Dear Friends,

As MedStar Health leads the important transformation of health care in Maryland and the Washington, D.C., region, we are thinking differently about everything we do. In an ever-changing healthcare environment, our processes and approaches are evolving in order to best meet the needs of our patients, our associates and the communities we serve. Our future depends on our ability to evolve a business model constructed long ago and transform it to meet the expectations and available resources of tomorrow. And while all of this change requires us to be innovative, flexible and nimble, we must also remain focused and committed to our foundational mission-driven work of providing the very highest quality, safest care to our patients.

A great deal of strength is derived from being the largest, most accessible not-for-profit healthcare system in the region. We must embrace and harness this strength through the hands, hearts and minds of our 30,000 associates, physicians and nurses as we work to build a new care delivery model. With this great strength also comes great responsibility: a responsibility to our fellow healthcare providers, our patients and the communities we serve. We take this responsibility very seriously.

The theme of our Fiscal Year 2014 Annual Report—Advancing Health—focuses on a key component of our vision to be the trusted leader caring for people and advancing health. In this Annual Report, you will see the many ways in which MedStar is changing lives, and is firmly committed to the evaluation of new and innovative ways to advance the health of our region.

We made bold and strategic moves this year in our quest to find new, better and faster responses to the challenges facing not only hospitals, but the entire healthcare system in the United States. We are also tackling transparency and addressing the manner in which health systems handle errors in care, learn from mistakes and engage former patients to prevent future occurrences. We are slowly transforming the formerly perceived closed-door realm of medicine into an even more open and transparent culture, and we have engaged patient advocates to help us lead this change.

On the frontline of change is our new multispecialty healthcare center, which is highlighted in this Annual Report. The opening of this center embodies health care’s continued need to expand into the community, and yet to do so as part of a seamlessly connected continuum of care that is centered on the needs of our patients.

Through our medical education and clinical partnership with Georgetown University, we continue to bring the best and brightest together to collaborate on research efforts certain to change the future of medicine, expediting the process for translational research to reach the bedside. Thousands of MedStar patients from across the region joined one of our many studies on promising new drugs, emerging healthcare technologies or novel approaches to care. Each patient contributed another piece to the puzzle, leading our physician scientists closer to understanding and managing a variety of diseases and other serious conditions.

The highlights in this Annual Report are examples of the many clinicians and associates across our healthcare system who are dedicated to changing the path of health care, serving as examples of the expertise, leadership and innovative thinking that are required to support our long-term strategy—MedStar 2020. With the full support of our system-wide governance, medical staff and management leaders, we are building a truly connected organization with a constant focus on quality and safety, service and access. We are truly advancing health.

In support of our patient-focused mission, our philanthropic partnerships and investments are critically important in our ability to advance, allowing us to make significant differences in the lives of so many. We greatly appreciate the trust placed in our organization through your generous philanthropic support. We know that our MedStar 2020 strategy continues to guide us well, and that we are leading the region in many important ways. However, we also know that while strategy and operational excellence matter, they are meaningless if not grounded in the needs of the communities we serve. With the support of our Board members, volunteers and donors, we never lose sight of our top priority—our patients and their families.

It is our hope that the transformation we are leading at MedStar Health will shine light on potential solutions for health care in our country and, most especially, for the communities across our region. We could not do this important work without your support, guidance and friendship. Thank you.

Kenneth A. Samet, FACHE
President and CEO

William R. Roberts
Chairman of the Board of Directors
From Concept to Completion

To transform great ideas into successful products, MI2’s MedStar Inventor Services and the Global Healthcare Innovations Alliance navigate the daunting process of market analysis, intellectual property protection, product development, licensing, and more, in partnership with MedStar associates.

With 1776, our search for workable solutions now reaches a new level. While the global incubator and seed fund identifies the most promising start-ups in health care and related fields—and helps engineer their success—MedStar also benefits.

“We’re looking to bring fresh ideas and approaches from the outside into the system,” says Jeff Collins, MI2’s administrative director and director of External Alliances.

As 1776’s sole healthcare partner, MedStar is an adviser and sounding board for the incubator’s new health-related companies, helping refine prototypes into practical, real-life applications. Covering the full spectrum of patient demographics, clinical specialties and care settings, the system is a microcosm of America’s healthcare industry and an ideal testbed for fledgling products.

Currently, the team is working with six start-ups on remote monitoring systems, informatics, telemedicine, and other digital health solutions that could radically change healthcare delivery. In exchange, MedStar gains first access to their approaches and technologies.

