The Gillian Reny Stepping Strong Fund
When our family was standing at the finish line of the Boston Marathon that fateful day in April 2013, we had no idea how, in just one instant, our lives would be forever changed. But, with expertise of the medical heroes at the Brigham and an outpouring of kindness from family, friends, and strangers across the globe, we learned that hope can emerge from even the most horrific tragedy. Two years ago, we established the Gillian Reny Stepping Strong Fund and became passionate advocates for funding innovative trauma research, training world class clinicians, and transforming outcomes for trauma survivors. Today, we remain steadfastly committed to our mission and look forward to taking it to the next level with the opening of the new Stepping Strong Trauma Center. Words cannot fully express the depth of our gratitude for your generosity and partnership in making this possible.

—AUDREY EPSTEIN RENY AND STEVEN RENY
Dear friends,

Two years ago, the Reny and Epstein families established the Gillian Reny Stepping Strong Fund at Brigham and Women’s Hospital to thank the medical heroes who saved their daughter Gillian’s life and limbs in the aftermath of the 2013 Boston Marathon bombing tragedy. Thanks to their visionary leadership, and to extraordinary support from donors like you, the Stepping Strong Fund is fueling significant progress in trauma research and care. Over the past year, the fund allowed us to welcome our first Stepping Strong Plastic Surgery Trauma Fellow and the Stepping Strong Research Scholars team published numerous papers on optimizing bone growth and advancing wound healing. Through the Stepping Strong Innovator Awards, we engaged more than 5,000 voters from around the world and awarded $100,000 grants to four researchers whose groundbreaking projects are transforming treatment and care for trauma survivors.

This is only the beginning.

Building on the incredible growth and momentum of the fund, now is the time to expand the program from a virtual catalyst for change into a physical hub, anchoring a sustainable network—an effort that will take trauma research and care to the next level. Dedicated to collaborative research endeavors in trauma, limb salvage, and tissue regeneration, the new Stepping Strong Trauma Center will fill a critical need and position BWH as the international leader in trauma care.

This progress simply wouldn’t be possible without your support. As you read our second annual report about the work made possible by the Stepping Strong Fund, I hope you share my pride in being part of an initiative that is inspiring hope, changing outcomes for trauma survivors, and saving lives.

My heartfelt thanks for your continued support.

With gratitude,

Elizabeth G. Nabel, M.D.
In 2014, the Reny family established the Gillian Reny Stepping Strong Fund at Brigham and Women’s Hospital (BWH) to honor the multidisciplinary care team that ultimately saved their daughter’s life and limbs following the Boston Marathon bombings. Today, as Gillian continues down her long road to recovery, she is resuming physical activities and taking on new challenges that seemed implausible in the aftermath of her injuries. As Gillian continues to make strides, so, too, does the fund, extending its base and attracting worldwide attention and support. To date, the Stepping Strong Fund has raised an astounding $6.7 million and counting.

This support is greatly needed: Despite the staggering statistics in the chart on page 3, trauma research remains underfunded.

The past year alone has seen many remarkable accomplishments. The Stepping Strong Innovator Awards program awarded four $100,000 grants to four physician-scientist research teams, each pursuing promising, groundbreaking projects that will advance treatment and care for trauma survivors. A team of Stepping Strong Research Scholars published breakthrough findings in two medical journals on bone healing. We welcomed our first Stepping Strong Plastic Surgery Trauma Fellow, Eugene Fukudome, MD, who is learning the newest techniques in reconstruction from a multidisciplinary team of physician educators. And, in January 2016, Mitchel B. Harris, MD, was honored as the Stepping Strong Distinguished Chair in Orthopedic Surgery.

“Traumatic injury accounts for 47 percent of deaths among civilians 46 years of age or younger. Eighty-two percent of soldiers return from battle with at least one extremity wound. These are devastating statistics that must be addressed through a multidisciplinary effort. The Stepping Strong Fund presents a unique opportunity to bring together the best and brightest experts at BWH with a shared goal of transforming outcomes for civilians and military personnel alike.”
—MITCHEL B. HARRIS, MD, STEPPING STRONG DISTINGUISHED CHAIR IN ORTHOPEDIC SURGERY

This is only the beginning. We have ambitious goals to expand the Stepping Strong programs and are excited to announce the establishment of the new Stepping Strong Trauma Center at BWH, which is dedicated to innovative, multidisciplinary research endeavors in all aspects of trauma (see page 18 to learn more).

