The nervous system is phenomenally complex. Ask the heads of the Harvard NeuroDiscovery Center—Director Adrian Ivinson, PhD, and Co-chairs Michael Greenberg, PhD, and Dennis Selkoe, MD—and they’ll acknowledge that the neurobiological research race is more of a marathon than a sprint. But there exists a palpable excitement among them and throughout the field. Not only do scientists know more about the human nervous system than ever before, but their potential for progress stretches far beyond the community’s cumulative knowledge.

“It is the revolutionary new tools at our disposal, the realization that cross-disciplinary collaboration is more powerful than we had ever imagined, and the innovation and energy of our local neuroscience community that give us hope,” says Ivinson.

That feeling of optimism has been bolstered recently by a $12 million anonymous gift that builds upon the successes achieved since the center’s inception in 2001 and applies them to a new and even more collaborative model, one that holds enormous promise in achieving tangible, life-changing results.

“The Harvard NeuroDiscovery Center directs its energy and resources toward a better understanding of nervous system development, function, and dysfunction, and then leverages that understanding to explore and test new treatments for patients and new preventive approaches for those at risk of disease,” explains Ivinson. “This generous gift makes possible the transfer of basic neurobiology discoveries to translational programs and finally to patients, which is the all-important light at the end of the tunnel.”

Accelerating Progress

When it comes to tackling conditions and diseases of this magnitude, from Alzheimer’s and Parkinson’s to autism, multiple sclerosis, dementia, and schizophrenia, collaboration is key. With that in mind, Harvard Medical School Dean Jeffrey S. Flier, MD, catalyzed a discussion in 2011 that challenged the NeuroDiscovery Center team to imagine how it could be even more effective in convening neurobiologists across the broader HMS community.

What emerged was an acute understanding that the best path toward developing effective new therapies and cures was to build a stronger bridge between the basic and the translational neuroscience communities. This new gift will make that critical link a reality.

“Most translational programs grow out of basic neuroscience,” explains Selkoe, the Vincent and Stella Coates Professor of Neurologic Diseases at HMS and co-director of the Center for Neurologic Diseases at Brigham and Women’s Hospital. “Integrating our basic neuroscience faculty into the NeuroDiscovery community strengthens our approach to neurological problems they present.”

While some areas of neurobiology research are still best tackled by relatively small, single-lab groups, others require a range of skills and approaches that must be compiled from parts distributed across many institutions. “This new support gives us the freedom to assess each individual research challenge and assemble the optimum support, skills, and resources to meet the challenge,” says Greenberg, the Nathan Marsh Pusey Professor of Neurobiology and chair of the Department of Neurobiology at HMS. “The combination of our incredible investigators, the resources and skills that we can now put at their disposal, and an administrative structure that allows us to rapidly adapt and reshape our programs depending on the changing needs of our community mean that nothing is beyond our reach.”
Dear Friends,

This issue of The Benefactor celebrates those donors whose investments in Harvard Medical School are having a transformative effect on our work and the patients who are the ultimate beneficiaries of our progress.

Among them are Kathleen and Larry Paul, MD ’90, who have endowed a scholarship fund to ensure the best and brightest medical students continue to choose HMS, regardless of their economic backgrounds.

In the area of discovery, we celebrate a momentous $12 million gift from an anonymous donor to transform the Harvard NeuroDiscovery Center. We are also thankful for gifts of $1.5 million from the New York Stern Cell Foundation to study short-term memory and decision-making, $1 million from the Burroughs Wellcome Fund supporting two cross-trained basic research scientists, and $1 million from Peter and Carolyn Lynch and their foundation to support a fellowship program in Systems Biology.

Our commitment to serve humanity has been amplified by two gifts supporting global health, including $1 million from Robert Kaplan to support the vision of Department of Global Health and Social Medicine Chair Paul Farmer and a more than $1.3 million gift from Stephen Kahn, MD ’99, and the Abundance Foundation to inspire student innovation and advance global mental health. We also received an additional $4 million gift from an anonymous philanthropist to spark new levels of innovation within the HMS Center for Primary Care.

It is certainly an exciting time at Harvard Medical School. Thank you for standing with us as we work to alleviate human suffering caused by disease.