“By combining the tremendous creative and intellectual capital that exists at MedStar with 1776’s talented and driven entrepreneurs, big change can and will happen,” says Mark S. Smith, MD, director of MI2 and MedStar’s 1776 team leader.

Revolutionary Ideas

The odyssey began in 2009 with the launch of the MedStar Institute for Innovation (MI2), followed by a unique relationship with Cleveland Clinic in 2011. The result is the first-of-its-kind Global Healthcare Innovations Alliance designed to advance patient care through inter-institutional collaboration, technology development and commercialization.

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The InVent Diaphragm Assist Device (DAD)—brainchild of William Krimsky, MD, director of the Center for Interventional Pulmonology at MedStar Franklin Square Medical Center—is the latest beneficiary of their combined support. Basically an implantable ventilator, the novel device could free patients with pulmonary failure to live independently, unleashed from stationary devices. Through a licensing agreement with InnoVital Systems, the alliance’s first, Dr. Krimsky’s concept is now moving closer to reality.

“If DAD reaches the market,” he says of the simple and elegant solution, “there is potential to revolutionize care for patients with advanced lung and neuromuscular disease.”
Sharon Allen—a 40-year-old wife and mother of five, including a newborn—lay in a suburban Virginia emergency room, fighting for her life. As staff worked to save her, one by one, Sharon’s coronary arterial walls disintegrated in front of their very eyes.

Doctors did what they could to stem the deadly progression and prepare Sharon for immediate transfer to MedStar Heart & Vascular Institute at MedStar Washington Hospital Center—the region’s nationally recognized leader in advanced cardiac care and Sharon’s best hope. There, cardiac surgeon Jennifer Ellis, MD, was ready and waiting.

“Sharon’s condition, spontaneous cardiac arterial dissection, was extremely rare, severe and potentially catastrophic,” she says. “Basically oxygen-starved, some of her heart tissue was already suffering, putting her at risk for a massive heart attack.”

While Sharon was still airborne, Dr. Ellis plotted out her approach: Get her to the OR, perform open-heart surgery and then hook her up to the Hospital Center’s ECMO, one of a very few in the area. Only available in top-tier heart centers, the “extracorporeal membrane oxygenation” system can take over both cardiac and respiratory functions, giving damaged organs precious weeks to rest, recuperate and regain strength to resume their duties.

After undergoing a triple bypass procedure, Sharon’s heart needed ECMO’s extra help for five days. Less than a week later, she was discharged to a rehabilitation center, then home.

Such sophisticated technology, techniques and successful outcomes for even the most critical conditions contribute to MedStar Washington Hospital Center’s consistent ranking among U.S. News & World Report’s top 50 cardiac programs—the only heart program in the Washington region to earn this national recognition. It is also one of the nation’s highest volume centers and a hotbed of innovation in cardiac care.

“The newest, most cutting-edge procedures and devices—what you read about as ‘coming soon’—are already available at the MedStar Heart & Vascular Institute,” says Sharon’s husband, Dorian. “It’s a testament to their expertise and leadership.”

So, too, is Sharon’s recovery. “The girls and I could have lost her,” Dorian says. “Dr. Ellis is our hero.”

Now recovered, Sharon can enjoy more quality time with her family—keeping up with her five daughters.
BRAINSTORM

What mental magic empowers a 3-year-old to absorb two languages at once, while adults struggle to become bilingual? After a stroke, what secret pathways lead a newborn’s brain back to normalcy but seem sealed off to grownups with the same damage?

Such questions inspire the creative minds at the interdisciplinary Center for Brain Plasticity and Recovery, a joint enterprise between MedStar Health and our medical education and clinical partner, Georgetown University. Here, neuroscience researchers are examining plasticity—the young brain’s ability to successfully reassign tasks to areas unaccustomed to the responsibility—in hopes of unraveling the mechanisms behind the process. Armed with the answers, they can then pursue their ultimate goal: learning how to coax the adult brain to once again respond like a child.

“It’s the most exciting research of my career,” says Alexander Dromerick, MD, the center’s co-director and a specialist in stroke rehabilitation and brain trauma recovery techniques at MedStar National Rehabilitation Hospital. “Together, what we’re doing has the potential to change people’s lives after stroke, traumatic brain injury, and maybe even Alzheimer’s and other neurologic disorders.”

With 800,000 new cases each year, stroke is a major focus and the subject of the center’s first clinical trial, the Critical Periods After Stroke Study. Jointly designed by MedStar NRH and Georgetown University, and led by Dr. Dromerick, the protocol aims to determine if there are specific windows of opportunity when additional therapy is particularly effective. If outcomes appear positive, the study will be replicated in a multicenter trial.