The establishment of a world-class center is also a powerful testament to what the Stepping Strong Innovator Awards Council (see page 4), medical leaders, and all of our supporters have accomplished in just two years. We simply could not achieve these results and gain this momentum without your help. Thank you for joining us as we turn tragedy into hope.
AN INSPIRED SOLUTION  These numbers are overwhelming. And the personal stories behind the numbers are powerful reminders of what is at stake. The Stepping Strong Fund aims to turn tragedy into hope for all trauma survivors, whether they are soldiers injured in combat, teenagers harmed in a car accident, athletes hurt on the playing field, or cancer patients in need of reconstructive limb surgery. By collaborating across medical disciplines, pursuing innovative research, advancing medical education, and elevating clinical care, we aim to provide medical professionals with the tools and knowledge they need to deliver the best possible outcomes for those who have experienced the devastation of traumatic injury.
“The Stepping Strong Fund provides an amazing opportunity to help people suffering from traumatic injuries. In the two years we’ve been involved, we’ve seen it grow remarkably quickly to become an integral part of the Brigham. It’s humbling to be part of the Stepping Strong Innovator Awards Council along with so many experts from different medical disciplines. We’re very privileged to be part of this incredible initiative.”—BARBARA AND MICHAEL EISENSON

Sincere thanks to the Stepping Strong Innovator Awards Council members for their support and guidance as, together, we help trauma survivors.

STEPPING STRONG INNOVATOR AWARDS COUNCIL

Jeffrey and Sarah Beir
Matthew J. Carty, MD
Francis Claro
Tim and Deb Diggins
George S. Dyer, MD
Sandra Edgerley
Michael and Barbara Eisenson
David and Betsy Epstein
Esta Gordon Epstein and Robert Epstein
Elof Eriksson, MD
David and Nina Fialkow
Margaret Flanagan
Jane Reny Frank
Mitchel Harris, MD
James Kang, MD
Jennifer Epstein and Bill Keravuori
Jeffrey Karp, PhD
Michael Krupka and Ann Kubik, MD
Heidi Lehner
Robert and Carroll Pierce
Audrey Epstein Reny and Steven Reny
Danielle Reny
Gillian Reny
Ali Salim, MD
Indranil Sinha, MD
Elinor Svenson
Thomas Thornhill, MD
Ron Walls, MD
Patricia Winton
Michael Zinner, MD
A MESSAGE FROM GILLIAN RENY

I am so excited about the amazing changes that have taken place over the past two years—both in my life and in the success of the Stepping Strong Fund. Slowly but surely, we are both moving forward: In 2015, I had the opportunity to spend my fall semester studying abroad in Cape Town, South Africa. This had been a dream of mine since high school, but something that seemed far out of reach after the events of April 2013. I was thrilled to get the all-clear from my unbelievable team of physicians at the Brigham to embark on this once-in-a-lifetime adventure. Along with studying and making friends, I was able to participate in some incredible experiences. I tried surfing, hiked mountains, and even went bungee jumping off the highest bridge in the world. (My mom made sure I had Dr. Harris’s approval first!) These are fun rites of passage for any college student, but they were even more meaningful for me because they were activities I did not think I would ever experience following my injury. Thanks to the care I received at the Brigham, I was able to focus more on exploring a new country and less on how my injuries might hold me back.

Back at home, I pedalled in the Stepping Strong Cyc fundraiser and cheered on our Stepping Strong running teams. I am elated by the vision for the new Stepping Strong Trauma Center, which really captures the essence of what my family and I had hoped for from the start of this journey. It means so much to have new and continued support from the many friends, volunteers, and donors who have partnered with us every step of the way.

Thank you from the bottom of my heart.

Gillian
TAKING TRAUMA RESEARCH TO THE NEXT LEVEL
To advance our understanding of all aspects of trauma healing, a multidisciplinary approach is critical. For this reason, the Stepping Strong Fund supports three initiatives focused on research, education, and clinical care, aimed at catalyzing innovative investigations. The Stepping Strong Innovator Awards champion groundbreaking projects in a variety of areas related to trauma healing. The goal of the Stepping Strong Plastic Surgery Trauma Fellowship is to train the next generation of trauma surgeons in treating acute and complex traumatic injury. And the Stepping Strong Research Scholars program supports the endeavors of investigators who are studying skin regeneration, wound healing, and the role of stem cells in bone regeneration. We are pleased to report that our researchers and clinicians are making significant strides in all three of these areas.