Sincerely,

Susan Rapple
Dean for Resource Development

IDEAS ABOUND AT LEADERSHIP SUMMIT

The second annual Harvard Medical School Leadership Summit, held in late October, convened the School’s leadership volunteers and friends for a day of dialogue and action toward building the future of our world-class research, education, and service to humanity. Highlighting the event—and arguably the year—was a series of short, thought-provoking MED-ED presentations given by renowned HMS faculty, alumni, and leadership volunteers.

Below: Built to share and inspire new ideas, the MED-EDs were moderated by Freda C. Lewis-Hall, MD, DFAPA (front, in orange coat), executive vice president and chief medical officer of Pfizer and a member of the HMS Board of Fellows, and included talks by (left to right) Mark Boguski, MD, PhD, associate professor of pathology at HMS and Beth Israel Deaconess Medical Center and a research associate at the HMS Center for Biomedical Informatics; Juan Enriquez, and a member of the HMS Board of Fellows; and Galit Lahav, PhD, associate professor of Systems Biology at HMS.

During lunch, guests heard a keynote speech by HMS Board of Fellows Chair William H. Frist, MD ’78, chairman of Hope Through Healing Hands Foundation and former U.S. Senate Majority Leader.

To view the MED-ED presentations, visit youtube.com/harvardmedicalschool and click on the “MED-EDs” featured playlist.

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The Benefactor: Partners in Discovery is produced by the Harvard Medical School Office of Resource Development, 401 Park Drive, Suite 22 West, Boston, MA 02215.

Dean for Resource Development
Susan Rapple

Editor
Laura DeCoste

Contributors
Matt Durno
Amy Ross

Production Coordinator
Eliza Mitchell

Writers
Laura DeCoste
Eliza Mitchell
Jennifer Montfort
Nicole Mortimer
Brandy Newton

Design
Sametz Blackstone Associates

For information, please contact Laura DeCoste, executive director of development communications and special events, at 617-384-8529 or laura_decoste@hms.harvard.edu.

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Incubating innovation in primary care

It has been said that when the right people come together, problems can become opportunities. Perhaps no one understands that more than the leaders of the HMS Center for Primary Care. Together, they are laser-focused on solving the national and global health care crises by transforming how primary care is delivered and how medical practitioners and leaders are trained.

Established in 2010 through a landmark $30 million gift from an anonymous donor, the Center has made marked progress toward its ambitious goals in just two years. Excited by this promising trajectory, the anonymous donor has given an additional $4 million to spark new levels of innovation among students, faculty, and the community.

“Teamwork, collaboration, and innovation are essential to driving down costs and improving quality,” says Russell Phillips, MD, director of the Center for Primary Care and professor of medicine at HMS. “This generous gift allows us to put resources to work immediately and create the most substantial impact. As the Center grows and identifies new needs and opportunities, current-use funding allows us to adapt and expand programs to meet the ever-changing needs of the primary care community.”

Student Focus

Half of this new gift will fund a challenge grant to Harvard-affiliated academic medical centers to create a model family medicine residency program to train the next generation of leaders in this critical area. According to Center Co-director Andrew Ellner, MD ‘04, while both pediatrics and internal medicine have produced fewer primary care physicians in recent years, nearly all family medicine residents enter the field of primary care once they have completed training.

“Although family medicine is a critical part of the primary care workforce, HMS is one of a small list of prestigious medical schools that lacks a family medicine presence,” says Ellner.

“Creating a residency program affiliated with Harvard signals our intention to embrace family medicine and to help address the primary care crisis.”

The remaining $2 million will create two funds focused on developing health care leadership and innovation. The Health Care Leadership, Innovation, and Management Fund will allow HMS to develop the expertise necessary to provide consultation, curriculum, teaching, and research on primary care innovation. The Innovation Incubator Fund will support an innovation laboratory, in concert with the Harvard Innovation Lab (iLab), encouraging collaboration among students at HMS and across Harvard to partner with faculty and entrepreneurs to develop new technologies and organizational approaches that promote health and redesign the way care is delivered.

“This incubator will create resources that not only support innovation by students and faculty, but also support the formation and growth of new companies that might result from innovative ideas generated by the program,” says Phillips. “We are thrilled about the ideas and improvements our students will help to catalyze in our own backyard and far beyond.”

Ellner adds that the Center has already had a promising experience with this approach in response to a competitive challenge grant that proposed new ways to improve health among patients served by community health centers. This program, led by Myechia Minter-Jordan, MD, MBA, faculty lead for the Abundance Agents of Change Program, instructor of Medicine at HMS, and CEO of the Dimock Center, resulted in entries from 12 teams, four of which were selected for funding.