In a related project, a university-based team is working to identify the biomarkers associated with a positive response to therapy. Results could lead to a blood test to indicate the most productive time to initiate rehabilitation or, better yet, a drug to boost or prolong the brain’s receptivity to relearn key tasks. Other current work centers on transcranial magnetic stimulation to activate precise areas within the brain and cellular/molecular studies of how new synapses—bridges between brain cells—are formed, among others.

With the aging of the baby boomers, the timing could not be better. “Everything we’re doing right now revolves around discovering how to stimulate the brain to recover from damage, so we can preserve and restore neurologic function,” says the university’s Elissa Newport, PhD, an expert in language acquisition and the center’s co-director. “With specialists in neuroscience, neurology and rehabilitation medicine—all in one area, working together—we have a remarkable opportunity to make a difference.”

MEDISTAR HEALTH AND GEORGETOWN UNIVERSITY: PARTNERS IN KNOWLEDGE AND COMPASSION

Advancing health through medical education, research and innovation is core to MedStar Health’s vision and strategy. Serving as MedStar Health’s medical education and clinical partner, Georgetown University enhances our “advancing health” portfolio through collaborations in teaching, scholarship and research.

Georgetown University medical students rotate through MedStar’s hospitals for their clinical education and training. In addition, approximately 25 percent of the university’s graduating class is matched into MedStar residencies and fellowships. Most of MedStar’s teaching Faculty hold academic appointments at Georgetown University, realizing the meaningful collaborations in teaching, research and academic service.

In addition, Georgetown University Medical Center and MedStar Health Research Institute have increased collaborative research activities through their NIH-funded Clinical Translational Science Award (CTSA), robust joint scientific advisory board and joint intramural funding program.

GME Profile

Number of residents and fellows 1,070
Number of accredited programs 74
Number of specialties 54
Number of students rotating annually 2,000
Number of rotating residents and fellows annually 700
Number of teaching hospitals 7

Both MedStar Health and Georgetown University have devoted significant resources to the Center for Brain Plasticity and Recovery, which include the university’s functional MRI—a vital tool in understanding the mysteries of the mind, shown here with Elissa Newport, PhD, and Alexander Dromerick, MD.

ADVANCING HEALTH
Intestinal transplants are few and far between, with only about 100 or so procedures performed annually, mostly on children and young adults. Averaging about 20 each year, MedStar Georgetown Transplant Institute is one of the busiest and most experienced intestinal transplant centers nationwide, with the deep infrastructure and range of subspecialists required to tackle the rare and complex operation.

Debra, however, needed not one new organ, but five, complicating her case. Confident in Dr. Matsumoto and the transplant institute—and fearful of leaving her teenage son parentless if she didn’t get off TPN—Debra joined the organ waiting list. Nearly 10 months later, she got the call. Dr. Matsumoto, two other surgeons, residents, and students flew to Florida for the first part of their mission: to carefully retrieve the donated organs. Meanwhile Debra picked up her yarn, knitting needles and pre-packed bag, and headed off to the transplant institute for the surgery of her life.

On July 11, 2013—after 17 hours on the operating table—Debra had a new pancreas, liver, small bowel, stomach, and duodenum. “My transplant team was simply awesome—some of the most compassionate, caring professionals I’ve ever encountered,” she says. “Their support and encouragement helped me persevere, recover and, for the first time in two years, feel good again.”

One more surgery, a kidney transplant, awaits her, but Debra’s not terribly concerned. “It’s all good: It’s the MedStar Georgetown Transplant Institute.”

Debra’s life-threatening drama began with a preventive double mastectomy and hysterectomy to avoid the cancers that claimed her mother and aunt. But the 53-year-old developed a dangerous blood clot in her abdomen, eventually causing the loss of most of her intestines. Six months later, she was home, tethered indefinitely to the 14-hour intravenous feeding regimen called total parenteral nutrition (TPN), and facing an uncertain destiny.

Then she found MedStar Health.

“While short periods of TPN can be invaluable, the therapy exacts a toll on the body when used long term,” says Cal Matsumoto, MD, Debra’s principal surgeon with the MedStar Georgetown Transplant Institute.

“As a result of TPN, Debra’s other digestive organs were starting to fail. Basically, she needed an entirely new gastrointestinal tract—an extremely difficult procedure for patients in their 20s, let alone someone middle-aged.”