SCIENCE AND SURPRISES: 2015 STEPPING STRONG INNOVATOR AWARDS
Pioneering advances in science and medicine do not occur in a vacuum—they depend on collaboration, inspiration, and out-of-the-box thinking. To spark such innovation, the Stepping Strong Innovator Awards recognize investigators through a competitive request-for-proposal process. These $100,000 grants fund high-reward projects developed by the best trauma care physicians and researchers at BWH and collaborating institutions.

On October 7, 2015, after a rigorous four-month process that drew more than 5,000 votes from all 50 states and 74 countries, Bohdan Pomahac, MD, was declared the winner of the first of four 2015 Stepping Strong Innovator Awards. His project, “From Battlefield to Bedside: A Portable Device for Rescuing Limbs,” involves a portable machine that may be able to keep detached limbs—arms, legs, hands, and feet—alive for at least 12 hours, and perhaps up to 48 hours. This significantly improves the current survival time of four to six hours. The award will allow the team to determine exactly how long limbs can survive with this new technology. Pomahac’s award was made possible by a generous donation from Elinor Svenson.
After Pomahac expressed his gratitude, BWH President Betsy Nabel, MD, made a surprise special announcement that the other 2015 competition finalists—Omid Farokhzad, MD, of the Department of Anesthesiology, and Su-Ryon Shin, PhD, of the Department of Medicine—would also be awarded $100,000 each from her President’s Fund to pursue their groundbreaking projects, signaling her strong commitment to pursuing excellence in the trauma arena.

Farokhzad’s project, Healing Bones with Nanodrones: The Next Frontier in Orthopedic Surgery, aims to address the problem of bacterial infections and lack of new bone growth in patients who undergo orthopedic trauma surgery. He and his team are developing very small biodegradable robots called nanomedicines that can deliver antibiotics and other drugs to promote bone growth and wound healing in a much more efficient way. These nanorobots can stick to a biodegradable moldable material that is placed in the bone defect to target bacteria and deliver drugs to kill them, and to also deliver drugs that will help the bone heal faster and better.

Shin’s project, Using 3-D Bioprinting to Heal Muscle Trauma, addresses the muscle damage and loss common in survivors of trauma-related injuries by using specially engineered 3-D muscle tissue that contains blood vessels and mimics living cells. This tissue, created through a process called bioprinting, holds great promise as an alternative therapy because of its ability to re-establish the structure and function of the injured muscle tissue without potentially harmful surgeries or costly transplants.
A few weeks later, in a closed-door voting session held November 5, Edward J. Caterson, MD, PhD, was awarded the final $100,000 grant of the 2015 Stepping Strong Innovator Awards series. Titled Healing Injuries in the Traumatic Extremities, Caterson’s hypothesis is that a clear, thermoplastic gel, which becomes solid when warmed to body temperature, can be used to encase open traumatic wounds and deliver topical antibiotics to trauma patients, thus preventing cross-contamination of infected wounds. Caterson was one of three Stepping Strong Innovator Awards finalists along with researchers Reza Abdi, MD, and Ali Khademhosseini, MD, PhD.

“As a dad, I was stunned to learn the extent to which young people are at risk of traumatic injuries, whether as a result of a car accident, a devastating act of violence, or through combat injury. We must fund research and care programs that will enable trauma patients to have the best possible outcomes, and Stepping Strong is taking the lead to ensure this happens.”
—FRANCIS CLARO, STEPPING STRONG INNOVATOR AWARDS COUNCIL

“The gel is a safe material that will isolate the traumatic wound from a microbiologic perspective, but still allow for direct care and observation of the site,” says Caterson. “We are incredibly grateful to Guy and Betty Reny for funding this award, which will allow us to initiate this exciting research.”
Meet the Innovators

Edward J. Caterson, MD, PhD, is a plastic surgeon at BWH and an instructor at Harvard Medical School (HMS). He was the first graduate of the National Institutes of Health’s first formal PhD program in the country for Tissue Engineering and Regenerative Medicine. His clinical interests are craniofacial surgery, craniofacial trauma, advanced cutaneous malignancy, and complementing BWH’s composite tissue transplantation research efforts with tissue engineering and regenerative medicine initiatives.