FOUR LUMINARIES RECEIVE WARREN ALPERT FOUNDATION PRIZE

The Warren Alpert Foundation Prize honors physicians and researchers for contributions to humanity and breakthroughs in the understanding and curing of major diseases. The prize is one of biomedicine’s most prestigious international awards, and this year four distinguished scientists were honored for their leading role in the discovery, preclinical and clinical development, and FDA approval of bortezomib as a front-line therapy for patients with multiple myeloma.

The honorees are Julian Adams, PhD, president of research and development at Infinity Pharmaceuticals; Kenneth C. Anderson, MD, Kraft Family Professor of Medicine at HMS and director of the LeBow Institute for Myeloma Therapeutics and Jerome Lipper Multiple Myeloma Center at Dana-Farber Cancer Institute; Alfred L. Goldberg, PhD, professor of cell biology at HMS; and Paul G. Richardson, MD, R.J. Corman Professor of Medicine at HMS and clinical director of the Jerome Lipper Multiple Myeloma Center at Dana-Farber.

At left, left to right: Goldberg; Richardson; HMS Dean Jeffrey S. Flier, MD; Bevin Kaplan, director of the foundation; Warren Alpert’s great-niece, and a member of the HMS Board of Fellows, Jim Bond; a multiple myeloma patient who benefited from the drug bortezomib; Adams; and Anderson gather following the evening’s program.

HMS students and residents at Boston’s Dimock Center, one of the community health clinics they’re partnering with to innovate and transform primary care teaching practices and delivery.
Virtual reality uncovers clues to decision making

What happens in the brain when we enter an unfamiliar place? How do we know how to get home from work? In short, what drives our most basic decisions? Chris Harvey, PhD, assistant professor in the Department of Neurobiology at HMS, is answering these questions, thanks to a $1.5 million grant from the New York Stem Cell Foundation (NYSCF).

Harvey’s research focuses on the neuronal circuit mechanisms that drive short-term memory and decision-making. Funding from NYSCF will support studies into how the brain integrates sensory information to reach a destination. “We’re essentially trying to figure out how the brain makes decisions,” Harvey says, adding that these processes are at the core of many neuropsychiatric diseases.

Using a mouse-model system and a virtual-reality environment, lab mice will navigate through virtual streets populated with different visual objects and, based on what they see, determine whether to turn left or right to get a reward. Harvey’s lab has developed microscopy methods to take photos and movies of brain activity in these mice as they make decisions. He hopes this work will identify which brain areas are necessary for navigation-based decisions and actually see how these choices are made in the brain.

With this model, Harvey is exploring a new avenue of research that has never been conducted before, which is precisely what made the project attractive to the NYSCF. The foundation is known for supporting early investigators who have started labs in the past five years and whose innovative ideas are potentially high risk, but could also carry a high reward. “These young investigators truly undertake the most daring yet rewarding stem cell research. We are all honored to support the future investigations,” says Susan L. Solomon, chief executive officer of NYSCF.

“They really promote the idea of taking a risk and going after big ideas, and the work we’re doing fits into that nicely,” says Harvey. “The grant allows us to start going after new ideas that haven’t yet been worked on.”

The NYSCF conducts translational stem cell research in its New York laboratory. Its mission is to accelerate cures for the major diseases of our time through stem cell and neuroscience research.

“It is such a pleasure to award the critical research undertaken by these young scientists that has the potential to completely revolutionize modern medicine,” said selection committee member Pete Coffey, DPhil, co-executive director of translation at UC Santa Barbara’s Center for Stem Cell Biology.

Navigating a virtual world in Harvey’s lab

With this model, Harvey is exploring a new avenue of research that has never been conducted before, which is precisely what made the project attractive to the NYSCF. The foundation is known for supporting

LUNCHEON CELEBRATES KANEB FELLOWS

Benefactors, beneficiaries, and faculty gathered for a luncheon in January to celebrate the 2012–2013 John and Virginia Kaneb Fellows. One of the most prestigious fellowships awarded at Harvard Medical School, the Kaneb Fellowship was established by John and Virginia Kaneb, members of the Harvard Medical School Board of Fellows and Systems Biology Advisory Council, to recognize junior faculty members with great promise in their fields.

In attendance were the 2012–2013 Kaneb Fellows, Samara Reck-Peterson, PhD, from the Department of Cell Biology, and Thomas G. Bernhardt, PhD, from the Department of Microbiology and Immunology; donors Virginia and John Kaneb; and distinguished members of Harvard Medical School’s faculty.