Debra Long celebrated her birthday twice this year: officially on Feb. 28, and again on July 11—the first anniversary of her new life as a multi-organ recipient, thanks to MedStar Georgetown Transplant Institute. It’s a tradition she shares with others who feel dramatically reborn when healthy organs replace the failing.

After more than a year in hospitals and rehabilitation, Debra Long finally felt well enough to rejoin her church’s knitting and crocheting group this past July.

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Debra, however, needed not one new organ, but five, complicating her case.

Confident in Dr. Matsumoto and the transplant institute—and fearful of leaving her teenage son parentless if she didn’t get off TPN—Debra joined the organ waiting list. Nearly 10 months later, she got the call. Dr. Matsumoto, two other surgeons, residents, and students flew to Florida for the first part of their mission: to carefully retrieve the donated organs. Meanwhile Debra picked up her yarn, knitting needles and pre-packed bag, and headed off to the transplant institute for the surgery of her life.

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That procedure—scapulothoracic fusion—can restore and improve upper extremity function for select patients, like Lauren, with facioscapulohumeral muscular dystrophy (FSHD).

“People with FSHD experience progressive weakening of skeletal muscles,” says Leigh Ann Curl, MD, of MedStar Harbor Hospital—one of a few orthopaedic surgeons on the east coast who perform this highly-specialized operation. “By melding the shoulder blade to the underlying adjacent ribs, patients with FSHD gain more mobility and have a better quality of life.”

Like others who have trekked to Baltimore from as far away as New Jersey and Florida, Lauren and her parents thought nothing of driving six hours or more each way, after learning of the procedure and Dr. Curl’s reputation.

“As soon as we met her, we knew we had come to the right place,” says Lauren’s mother, Rachel, a physical therapist. “The entire experience was incredible. It means a great deal when your child is taken care of so well.”

Care for children and adolescents with musculoskeletal conditions recently received another boost with the arrival of Andrew Abramowitz, MD, at MedStar Franklin Square Medical Center. One of a very few pediatric orthopaedic surgeons in the region, Dr. Abramowitz has a special interest in children with cerebral palsy—which represent some of his most complex cases. In the space of two weeks this spring, for example, he spent two 12-hour days in the operating room, basically rebuilding an adolescent boy’s lower body, from his pelvis and hips down to his ankles and feet, so he may one day walk again.

“Children are not just small adults,” says the fellowship-trained expert who also specializes in limb-lengthening. “They’re still actively growing, so we have to consider the effect of the current procedure on future development.”

That caliber of services and personalized care has earned MedStar Orthopaedics a national reputation for excellence. With fellowship-trained specialists in nearly all musculoskeletal conditions—and a major sports medicine program—it provides team physicians to the Baltimore Ravens, Washington Capitals, Washington Nationals, and Washington Wizards, as well as coverage for many collegiate and youth programs throughout the area.

The addition of pediatric orthopaedics to the roster is MedStar’s latest step to fulfill community needs.

“By helping young patients sit, stand and walk better,” Dr. Abramowitz says, “we restore both body and spirit.”
“No one goes into health care to harm patients,” says Kelly M. Smith, PhD, scientific director for Quality and Safety Research at MedStar Health. Yet unintentional harm happens—physically, financially, psychologically. The manner in which hospitals handle errors in care, learn from mistakes and engage former patients to prevent future occurrences is slowly changing the formerly closed-door realm of medicine into an open, transparent culture.

MedStar Health’s David Mayer, MD—a nationally recognized expert, educator and lecturer on patient safety and quality—discusses how patient advocates are helping change the healthcare environment, here and elsewhere.

With a decade of work in safety, quality and patient-centered care, MedStar began its formal evolution into a high reliability organization (HRO) in 2013. Perfected by the aviation and nuclear power industries, the HRO model helps high-risk, complex fields successfully avoid catastrophes. Now, the nation’s most enlightened and forward-thinking hospitals are adopting this approach.

“Seeking to become an HRO is an all-inclusive, top-to-bottom process,” says David Mayer, MD, vice president of Quality and Safety. “It’s the biggest, system-wide initiative we’ve tackled in memory, and it won’t be fully implemented for another three to five years.”

So far, Dr. Mayer and his team have introduced 2,200 executives, managers and others to the model’s essential leadership principles. At each of our 10 hospitals, hundreds of other HRO-prepared “champions” are walking frontline associates through the training necessary to achieve system-wide resilience and accountability, the hallmarks of HROs. Fewer than 25 percent of America’s hospitals have attempted the transition.