Omid Farokhzad, MD, is a physician-scientist in the Department of Anesthesiology at BWH and an associate professor at HMS. He directs the Laboratory of Nanomedicine and Biomaterials at BWH. He is a faculty member of the Brigham Research Institute Cancer Research Center and a member of the Dana-Farber/Harvard Cancer Center Programs in prostate cancer and cancer cell biology. Farokhzad’s research is focused on the development of therapeutic nanoparticle technologies; most notably, he pioneered the high-throughput combinatorial development and screening of multifunctional nanoparticles for medical applications.

Bohdan Pomahac, MD, has led the BWH Burn Center as medical director while also performing a broad range of plastic surgery and microsurgery procedures. He established the Plastic Surgery Transplantation Program at BWH, one of the world’s leading centers in face and vascularized composite tissue allotransplantation (VCA). As a pioneer in the field of VCA transplantation, Pomahac led the teams that performed the second partial face transplant and the first three full-face transplant procedures in the U.S. His research team is currently working on implementation of immunosuppression minimization strategies in clinical trials, development of technology to extend the viability of tissues, and other research topics related to VCA transplantation and plastic surgery.

Su-Ryon Shin, PhD, is a researcher at BWH, an instructor at HMS, and is affiliated with the Wyss Institute for Biologically Inspired Engineering and the Harvard-MIT Division of Health Sciences and Technology. Her research focuses on developing microscale and nanoscale technologies to control and monitor cellular behavior, with particular emphasis in developing micro-scale biomaterials and engineering systems for biomedical applications. Her recent work focuses on multifunctional cardiac scaffolds and 3-D biohybrid actuators using biocompatible hydrogel for both therapeutic purposes and in vitro studies.
STEPPING STRONG PLASTIC SURGERY TRAUMA FELLOWSHIP

To ensure trauma research and care continue to evolve, it is crucial we train the next generation of experts in this field. The Stepping Strong Trauma Fellowship, the first of its kind in the nation, aims to train young trauma surgeons in advancing techniques for treating acute and complex traumatic injury. Every year, the Stepping Strong Fund supports one such fellow, under the co-direction of Eric Halvorson, MD, and Christian Sampson, MD.

In July 2015, we welcomed Eugene Y. Fukudome, MD, as our inaugural fellow. Fukudome is working side by side with BWH’s renowned plastic surgeons, learning and applying techniques for limb salvage, reconstruction, craniofacial restoration, and other complex procedures. As a former resident in Harvard Medical School’s combined plastic surgery program, Fukudome was very familiar with both the impact of the Boston Marathon bombings and the creation of the Stepping Strong Fund, making the fellowship a natural next step for him.

“BWH is home to many of the world’s leading plastic surgeons with years of experience in the field,” he said. “Reconstructive surgery is not like a standard operation—it is very individualized and requires flexibility and creativity. That’s why it is so valuable to get hands-on experience and input from these mentors. I am very grateful for the unique opportunity that I had during the inaugural year of the fellowship and know that this experience will inform the trajectory of my future career.”

Fukudome’s impact will not be limited to his time in the fellowship program. Once his training at BWH is complete, he will take with him the exceptional patient experience he has gained here. In doing so, he will spread his skills and knowledge to other clinicians, furthering the influence of the Stepping Strong Fund throughout the field and strengthening the growing network of trauma care specialists with connections to the Stepping Strong effort.

“We are grateful to the Reny family for supporting the Stepping Strong Plastic Surgery Trauma Fellowship. This unique educational program will advance trauma care wherever fellows may practice, expanding the footprint of the fund’s educational efforts.” —ERIC HALVORSON, MD

Left: Christian Sampson, MD, Audrey Epstein Reny, Steven Reny, and Eric Halvorson, MD; Right: Su-Ryon Shin, PhD, Indranil Sinha, MD, Elof Eriksson, MD, PhD, and Suellen Perold.
Two multidisciplinary teams of scholars continue to push the boundaries of transformative trauma-related research care. **Julie Glowacki, PhD**, and **Mitchel B. Harris, MD**, are exploring the use of stem cells to advance bone regeneration, with the goal of gaining a deeper understanding of the effects of age, hormone deficiency, and vitamin D deficiency on bone-forming cells. **Dennis Orgill, MD, PhD**, and **Laura Bayer, PA-C**, are working to develop better methods to regenerate skin and heal wounds.