Above, left to right: Bernhardt, Virginia Kaneb, and Reck-Peterson celebrate following the luncheon.

WIMBERLY PROFESSORSHIP PROPELS RESEARCH ON AGING AND NEUROLOGICAL DISEASE

Kirk R. Daffner, MD ’84, chief of the Division of Cognitive and Behavioral Neurology and director of the Center for Brain/Mind Medicine at Brigham and Women’s Hospital (BWH), has been installed as the first incumbent of the J. David and Virginia Wimberly Professorship in Neurology at HMS. Established by J. David Wimberly—a generous philanthropic partner and advocate for neurodegenerative research across HMS—the professorship recognizes the stellar care his late wife received at BWH.

Daffner’s research focuses on the changes associated with normal aging and neurological diseases. By founding the Division of Cognitive and Behavioral Neurology at BWH, he built a world-class center to ensure that patients are diagnosed accurately and offered appropriate treatment strategies. Daffner’s work has spurred the development of clinical centers and research laboratories investigating memory, successful cognitive aging, and dementia.

Above, left to right: Martin A. Samuels, MD, chairman of the Department of Neurology at BWH and professor of neurology at HMS; Wimberly; Daffner; Dean Jeffrey S. Flier, MD, and Betsy Nabel, MD, president of BWH and Faulkner Hospital and professor of medicine at HMS, celebrate the Wimberly Professorship.
Lynch Foundation renews systems biology fellowship support

Since its inception in 2008, the Carolyn and Peter Lynch Fellowship in Systems Biology Fund at Harvard Medical School has been helping nurture graduate students as they pursue their research and education. Now, a generous $1 million gift from the Lynch Foundation extends this program, enabling more exceptional students to access this opportunity.

Both Peter and Carolyn have an extensive history with HMS. Peter is a long-serving member of the Board of Fellows, helped launch the Department of Systems Biology in 2003, and has chaired the Systems Biology Advisory Council, of which Carolyn is also a member, since 1997.

As staunch supporters of basic research, the Lynches believe firmly that the interdisciplinary approaches of systems biology—fusing the fields of biology, computer science, mathematics, physics, chemistry, and engineering—will propel new treatments for today’s most vexing diseases.

“The teams of people that are tackling these issues are essential. More importantly, what they learn is being shared globally. You don’t know how far these ripples will reach; where one missing link could lead to the eradication of a disease,” says Peter. “I lost both my parents and many other loved ones to cancer. This and other diseases, like diabetes, Alzheimer’s, and cardiovascular disease, are causing human sorrow around the world.”

To date, nine emerging scientists have been named Lynch Fellows. They have studied important biological issues, such as protein misfolding, a hallmark of neurodegenerative diseases such as Parkinson’s; the bacteria vital to regulating global greenhouse gases; and the evolution of a bacterium that infects the lungs of cystic fibrosis patients.

“We couldn’t be more pleased with the progress we’ve seen. The Fellows I’ve met are bright, enthusiastic, and curious. They’re just starting their careers and they’re working under the finest scientists in the world. I think they will have a great impact on science over the long term,” says Peter.

Carolyn couldn’t agree more.

“It’s been inspiring to see how these students have embraced the new direction of medical research,” she says. “They’re excited to collaborate. As with most issues you’re trying to solve, the aha moments come when you break down the silos.”

According to Marc Kirschner, PhD, chair of the Department of Systems Biology, the Lynch Foundation has recognized the importance of this crucial training period and the difficulty in obtaining adequate funds to support it. “Students are the heart of the developing field of systems biology, and we are lucky to have attracted some of the very best students from around the world to join our graduate program,” he says. “We are very grateful for this gift, which will have consequences for both current and future students in the program.”

Unrestricted bequest bridges the gap

Harvard Medical School received a $1.85 million bequest from the estate of Oliver Colvin for unrestricted use. Colvin, a resident of Cambridge, Mass., was born in 1927 in Seattle, Wash. He was a veteran of the Korean War, where he served in the Navy as Boat Wave Commander of Landing Craft that deposited soldiers and marines at Inchon on the Korean coast.

After completing his military service, he worked in defense contracting and engineering, eventually becoming chairman of Cargoaire Engineering Corp. Now, his unrestricted gift helps provide a bridge between revenue and the cost of running the School, allowing the Dean to direct funds where they are needed most.