As part of HRO’s second phase, MedStar is leading 14 hospitals from three healthcare systems nationwide in a 24-month project for the Health Research and Educational Trust, funded by the Agency for Healthcare Research and Quality. Called CANDOR—short for Communication and Optimal Resolution—it involves developing and testing an educational toolkit to help hospitals respond to, defuse and quickly resolve potential patient harm situations.

“It takes significant institutional courage and commitment to follow this route, and MedStar has both,” says Dr. Smith, principal investigator for MedStar’s project. “With rollout scheduled to begin in early 2015 at eight of our hospitals, we are CANDOR’s largest site.”

Consumers engagement, another important piece in our HRO journey, continues through our Patient and Family Advisory Councils for Quality and Safety (PFACQS). These committees comprise patients, family members, hospital staff, and community residents, all interested in sharing their experiences and perspectives to improve patient care and satisfaction. First introduced at the system level in 2012, the concept is now up and running at five MedStar hospitals, with the remainder in varying stages of implementation.

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And within months, Miles returned to the active lifestyle he loves, thanks to his determination—and the equal determination of MedStar National Rehabilitation Hospital—to get him there.

"I had done a segment about prosthetic arms and rehab a few years ago," says Miles, who has covered science, technology and aerospace for such media giants as CNN and PBS. "So when I started looking at possible places for rehabilitation, Chicago, Baltimore and New York made the list."

But then a friend introduced him to MedStar NRH, and the deal was sealed.

Consistently ranked among America’s “Best Hospitals” for rehabilitation by U.S. News & World Report, MedStar NRH offers an innovative arm amputee program—a rare program for a rare problem. Part research, part rehab, it is the only comprehensive interdisciplinary clinic of its type in the mid-Atlantic region.

Together, a team of physicians, occupational therapists, prosthetists, and others are evaluating whether systematic training can teach patients to master their arm replacements, maximizing function and independence.

"Typically, patients receive an upper arm prosthetic, practice using it a few times in the maker's office and are sent on their way," explains Jessica Barth, MS, occupational therapist and researcher. "Out of frustration, many either abandon the device or develop awkward movements that can cause problems later."

In contrast, MedStar NRH specialists determine which activities patients would like to resume, then devise a plan to strengthen specific muscles, maintain flexibility and improve range of motion for the task at hand.

That "can-do" attitude appealed to Miles, who most wanted to ride in a 300-mile bike trip for cancer in memory of his sister.

Soon he was outfitted with a custom-designed arm expressly for biking—one of many devices MedStar NRH's specialists can craft for tumbling, kayaking, flying, and other high-performance athletics.

When a freak, on-location accident in the Philippines separated Miles O'Brien from his left arm, the 55-year-old broadcast journalist faced a tough decision: follow his feelings on their downward spiral or summon the strength to rise to a new, unknown challenge.

He chose the latter.

And on July 13, 2014—nearly five months to the day after losing his arm—Miles finished the entire 300-mile ride. He's also running again and hopes next to return to scuba diving.

"How to deal with this type of loss is a very personal decision," he says. "But the experts at MedStar will work to get you back to the activities that add meaning to your life. They are amazing."

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Neil and Emily Kishter are prime examples. "All contributions are important and valued," Neil says, "but a large gift helps get things done. Otherwise, it can take years for a worthwhile project to finally make it through budget approval."

So in 2013, the couple fulfilled a significant pledge toward improvements to the Infusion Center at MedStar Georgetown University Hospital’s Lombardi Comprehensive Cancer Center, a place Neil knows all too well. His first wife, Dana, fought a losing battle there with three different acute leukemias over a decade, spending countless hours in the outpatient facility.

Neil has remained deeply appreciative of the quality of care and compassion Dana received from Lombardi—the area’s only NCI-designated comprehensive cancer center and one of only 41 nationwide—and the special concern and expertise of Craig Kessler, MD, her hematologist/oncologist.

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Not long afterward, the 54-year-old philanthropist asked Dr. Kessler what he could do to help.

“I realized I couldn’t change Dana’s outcome,” Neil says, “but I could try to make things a little better for others.”

In the refurbished Infusion Center, each patient spends up to five hours a day receiving proven and promising therapies with the potential to change future cancer care. To comply with stringent research protocols, staff is specially trained in the intricacies of administering experimental drugs, including cancer cell-targeted antibodies and more standard chemotherapy-based treatment. Thanks to the Kishters, more comfortable surroundings, enhanced work stations, and a welcoming and healing environment now make life in the Infusion Center better and more efficient for patients and professionals alike.

“Whether it’s a bricks-and-mortar project or a specific research study that could lead to promising therapies,” says Dr. Kessler, “philanthropy provides so many opportunities to benefit patients, directly and indirectly.”