This past year has seen several advances by Glowacki and her team. One recent study, published in the Journal of Steroid Biochemistry and Molecular Biology, examined ways to optimize bone growth using discarded human marrow-derived mesenchymal stem cells (MSCs). Having the opportunity to study human cells that otherwise would be discarded gives Glowacki’s team a powerful tool for optimizing bone repair and regeneration following injury. The Stepping Strong Fund also supported a study by Glowacki and her colleague Shuanhu Zhou, PhD, that identifies new targets for optimizing skeletal health, holding promise for those with traumatic injuries.

Similarly, Orgill’s team made impressive headway last year, publishing more than 20 papers on wound healing, reconstruction, and other related subjects. One study looked at commonly available skin substitutes used in wound healing and found that semisynthetic dermal scaffolds and allogenic cell constructs are currently the best-studied options. Orgill has also begun collaborating with Stepping Strong Innovator Awards finalist Reza Abdi, MD, of the Harvard Stem Cell Institute to develop better skin wound healing constructs. We look forward to updating you next year on the scholars’ continued progress.

“A unique Boston Strong spirit emerged in the wake of the tragedy in 2013, and the Stepping Strong Fund is keeping that alive by advancing cutting-edge trauma research. I am proud to be involved in an initiative that’s transforming tragedy into possibility.”

—TRICIA WINTON, STEPPING STRONG INNOVATOR AWARDS COUNCIL

**Eugene Y. Fukudome, MD**, grew up in Tokyo, and moved to the United States to attend college and medical school at Brown University in Providence, Rhode Island. He completed his general surgery training at Massachusetts General Hospital (MGH) including two years of laboratory research, working with the trauma division at MGH, before ultimately deciding to pursue a career in plastic surgery. After graduating from the Harvard Combined Plastic Surgery Residency Program in June of 2015, he began the BWH Stepping Strong Plastic Surgery Trauma Fellowship. He continues to enjoy the unique and diverse challenges of plastic surgery, and is looking forward to developing a general plastic and reconstructive surgery practice.
It was a productive and eventful year, with many notable highlights along the way. Whether we were cheering on our Stepping Strong teams, casting our vote for innovative research projects, or planning fundraisers, we’ve been busy keeping the Stepping Strong Fund at the forefront of trauma research and care. Here’s just a sampling of the wonderful work being done thanks to your support.

“The Stepping Strong Fund has energized us to raise awareness for trauma research. Two of our children ran the Boston Marathon and the rest of us participated in the B.A.A. 5K race. We’re delighted to be part of the continuing effort to improve care for people with trauma injuries.”
—SARAH AND JEFFREY BEIR, STEPPING STRONG INNOVATOR AWARDS COUNCIL

$6.7M
raised to date

$470K
raised by the Stepping Strong Marathon Team
Innovator Awards

$46K raised by the B.A.A. 5K Team

$17K raised by the New Balance Falmouth Road Race Team

5,000 voters

50 states

74 countries
COMMUNICATING OUR IMPACT: STEPPING STRONG IN THE MEDIA

Creating awareness for the devastating impact of trauma and the need for funding advances remains at the forefront of the Stepping Strong media strategy. In 2015, the Stepping Strong Fund captured the imagination of local and national media, celebrities, and thousands of individuals worldwide. This year also marked the launch of a vibrant Stepping Strong Facebook page which, after only three months, already has more than 1,500 followers.

“The mark [of the Boston Marathon tragedy] is indelible in our city’s history, but so is the resolve that has emerged from its survivors. Some are Boston natives, others are lifelong distance marathoners. One is a resilient 20-year-old from a runner’s family who just may dance again someday.” —JACKIE MACMULLEN, ESPN SENIOR WRITER
Every athlete runs for different reasons, whether it is to beat their best time, check an item off their bucket list, or raise money and awareness for a particular cause. For members of the 2015 Stepping Strong Marathon Team, the goals were both personal and public but all were united in their quest to run 26.2 miles on behalf of trauma innovation. Running down Boylston Street and returning to the site of the 2013 Boston Marathon bombings continues to serve as a powerful message of how we as a community are triumphing over tragedy. Runners also joined the Stepping Strong B.A.A. 5K and our first New Balance Falmouth Road Race teams to further our mission. By running on behalf of Stepping Strong, our athletes in these three races raised a combined total of more than $530,000.