“Unrestricted gifts like Oliver Colvin’s enable the School to make strategic investments in those areas that create the greatest impact,” says Richard G. Mills, JD, executive dean for administration. “With the help of gifts like these, Harvard Medical School can continue to cultivate the best doctors, researchers, and students who are changing the face of medicine.”

$1 million bequest advances schizophrenia research

A gift made through a will or trust is one of the simplest ways to leave a legacy at HMS. Barbara L. Wiget, who received a PhD in economics from Harvard in 1986, named the Medical School as a beneficiary of her estate. Upon her recent death, her $1 million bequest established the Barbara Lynn Wiget Endowed Research Fund to support the study of severe psychiatric disorders such as schizophrenia, with a special emphasis on the treatment of paranoid schizophrenia.

“Harvard Medical School has an amazing research community. Gifts such as this not only support our overall work to identify the causes of mental disorders, such as schizophrenia, but they also help us apply scientifically informed treatment to patients,” says William W. Chin, MD ’72, executive dean for research and the Bertarelli Professor of Translational Medical Science.
Grant deepens understanding of aging

Aging is a complicated process—physically, emotionally, and genomically. As Biomedical Informatics Research Associate Peter Kharchenko, PhD, puts it, aging underscores the human experience, from philosophical aspects to very pertinent health considerations.

With help from a $390,122 grant from the Ellison Medical Foundation (EMF) as a New Scholar in Aging, he hopes to better understand aging and how it impacts sensitive parts of the genome—those with mobile and repetitive elements—in cells that are responsible for maintenance and repair of tissues.

“Such elements are very abundant within our genomes, and if not properly maintained can cause a variety of problems,” says Kharchenko, who aims to examine a key aspect of cellular functions: the packaging of the genome, focusing on the maintenance of those repetitive elements during aging.

Kharchenko’s lab will conduct tests to characterize what happens within these critical cell types during the aging process and hopefully gain clues as to how some of the age-associated pathologies—such as arthritis, cancer, and type 2 diabetes—develop.

EMF’s New Scholar Awards provide support for newly independent investigators within the first three years following their postdoctoral training.

Kaplan invests in Farmer’s leadership and vision

Robert Kaplan knows a thing or two about what constitutes an effective leader. In his recent book, “What to Ask the Person in the Mirror: Critical Questions for Becoming a More Effective Leader and Reaching Your Potential,” the Harvard Business School professor of management practice and senior associate dean for external relations says that great leadership is about having the courage to ask critical questions.

When he met Kolokotrones University Professor Paul Farmer, MD ‘90, PhD ’90, chair of the Department of Global Health and Social Medicine at HMS, chief of the Division of Global Health Equity at Brigham and Women’s Hospital, and co-founder of Partners In Health, he saw a leader whose passion was contagious.

“Paul has a vision for what could be. He doesn’t get bogged down in the constraints and myriad reasons why things can’t be done—he finds a way,” says Kaplan.

Inspired by Farmer’s courage, passion, and enormous energy, Kaplan has given $1 million to support the Chair’s Fund in Global Health Delivery at HMS. This gift will support the department in advancing the understanding of both the burden of disease and the challenges of delivering services to prevent and treat unnecessary suffering.

“This gift will facilitate the integration of research and teaching to improve global health delivery, making an impact on the lives and health of poor people around the world,” says Farmer. “My entire team is grateful to Rob for giving his time, expertise, and resources to advance this critical work.”

Humbling Experience in Haiti

Kaplan was first introduced to Farmer in the fall of 2011, when he was asked to teach leadership classes to Farmer’s management teams in Boston and Haiti. Kaplan jumped at the chance to help because he was impressed with the incredible progress being made around the world by the Department of Global Health and Social Medicine.

Humbled by the experience, Kaplan says he now better understands the enormity of the challenge of improving health in Haiti and other under-developed countries. Facilities, lack of roads and other infrastructure, governmental obstacles, and the overall economic challenges make this effort incredibly difficult.

“Paul has built a team that shares his passion and dedication. They care about making changes, improving the lives of citizens, and finding ways to overcome obstacles and get the job done. If donors could see what I see, they would be blown away by the effort Paul and his colleagues are leading.”

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EMF’s New Scholar Awards provide support for newly independent investigators within the first three years following their postdoctoral training.
Abundance Foundation creates ‘agents of change’

Stephen Kahn, MD ’99, believes it is possible to change the face of global health in our lifetime. He established the Abundance Foundation to support a radically collaborative network of visionaries working together to improve global health through education, economic empowerment, and health systems strengthening.