For Neil and Emily, the new Infusion Center was a rewarding venture, with an immediate return on investment.

“I firmly believe in giving during your lifetime, especially while you’re young,” he says. “I want to be around to see the results.”
The avid golfer, bagpiper and research scientist—with his wife and fellow scientist, Liz—now has one more distinction to add to his list: cancer survivor.

At that point, the federal research scientist—a man accustomed to digging for facts and figures—didn’t want to know any more, including statistical outcomes. “Whatever the prognosis, I vowed then and there that I would beat the odds,” he says.

So Bruce threw himself into a year-long battle, led by the medical triumvirate of MedStar Georgetown University Hospital’s Michael Pishvaian, MD, PhD, oncologist, and Thomas Fishbein, MD, director of the Center for Liver and Pancreas Surgery; and Thomas Stahl, MD, interim chairman of the Department of Surgery at MedStar Washington Hospital Center and regional director of Colorectal Surgery, MedStar Health.

“Both Liz and I had worked previously at medical schools in New York,” he says. “Knowing that the MedStar system included an academic medical center was important to us.”

Thanks to MedStar’s commitment to become a Distributed Care Delivery Network, Bruce received much of his advanced medical care at MedStar Montgomery Medical Center, closer to his Rockville home. Because MedStar Montgomery Medical Center is part of the MedStar Georgetown Cancer Network, patients can consult with and receive certain standard therapies from some of the network’s most highly trained cancer and colorectal specialists right on site. When patients need more complex procedures and services, those same experts can treat them at MedStar Georgetown University Hospital and MedStar Washington Hospital Center.

Bruce’s treatment, for instance, began with aggressive chemotherapy at MedStar Montgomery Medical Center, the site of his original diagnosis, to contain and shrink his primary and secondary tumors. Once down to an operable size, the tumors and neighboring sections of Bruce’s colon were removed at MedStar Washington Hospital Center; 10 weeks later, at MedStar Georgetown University Hospital, the affected portions of his liver were also removed. The intensive and successful treatment came full circle with a final round of chemotherapy back at MedStar VNA assisting at his home.

“The whole process was flawless. I’ve been around medical institutions my entire life and am incredibly impressed by MedStar Health.”

To buoy his spirits during chemotherapy, Bruce MacLachlan Raaka summoned his inner Scot, frequently piping “Scotland the Brave” at home. The self-taught player hopes to join a bagpipe band someday as retirement time approaches.

The first news Bruce Raaka heard was bad enough: He had colorectal cancer. But the more refined diagnosis, delivered a few weeks later, devastated the 61-year-old and his wife, Liz. The malignancy, already advanced, had metastasized to his liver. That change in status rendered surgery—the best line of attack—fruitless, unless chemotherapy could first halt his cancer’s progression.

At MedStar Georgetown University Hospital, the affected portions of his liver were also removed. The intensive and successful treatment came full circle with a final round of chemotherapy back at MedStar Georgetown Medical Center, with professionals from MedStar VNA assisting at his home.

“More and more colorectal cancers like Bruce’s can now be controlled—and even cured—thanks to the combination of surgery and today’s advanced chemotherapies,” says Dr. Pishvaian, who will continue to monitor Bruce in the future.

That’s music to Bruce’s ears.

“If there were so many moving parts, so many opportunities for error, every step along the way, he says, likening his personal experience to a biomedical research experiment. “But the whole process was flawless. I’ve been around medical institutions my entire life and am incredibly impressed by MedStar Health.”
For 24-year-old Andrew Guthrie, the future looks bright. After a triple major in college, he’s pursuing a PhD in computer science, he’s a skillful woodworker, and he loves lifting weights whenever he can. But in March 2013, a brutal injury to his right hand cast a shadow over the years ahead.

While Andrew was milling lumber for a prized piece of furniture, the planer blade sliced through the palm side of his little, ring and middle fingers.

Paramedics rushed Andrew to The Curtis National Hand Center at MedStar Union Memorial Hospital—one of the most advanced hand trauma centers in the world, and right in Andrew’s backyard. Acutely aware of the gravity of his situation, Andrew prepared himself for the worst: a future without three fingers.

But the center’s surgeons—experts in treating the most serious and complex hand, arm and shoulder disorders—had other plans.

“While we receive trauma patients and those needing either reattachment or toe-to-hand transfers somewhat regularly, Andrew’s case was unique,” says Ryan Katz, MD, lead surgeon. “His injury, though devastating, spared some bone and all the tissue on the back of the fingers. We felt we had enough to work with to rebuild a new, and useful, hand.”

