campus.

From that vantage point, it's easy for him to stay tuned in to the Center for Innovative Medicine's ever-widening impact. "What David created with the Center for Innovative Medicine is actually much more relevant today than when it launched," says Brody. "He and others at CIM are working tirelessly to bring the 'care' back to health care."

PRECISION MEDICINE

'An Exciting Ride' in High-Value Care

When radiologist Pamela
Johnson first began leading the charge to advance "high-value" medical care, the concept was barely on the radar of many clinicians. Today, some four years later, she finds herself as a national leader on this issue as hospitals and health care systems have embraced the movement with urgency.

"It's been an exciting ride," says Johnson, who is co-chair of the Johns Hopkins Health System High Value Care Committee, and was recently named a Center for Innovative Medicine (CIM) Stanley Levenson Scholar.

So what exactly *is* high-value care? Within the world of health care, value is defined as the ratio of quality over price, just as with any consumer product. If, for example, you can get a great car for a cheap price, you have a high-value car. The U.S. health care system has been critiqued for its low value. Though Americans spend twice as much on health care as some other advanced countries, the resulting quality (i.e., health outcomes) is not better – and sometimes is worse.

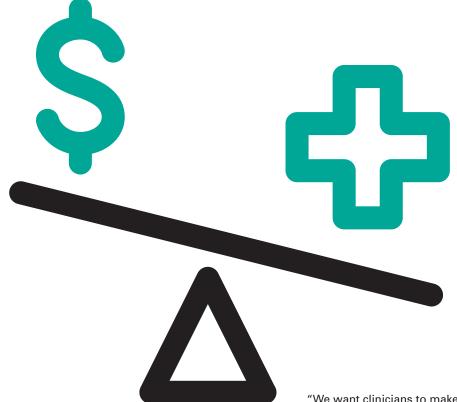
And it is patients who are paying the price, says Johnson. As she points out in a recent paper published in *Academic Medicine*, medical debt is the leading contributor to U.S. personal bankruptcy, and patients are choosing to avoid necessary care because of its cost. "[This] is a call to action for the profession to transition to a high-value model – one that delivers the highest health care quality and safety at the lowest personal and financial cost to patients," wrote Johnson.

In 2016, Johnson and Vice Dean for Education Roy Ziegelstein recognized the need to escalate the work nationally and believed that collaboration across medical centers could deliver large-scale improvements in value. With the assistance of Dean/CEO Paul Rothman, they established the High Value Practice Academic Alliance, an organization that now includes 100 academic partner institutions. In November, the alliance hosted its third national conference here in Baltimore, sponsored by the Johns Hopkins University School of Medicine.

Johnson points out that a leading cause of low-value care is unnecessary medical testing, including bloodwork, MRI scans and CT scans. From the beginning of her work in this area, she has championed the importance of engaging medical students and residents in the research and performance improvement necessary to ensure that potentially unnecessary tests can be safely reduced in practice. Toward that end, in 2015, she joined forces with Susan Peterson to create and co-direct the High Value Practice Alliance at Johns Hopkins.

Residency program directors from multiple specialties joined the committee to tackle problems that are largely multidisciplinary. "I'm a radiologist, but if I observe areas where patients are not benefiting from imaging and want to reduce utilization, I can't do it myself," says Johnson. "It has to be a team effort."

The work quickly advanced beyond the graduate medical education arena, she says, owing to the creation of the Johns Hopkins Health System High-Value Care Committee by Redonda Miller and Renee Demski in 2016, followed in 2018 by the appointment of a high-value faculty lead in each department at The Johns Hopkins Hospital. Johnson has subsequently observed systemwide growth of these types of initiatives.



"[This] is a call to action for the profession to transition to a high-value model – one that delivers the highest health care quality and safety at the lowest personal and financial cost to patients."

Pamela Johnson

She points to Agile MD as one example of an important tool that started as the brainchild of Johns Hopkins Hospital Emergency Department providers and will soon be improving care across the Johns Hopkins Health System. An evidence-based decision support tool, Agile MD works within the Epic electronic medical record system to place relevant best-practice guidance and information within easy reach of clinicians as they make decisions about testing and treatment. The content is created by Johns Hopkins physicians, advanced practice providers, nurses, pharmacists and residents, who synthesize the literature with their own clinical experience.