The Abundance Foundation, and affiliated Abundance Funds, have supported numerous projects at Harvard Medical School over the past few years. Its most recent gift, totaling more than $1.3 million, creates two new funds: one to advance global mental health and another to inspire innovation among students dedicated to improving health care.

“The Abundance Foundation, together with Harvard Medical School, is imagining the possibilities of healthy and sustainable communities throughout the world,” says Kahn, an emergency medicine physician in Berkeley, Calif., and member of the HMS Advisory Councils on Education and Global Health.

Moral Imperative

Mental health problems pose a serious and widespread health burden, yet remain a neglected and under-resourced domain of global health, according to Giuseppe Raviola, MD ’01, MPH, director of the Program in Global Mental Health and Social Change at HMS, Psychiatry Quality Program at Boston Children’s Hospital, and Mental Health Program at Partners In Health. He and his colleagues have worked to support the development of safe, effective, and culturally sound systems of care in Haiti, Rwanda, and elsewhere, and have pushed for the inclusion of mental health in a comprehensive health agenda for the world’s poorest populations, calling it a moral imperative.

With a gift of nearly $1.1 million, the Abundance Fund for the Program in Global Mental Health and Social Change aims to offer a new model of teaching and service that will improve treatment, expand access to care, build human resource capacity, and raise awareness of the global burden of mental health.

“The generosity and vision of Dr. Kahn and the Abundance Foundation is critical in helping us link education, research, and service delivery to turn the dial on this neglected issue, globally and in the U.S.,” says Raviola.

Student Leadership

With a gift of $228,000, the Abundance Agents of Change Fund instills leadership in and nurtures the skills of HMS students through a series of challenge grants that catalyze creativity and collaboration. In fact, the program requires medical students to team up with students from other Harvard graduate schools to develop out-of-the-box solutions to the health care system crisis. According to Andrew Ellner, MD ’04, director of the Program in Global Primary Care and Social Change at HMS, co-director of the HMS Center for Primary Care, and an associate physician in the Division of Global Health Equity at Brigham and Women’s Hospital, the architects of this grants program are the members of the Center for Primary Care Student Leadership Committee.

“Students are deeply insightful about the redesign of health care delivery and education, and committed to the reinvention and transformation of primary care,” says Ellner. “These future leaders are the extraordinarily capable engineers of this program, from developing the vision to crafting the request for proposals to creating a new curriculum focused on entrepreneurship, community health, and health care innovation.”
HHMI fellowship gives students real-world research experience

The Howard Hughes Medical Institute (HHMI) has committed $546,000 to support eight Medical Research Fellows at HMS. This prestigious program pairs medical students with faculty members and gives them the opportunity to delve deeply into scientific questions in the research lab.

“HHMI is one of the leading funders of research in the country, and one of their most meaningful contributions is the medical student research fellowship,” says Gordon Strewler, MD, professor of medicine at HMS, master of the Cannon Society, and the Harvard representative for HHMI. “This program has supported the endeavors of a great many students at Harvard over the years.”

The program allows each fellow to work on a year-long, intensive, full-time research project with a basic biomedical scientist of their choice. About a dozen third-year HMS students are selected yearly on the basis of their scientific proposals. In addition to the research opportunity, fellows attend symposia sponsored by HHMI, where they can present their original research and network with prominent scientists.

“Many fellowship programs give monetary support, but few provide these enrichment experiences,” says David Blauvelt, MD ’15, a 2012–2013 HHMI Fellow. “I want to take advantage of everything thrown my way.”

Blauvelt is using light to study the physiology of blood vessels with the goal of generating high-resolution, 3-dimensional images of vasculature. He hopes to color code individual vessels by their velocity, with the intent that this technology will be used to study vascular diseases and particularly tumor angiogenesis. As a Boston regional co-chair, he is also involved in recruiting prominent scientists to speak about their work at HHMI dinners.

“A year spent focused on research has been transformative for many fellows, and shaped their interest and determination to become physician-scientists,” says Sean B. Carroll, HHMI’s vice president for science education.

Blauvelt couldn’t agree more. Although his goals as a fellow include presenting at major national and international conferences, meeting with investigators, and publishing his work, he says he just wants to enjoy being immersed in science for a year.