“Running the Boston Marathon wearing the Stepping Strong singlet was a life-changing experience. The team camaraderie, the endless support on weekend runs, the weekly messages from the Brigham, and constant gratitude from the Renys put everything into perspective. Have your ‘perspective’ moment. Change lives, including your own, and run for Stepping Strong.”
—TYNAN FRIEND, 2015 STEPPING STRONG MARATHON TEAM

Thanks to the support of the Boston Athletic Association and BWH, another extraordinary group of runners will form the 2016 Stepping Strong Marathon Team. Two years ago we began running with a small group of friends and family, and now the team has grown to include 48 runners from across the country and globe. These runners were selected from an amazing pool of applicants and each one has an inspiring story about why they are committed to the Stepping Strong mission. We are grateful to all of them for their dedication to training, running, and fundraising for trauma survivors.
In March, Stepping Strong received $5K from a 50-50 raffle at a Boston Celtics game with the help of the Boston Celtics Shamrock Foundation.

The sixth grade class at Spofford Pond raised $838 through fundraising activities in March.

In October, an international contest drew votes from 50 states and 74 countries, and Bohdan Pomahac, MD, was declared the winner of a $100K prize.

In January, Betsy Nabel, MD, announced the establishment of the Stepping Strong Trauma Center, and Mitchell B. Harris, MD, was declared the inaugural Stepping Strong Distinguished Chair in Orthopedic Surgery.

Students at Buckingham, Browne and Nichols raised $340 in February during a lower school book bonanza.

On Marathon Monday, The Beehive Restaurant donated 100 percent of its proceeds to the fund.

An online auction in May raised $10K for a lucky winner thanks to a special effort by The Beehive Restaurant and Chef Marc Orfaly.

Corrine Milbury and Meaghan Williams were among 33 Stepping Strong Marathon team runners who raised an extraordinary $470K on April 20.

In November, 25 cycling enthusiasts, including two of Gillian’s doctors and one ER nurse, raised nearly $3,500 to advance trauma research and care at Cyc Boston spin class.

In October, an international contest drew votes from 50 states and 74 countries, and Bohdan Pomahac, MD, was declared the winner of a $100K prize.
Marathon Sports held a Stepping Strong raffle on One Boston Day in April, raising more than $2K.

In April, songwriter Carol Hamblet Adams donated 100 percent of proceeds from her CD, “Boston Strong, Boston Proud,” to Stepping Strong.

The Renys congratulated Marcy Kaiser, the top Stepping Strong B.A.A. 5K fundraiser, at an after-party at Rattlesnake Bar and Grille on April 18.

In April, songwriter Carol Hamblet Adams donated 100 percent of proceeds from her CD, “Boston Strong, Boston Proud,” to Stepping Strong.

In August, 30 Stepping Strong runners braved the heat and crossed the finish line at the 43rd annual New Balance Falmouth Road Race, raising $17K.

In July, the Boston Business Journal honored Audrey Epstein Reny as one of its Healthcare Heroes in the volunteer category.

In August, 30 Stepping Strong runners braved the heat and crossed the finish line at the 43rd annual New Balance Falmouth Road Race, raising $17K.

More than 80 donors and medical leaders attended the Stepping Strong Innovator Awards Meet the Finalists event in September.

Winners of the 2014 Stepping Strong Innovator Awards, including Matthew J. Carty, MD, provided research updates at the Stepping Strong Grand Rounds in January.

In February, Carol Sharp and Tricia Winton organized the second annual SoulCycle event, raising $10K.

In January, the American Academy of Medical Colleges awarded the Stepping Strong Fund an Award of Excellence in the Development Communications category.
EXPANDING OUR VISION: THE STEPPING STRONG TRAUMA CENTER

On January 7, 2016, clinicians, researchers, and supporters gathered for a meeting of the Stepping Strong Innovator Awards Council. But the awards were not the only topic of conversation. After BWH President Betsy Nabel, MD, welcomed council members, she made a special announcement about the creation of a new Stepping Strong Trauma Center.