So Andrew willingly relinquished the second toe from each foot as the first stage in a highly specialized procedure. Instead of just transferring the toes onto Andrew’s hands, however, Dr. Katz and team carefully deconstructed the digits, using specific parts to fashion new fingers and advanced microscopic techniques to reconnect delicate blood vessels and nerves. Five days later, Andrew was home.

Since then, he’s undergone several more surgeries to refine the appearance of his fingers, culminating in the removal of plates and pins this July. But 18 months after this harrowing accident, Andrew can type on a computer keyboard—crucial to completing a doctoral candidate’s rigorous demands—and resume the activities he enjoys.

“Andrew’s surgery was incredibly complex: an approach available at only a few centers in the world,” says James Higgins, MD, chief of The Curtis National Hand Center, a key contributor in planning and executing Andrew’s surgery, and co-leader on the multi-institutional team that—in 2013—performed one of the very few double arm transplants ever attempted. “From the most drastic cases to more common elective procedures, we work diligently to achieve the best possible outcome for each individual.” The results speak for themselves.

“I had no idea I could ever make a recovery like I’ve done,” Andrew concludes.

With the help of the experts at The Curtis National Hand Center, Andrew Guthrie has returned to the hobby he loves.
Mary Kelly loves to cook. So much so, she made a career out of it, spending 47 years in the kitchens of the Naval Air Station Patuxent River. But leg pain from diabetes forced her off her feet and into retirement. Then she developed a common yet serious complication: non-healing wounds, the bane of a diabetic patient.

Fortunately, nearby MedStar St. Mary's Hospital had just opened its Wound Healing Center, the only one of its kind within a 40-mile radius. The state-of-the-art facility features the most advanced treatments available, including bioengineered tissue substitutes, negative pressure wound therapy, growth factor therapies, and the highly effective but time-consuming treatment Mary needed: hyperbaric oxygen therapy (HBOT).

“HBOT is the pinnacle for treating difficult wounds,” says Olivia N. Sartain, RN, MSN, and the center's program director. “But the full course of care can be intense—two hours, Monday through Friday, for up to six weeks. So proximity to an HBOT facility is key for the best outcomes: It makes it easier and more convenient for patients to follow through with their complete treatment.”

Demand for the therapy is high. In the year since the Wound Healing Center opened, its two HBOT units regularly treat four to eight patients a day, the center’s capacity. In addition to MedStar St. Mary’s Hospital, HBOT is also available at MedStar Georgetown University Hospital and MedStar Good Samaritan Hospital.

While HBOT is prescribed for chronic bone infections, burns, side effects from radiation oncology treatment, and other difficult-to-heal conditions, diabetic wounds comprise the bulk of cases. Poor circulation is the culprit, reducing the flow of oxygen-rich blood to the lower extremities, resulting in foot and leg sores. During HBOT, patients breathe pure oxygen inside a highly pressurized chamber, which mobilizes infection-fighting white blood cells, promotes new collagen growth to close open wounds and stimulates the body’s other natural healing abilities.

Sporting her cook’s coat, Mary demonstrates the culinary skills she used during her long career. Thanks to MedStar St. Mary’s Hospital, she can still pursue her passion.
Baltimore resident Jimmy Kelly immediately answered the call for volunteers and was soon accepted into the hospital’s GRADE study. “My numbers have been slipping a little recently, and I felt like it was an opportunity to manage my condition better,” he says.

For Francisco, joining the trial had a twofold benefit. “I am forever grateful to MedStar Health and GRADE for the chance to restore my health, while advancing knowledge about diabetes,” he concludes. “I hope study results will one day help diabetic patients everywhere.”

Last year, thousands of MedStar Health patients and others across the region joined one of our many studies on promising new drugs, emerging healthcare technologies or novel approaches to care. Each contributed another piece to the puzzle, leading our physician scientists closer to understanding and managing cardiovascular disease, cancer and other serious conditions.

Dr. Stuart Levine championed GRADE’s expansion to MedStar Good Samaritan Hospital, which cares for a significant diabetic population. "Diabetes is a significant problem among our patient population," says Stuart M. Levine, MD, vice chairman, Strategic Growth and Research at MedStar Good Samaritan Hospital, GRADE’s second MedStar site. "With a strong program and an equally strong bond with the community, we’re an ideal real-world lab to test academic concepts."