"We want clinicians to make decisions according to the evidence in a way that is at the same time tailored to the patient and their clinical acumen," says Johnson. "We don't want to completely standardize care, but we do want to reduce variability that does not improve outcomes, especially when it involves overuse or underuse of tests and treatments."

Johnson's tireless leadership in high-value care aligns beautifully with the mission of the Center for Innovative Medicine, says Hellmann. "An important part of pursuing medicine as a public trust involves being good stewards of society's resources," he says. "The CIM is very proud of Dr. Pam Johnson's efforts to get all of us higher quality for less cost."

For her part, Johnson says, "Being named the CIM Levenson Scholar is the greatest honor of my medical career." The funding, she says, "will enable me to escalate our effectiveness and deliver measurable improvements in health care quality and affordability at Johns Hopkins and across the country. Of equal importance, by demonstrating accountability for the improvements that we need to make within health systems, we will safeguard patients' trust in physicians and medical institutions."

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TOWARD HEALTHY AGING

Q&A with Charlie Scheeler

A onetime federal prosecutor in the U.S. Attorney's Office for the District of Maryland, Charlie Scheeler went on to a highly successful 37-year career as a defense attorney with DLA Piper. Now a retired partner with the law firm, Scheeler remains very active in the community, serving as chair of the board of Rosedale Federal Savings & Loan Association, and on the boards of The Johns Hopkins University and Johns Hopkins Medicine. In those roles, and as chair of the board of Johns Hopkins Bayview Medical Center, Scheeler has come to know well the work of David Hellmann and the Center for Innovative Medicine (CIM), and to champion CIM's efforts to promote healthy aging. In the conversation that follows. Scheeler tells why Johns Hopkins is "the perfect fit" for an Institute for a Long and Healthy Life.

Q. Your ties to the Baltimore community and to Johns Hopkins run deep, don't they?

A. Yes. I'm fairly certain my dad, Charles Scheeler, was born at what today is Johns Hopkins Bayview Medical Center. His family moved from Butchers Hill to Rosedale after the 1904 Baltimore fire. My dad's grandfather formed the Rosedale Permanent Building and Loan Association with \$71 in assets in 1908 to pool their money and help others buy homes. My dad followed his own father at what became Rosedale Federal Savings & Loan Association. He sat on its board for 64 years and spent 26 years as chair. When he joined the board in 1952, Rosedale had about \$3.8 million in assets. When he stepped down, it had \$800 million.

"As native Baltimoreans, we saw firsthand how incredibly important Johns Hopkins is to the greater Baltimore community."

My own ties to Johns Hopkins go back more than 20 years, when our youngest daughter, who was 4 at the time, was struggling with obsessive-compulsive disorder. My wife, Mary Ellen, and I came to Johns Hopkins to search for solutions for Cecelia. Once we found those solutions, we stayed closely connected with Johns Hopkins and got involved as volunteers. As native Baltimoreans, we saw firsthand how incredibly important Johns Hopkins is to the greater Baltimore community.

Q. In remarks you made in August at CIM's annual retreat, you talked about the need for the U.S. to confront the health issues of our rapidly graying population. Why is that so critical?

A. Taking action is vitally important, not just to address the physical health of our country's seniors but also to address the financial health of our nation. As a country, we are currently spending more than \$3 trillion on health care, and \$1 trillion of that is dedicated to providing health care for those over age 65. And our nation is only getting older. By 2020, for example, one-quarter of residents in Baltimore County will be over 65. Each year, we are seeing a climbing curve in health care costs for the aged as a percentage of the gross domestic product. We must figure out a way to care for our elderly population in a less expensive manner.

Fortunately, that lines up with what elderly people want. By providing an entire ecosystem that allows for more independence in our later years, for healthier and more enriched lives, we can also save money on health care. The goals are completely congruent.

As a society, we need to pursue this. We owe it to our parents to provide as dignified an old age as possible. Economically, it's imperative that we address this so we don't starve our children of future resources.