“Given all that the fund has accomplished, the time is right to expand the program from a virtual catalyst for change into a physical hub, anchoring a sustainable network and extending well beyond Boston—an expansion that will bring us to the next level and position the Brigham as the national leader in trauma research and care,” she said.

Nabel noted that, until the establishment of the Gillian Reny Stepping Strong Fund, trauma was largely under-recognized by the philanthropic community, and remains one of most underfunded and under-represented medical disciplines. The Stepping Strong Trauma Center is poised to change all that. Its location alone signifies the importance hospital leaders have placed on this area of research.

The center will reside on the fifth floor of the new Brigham Building for the Future, which will open in September 2016. The building will be one of the most technologically sophisticated research and patient care facilities in the country, with the ability to seamlessly integrate patient care with basic, translational, and clinical research programs. There, the Stepping Strong Trauma Center will function as a think tank, with laboratories, conference rooms, research bays, and suites, all encouraging enhanced collaborations that reach across medical disciplines and departments.

After Nabel’s presentation, James D. Kang, MD, the recently appointed chair of BWH’s Department of Orthopedic Surgery, announced the center’s first director, Mitchel B. Harris, MD. As one of the experts who was instrumental in caring for Gillian and others following the Boston Marathon bombings, Harris—the current chief of orthopedic trauma at BWH, a Stepping Strong Scholar, and the inaugural Stepping Strong Distinguished Chair in Orthopedic Surgery—is uniquely qualified for this role.
“I am very flattered by this exciting opportunity,” Harris said. “Many of us are already actively pursuing research in the area of trauma but are not well connected to others working on similar projects. The new center will help us break out of those silos and synergize our efforts so that we are all stepping in line together.”

“We already are in the process of recruiting new scientists who are doing basic research in muscle biology and regeneration and who can help us understand the underpinnings of muscle trauma, a recurring deficit in traumatic injury.” —JAMES D. KANG, MD, CHAIR, DEPARTMENT OF ORTHOPEDIC SURGERY

Although the Stepping Strong Fund was born from the aftermath of the Boston Marathon bombings, traumatic injuries affect a wide variety of patients, from those who have experienced trauma due to accidents, infections, and many other causes, including cancer, to those in the military. The center will join researchers and clinicians from disciplines such as plastic surgery, general surgery, vascular medicine, emergency medicine, radiology, tissue engineering, and more in working side by side on trauma-related projects. A co-director from one of these important disciplines will also be appointed to work with Harris.

We envision these collaborations taking place in formal and informal settings: formally, through the Stepping Strong Grand Rounds and Stepping Strong Innovator Awards programs, and informally, on a day-to-day basis, as brilliant minds work together to expand the boundaries of trauma research. Beginning with basic scientists determined to uncover the roots of bone and muscle growth to clinicians devoted to developing advanced therapies for traumatic wound treatment, and laboratories dedicated to advancing techniques in bioengineering, limb salvage, and tissue regeneration, the center will fill a critical gap in trauma funding and research.
To stress the importance of our commitment to injured military personnel, plans are underway to pursue large-scale programmatic support for the Stepping Strong Trauma Center from the Department of Defense (DoD), the federal agency whose funding priorities most closely match the center’s focus and mission. Over the years, the DoD has generously supported research related to trauma—precisely the type of research supported by the center. Building on BWH’s strong track record in trauma care and restorative medicine, we will leverage Stepping Strong’s considerable achievements to seek DoD funding on the order of $20 million to $30 million.

“I am pleased to announce that BWH and Stepping Strong leadership, in collaboration with a multidisciplinary team of physicians and scientists, have begun a comprehensive strategic planning process to align the Stepping Strong Trauma Center’s research initiatives with appropriate DoD funding initiatives.” — PAUL ANDERSON, MD, PHD, CHIEF ACADEMIC OFFICER AND SENIOR VICE PRESIDENT OF RESEARCH

“Our overarching goal for the center is to bring together individual scientists and clinicians with a common interest in trauma to help streamline research,” said Harris. “By uniting everyone under one roof, we hope to encourage deep collaborations and ultimately obtain bigger grants that will fund ongoing research in this important field.”

He concluded, “Our final mission is to transform the future of trauma research and clinical care by providing medical leaders with the tools and knowledge they need to deliver the best possible outcomes for trauma patients.”