Leaning healthier and happier, diabetes study participant Francisco Estrada attributes his newfound success to MedStar Health Research Institute. "Diabetes is a significant problem among our patient population," says Stuart M. Levine, MD, vice chairman, Strategic Growth and Research at MedStar Good Samaritan Hospital, GRADE’s second MedStar site. "With a strong program and an equally strong bond with the community, we’re an ideal real-world lab to test academic concepts."

Leaning healthier and happier, diabetes study participant Francisco Estrada attributes his newfound success to MedStar Health Research Institute.
FRONTLINE SOLUTIONS

"Organizing care around patients’ needs, with respect to their busy work and life schedules, makes it a lot less likely that someone will put off seeing a doctor or ignore symptoms," says Bob Gilbert, president of MedStar Ambulatory Services.

So in 2012, the system began introducing MedStar PromptCare—urgent care centers—followed by multispecialty care centers with a range of services. Ten urgent care and three multispecialty care centers later, the network is still growing.

MedStar Health at Federal Hill is the largest and most comprehensive to date and the first integrated, multispecialty care center to serve the south Baltimore community. Under one roof, patients can receive urgent, primary and preventive care, radiology and laboratory studies; and specialty services in cardiology, orthopaedics, sports medicine, surgery, rehabilitation, podiatry, and women’s health. The space’s design promotes quick and easy collaboration for the best, most thorough treatment plans, while an integrated electronic health record makes patient medical information readily available throughout the system. Free or low-cost health screenings, injury clinics, and health promotions and support programs are planned for the future.

Its opening came just in time for Federal Hill resident Scott Schaefer. After being rear-ended by a texting teenager, excruciating back pain sent Scott to the site’s MedStar PromptCare center, where he was seen by Kenneth Veenema, MD, medical director and sports medicine specialist. In one visit, Scott was examined, X-rayed and diagnosed, without leaving the building. After a few weeks of on-site physical therapy, he returned to his active routine.

"Scott is a good example of how we fast track patients so they can get a rapid and accurate diagnosis from a specialist, and start early, definitive treatment," says Dr. Veenema. "By concentrating care in one place with fewer appointments and eliminating long waits, we’re literally changing the way people experience health care."

Then misfortune struck again.

"I sprained my knee playing tennis and immediately went back to the Federal Hill site," says Scott. "Once again, Dr. Veenema examined me on the spot, and I received the orthopaedic care I needed right upstairs."

The population served by MedStar Health at Federal Hill is a mix of longtime residents who can’t or won’t travel far for health care, commuters working in the area and young transplants like Scott looking for quick, convenient service.
LEADERSHIP

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Executive Vice President

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President, MedStar Franklin Square Medical Center

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Executive Vice President

Sara E. Watkins
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MedStar Washington Hospital Center

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Sara E. Watkins
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MedStar Washington Hospital Center

MedStar Georgetown University Hospital

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President, MedStar Union Memorial Hospital

Brian S. Bartoo
Senior Vice President, MedStar Health

Sara E. Watkins
Senior Vice President, MedStar Health

MedStar Washington Hospital Center
**Fiscal Year 2014**

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<th>Description</th>
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**Community Benefit 2013 - $309.7 M**

- **Research** $7.0 M
- **Medical Education** $139.3 M
- **Charity Care/ Bad Debt** $109.2 M
- **Community Services** $54.2 M

*Includes unfunded government-sponsored programs; D.C. hospitals only.
† Includes subsidies, community health improvement services, community building activities, financial contributions, and community benefit operations.

**Partnering With MedStar Health Through Philanthropy**

Throughout the region, the associates of MedStar Health lead with knowledge and compassion. The growing philanthropic support received from grateful patients, families, community members, and others serves as a powerful validation of the value that MedStar brings to the health and well-being of the region.

You are invited to partner with MedStar Health by making a philanthropic investment in the way that matters most to you. Your investment may be motivated by gratitude for the excellent care and service a loved one received, or from a desire to improve the health of others. No matter the reason, philanthropic support enhances care delivery, innovation, research, and quality and safety programs that enable clinicians to provide world-class care right here in the community.

As a not-for-profit organization, MedStar Health is proud to reinvest income to fund our mission of caring. Philanthropic support matters in everything we do. We encourage you to engage us in a conversation to explore how we might work together to fulfill our mission and advance health across our region. Your return on such an investment promises to be real, meaningful and life-changing for thousands of patients and families, including those closest to you.

To explore philanthropic investment opportunities at MedStar Health, please contact Bruce A. Bartoo, CFRE, senior vice president and chief philanthropy officer, at 410-772-6847, or visit us online at MedStarHealth.org/Philanthropy.