"We owe it to our parents to provide as dignified an old age as possible. Economically, it's imperative that we address this so we don't starve our children of future resources."

Q. That brings us to plans within the Center for Innovative Medicine to establish an Institute for a Long and Healthy Life...

A. Yes! So, if we agree that we need to take action, then the question becomes, where? And to that, I respond: What better place to establish a national institute on healthy aging than at Johns Hopkins – a place that consistently ranks No. 1 in geriatrics, a place that has such strong programs in psychiatry, neurology, rheumatology. The Johns Hopkins Hospital and Johns Hopkins Bayview have long housed centers of excellence for all of the specialties that collectively support healthy aging. We're a perfect fit.

"What better place to establish a national institute on healthy aging than at Johns Hopkins – a place that consistently ranks No. 1 in geriatrics, a place that has such strong programs in psychiatry, neurology, rheumatology."

I think that creating an Institute for a Long and Healthy Life here could be a real game changer. Here in Baltimore, we can develop and road-test models for innovative programs – entirely new ways for individuals and for groups of people to have healthier and more productive later lives – and then export these models to the rest of the world, which matches perfectly with Johns Hopkins' mission. Every day that I get older, the more excited I become about the prospect for this institute!

Heroin, fentanyl and other opioids are the most common substances Fingerhood and his team see, but the practice also treats patients with alcohol, cocaine and other substance use problems. More than 6,000 people, many of whom have been sober or off drugs for years, rely on the practice for routine medical care.

"Addiction certainly doesn't define the people who come to our practice. But it does need to inform the care we provide them," says Fingerhood.

Fingerhood, a member of the Miller Coulson Academy of Clinical Excellence, proudly declares he doesn't own a white physician's coat. "For me, they just kind of create a barrier between me and patients," he says. "Not my style."

It's that kind of accessible, down-to-earth approach that has earned Fingerhood the respect of his colleagues (see sidebar on p. 7) and the gratitude and loyalty of his patients.

"My sobriety is the first thing Dr. Fingerhood asks about when I see him," says a longtime patient who battles alcoholism. "He'll ask if I'm still going to my Alcoholics Anonymous meetings and talking to my sponsor. I haven't used in almost 20 years, but it's still something I have to pay attention to. Going to Dr. Fingerhood helps keep me grounded."

Another patient tells of relapsing after many years of sobriety, when two close family members died. She subsequently overdosed on heroin seven times between June and August 2017. Several of those overdoses were nearly fatal. "Dr. Fingerhood helped me through the most difficult time in my life," she says. "He just never gives up on me."

Earlier this year, Fingerhood was tapped by Johns Hopkins University President Ronald Daniels to lead a universitywide effort - involving researchers and clinicians at the schools of medicine, nursing and public health – to reduce opioid addiction in Baltimore.

Fingerhood has turned to a team of five community leaders in East Baltimore to help guide the ambitious universitywide project. Six months in, he's encouraged by the progress. "A lot of recent research says that access to buprenorphine is important when communities are fighting against opioids," he says, referring to a prescription medication used to treat addiction. The Substance Abuse and Mental Health Services Administration requires providers to obtain special certification to prescribe buprenorphine. As part of the plan he outlined with Daniels, Fingerhood has led an effort to get as many clinicians as possible to obtain that certification.

Given the scope of opioid addiction we face today, it might seem like Fingerhood and the Comprehensive Care Practice face a daunting, uphill battle. But Fingerhood emphasizes that there is real reason

"At the Comprehensive Care Practice, our six-month retention rate for people with opioid addiction who we treat with buprenorphine is 80 percent."

Michael Fingerhood

"At the Comprehensive Care Practice, our six-month retention rate for people with opioid addiction who we treat with buprenorphine is 80 percent," he says. "By way of comparison, with a typical smoking cessation program, we'd usually see about a 15 percent retention rate.

"So you can see that 80 percent is an incredible rate - and a real cause for celebration that we are able to help so many of the patients who come to us."

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about the CCP as it celebrates its 25th anniversary at Johns Hopkins.

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