Mitchel B. Harris, MD, is chief of orthopedic trauma at BWH and the incumbent Stepping Strong Distinguished Chair of Orthopedic Trauma. The recipient of the 2015 Hippocrates Society Humanitarian Award, Harris is responsible for organizing the clinical and administrative structure of the orthopedic trauma service at BWH as well as coordinating orthopedic trauma services with Massachusetts General Hospital and Beth Israel Deaconess Medical Center under the umbrella of Harvard Orthopedic Trauma Services. Harris is a professor of orthopedic surgery at HMS. He completed his medical degree at the University of Illinois-Chicago and his orthopedic residency at Dartmouth-Hitchcock Medical Center. He received teacher of the year awards at Louisiana State University (2000), Wake Forest (2003), and Harvard’s Combined Orthopedic Residency Program (2004). Harris is the founding co-director of the BWH–Harvard Business School’s Mid-Career Physician Leadership Program. He has been on the leadership committee of the Academy of Orthopaedic Surgeons and has been directly involved with the development of a leadership program for the North American Spine Society.
The second year of the Gillian Reny Stepping Strong Fund has seen much progress, thanks to generous support, from the runners who spread awareness and raised funds for us, to the Stepping Strong Innovator Awards Council members who have provided strategic guidance, to the engaged BWH community that embraces our vision. We continue to fuel inspired investigations in this field through our Stepping Strong Innovator Awards recipients and Research Scholars. We are committed to training the next generation of clinicians dedicated to improving the lives of patients with traumatic injuries. And we are thrilled to report that our initial idea is becoming an institutional priority. We look forward to updating you on the new collaborative Stepping Strong Trauma Center as it takes shape in the year ahead. We could not have made these remarkable strides without your generosity, and we are incredibly grateful to have you by our side.
TO ALL WHO HAVE CONTRIBUTED TO THE GILLIAN RENY STEPPING STRONG FUND, WE OFFER OUR SINCERE THANKS. WITH YOUR GENEROSITY, WE HAVE RAISED $6.7 MILLION AND COUNTING.

$1,000,000+
Brigham and Women’s Physicians Organization, Department of Orthopedics
Esta Gordon Epstein and Robert Epstein
Audrey Epstein Reny and Steven Reny

$10,000+
Atlantic Trust
Jacqueline Bell and Aron Epstein
Lisa and Thomas W. Blumenthal
Ann W. and Donald A. Brown
Bruner/Cott & Associates, Inc.
Lee Pendergast Claro
The Edgerley Family Foundation
Evans Family Foundation
Mary and John P. Fowler
Guttag Family Foundation
Elizabeth and Mitchell B. Harris, MD
Shannon Shay Hayden and Andrew Hayden
Jones Lang LaSalle
Barbara N. Kravitz
Monica and Michael Lehner
Elizabeth M. and Phil H. Loughlin
Catherine and John Mandile
Sarah and Dana Nielsen
Orchard Foundation
Lynn McKenna Reny and Douglas Reny
Pixley and Kenneth T. Schiciono
Standard Duplicating Machines Corporation
Stephanie L. Brown Foundation
Lauren and Benjamin Svenson
Sarah and Eric Svenson
Mark Teden
Jane Veron and Andrew Feldstein
Watermark Donut Company
Patricia and Nicholas D. Winton

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(Carol Hamblet Adams)
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The Day Boston Stood Still Book Sales
(Josh London Photography)
Equinox Boston Marathon Fundraiser
Harpoon / Mass Bay Brewing Company
Harvard Softball Team
In honor of Vivien Keravouri’s Bat Mitzvah
Marathon Sports
New Balance
Nix’s Mate Marathon Fundraiser
ProEx Physical Therapy Fundraiser
SoulCycle Chestnut Hill
(Carol B. Sharp, Patricia Winton)
Spofford Pond School Fundraisers
(Boxford Parent Teacher Organization Inc.)
Starwood Hotels Invitational Golf Tournament
In Memory of Michael Stedman
Storyville Club Night (The Speakeasy Group)
Sweet Cupcakes Marathon Fundraiser
(SWEET Bakery)
Winston Flowers

*Deceased

Stepping Strong is grateful to all the runners who ran on our behalf in 2015, including members of the B.A.A. 5K team, the Boston Marathon team, and the New Balance Falmouth Road Race team. In addition, we thank the organizations and individuals who donated spaces and other services in support of these runners' individual fundraising efforts.