Charitable trust supports students committed to equal rights and HIV/AIDS

Laird Patterson, MD ’68, describes her time at Harvard Medical School as the high point of her academic career. She’s hoping to return to the Quad this spring to reminisce with her classmates at their 45th Reunion.

To mark this milestone, and in response to the increasing cost of medical education, she has established the Dr. James F. Holloran Jr. Memorial Scholarship Fund with a $250,000 charitable remainder unitrust (CRUT). The fund honors her medical school classmate who died of AIDS in 1986.

This gift supports students who have demonstrated a commitment to advancing equal rights for lesbian, gay, bisexual, or transgender people and/or who have dedicated time to researching or treating HIV/AIDS. Patterson had planned originally to set up this fund with a bequest, but was swayed by the benefits of a CRUT, which pays her income quarterly and offers a charitable deduction.

“I get to invest in something I believe in, Harvard will ultimately get more money, and I receive income payments now that I’m retired,” says Patterson, who also set up a second CRUT to benefit both HMS and her undergraduate college, University of Kansas.

“I marvel at medical students today,” she says. “But for some people, the cost of medical education is just out of reach. I’m privileged to help them while promoting inclusion—the world will benefit from it.”
Paul family supports the best and brightest

Larry Paul, MD ’90, remembers his Harvard Medical School experience as a time of great friendships, maturation, and intellectual challenge—not to mention some sleepless nights. It was also a crossroads in his life, as he weighed the merits and challenges of a career in cardiothoracic surgery against a future in business. Though he followed his gut into the business world, Paul says he still enjoys the practice of medicine and has applied that knowledge beyond directly caring for patients. He has remained closely connected to the School, giving his time and talents as a member of the Board of Fellows, Campaign Steering Committee, co-chair of the Advisory Council on Education, and as a member of the Dean’s Council, HMS’s leadership annual giving society. Now, he and his wife, Kathleen, have endowed a scholarship fund to help ensure the best and brightest students continue to choose HMS.

“Harvard Medical School is a collection of the smartest and most driven individuals who have the greatest opportunity to make a game-changing impact on the world,” says Paul, a co-founder and managing principal of Laurel Crown Partners, LLC, a private equity firm in Los Angeles, Calif. “I am passionate about supporting these individuals because they will be the ones who improve the quality of life for all of us.”

Dean for Medical Education Jules Dienstag, MD, agreed with Paul about the changing economics of the practice of medicine, including student indebtedness. “Philanthropists like Larry and Kathleen Paul are making a tangible difference for our students, whose ability to choose HMS and to select a career path after medical school is constrained by the specter of crushing debt.”

“More people die of MRSA infections in U.S. hospitals than of HIV/AIDS and tuberculosis combined,” Pang says. She hopes her comprehensive genetic analysis of its bacterial cell wall will fuel future antibiotic discovery.

Mandell is a genetics research fellow who is developing protein-based in vivo biosensors to help understand small molecule activity in normal and diseased cells. “This fellowship has provided me with resources that accelerate my research,” Mandell says. “I’ve also been connected to the broader LSRF Fellows community—passionate scientists eager to share ideas across a diversity of disciplines within the life sciences.”

Pang adds, “Being a HHMI LSRF fellow not only provides financial support, but it also gives me confidence that my work means something to society. I hope this project opens up new areas of investigation for me in the future.”

Rami Burstein, PhD, director of pain research and vice-chairman for research affairs in the Department of Anaesthesia at Beth Israel Deaconess Medical Center (BIDMC), has been named the inaugural incumbent of the John Hedley-Whyte Professorship in Anaesthesia. Burstein’s work in migraine treatment has helped better predict which therapies will elicit responses in patients and explain phenomena, such as photophobia, in migraine sufferers.

The professorship was established through the generosity of Beth Israel Deaconess Medical Center, its Anaesthesia Foundation, and friends and colleagues of the professorship’s namesake, John Hedley-Whyte, MD, the David S. Sheridan Professor of Anaesthesia and Respiratory Therapy at BIDMC. A pioneer in modern respiratory physiology, Hedley-Whyte’s relationship with Harvard Medical School began in 1961 and has spanned more than 50 years.

Above, left to right: Hedley-Whyte; Burstein; Brett Simon, MD, PhD, Edward Lowenstein Professor of Anaesthesia and head of the Department of Anaesthesia and Critical Care at BIDMC; and Kevin Tabb, MD, BIDMC president and CEO, celebrate the professorship and two remarkable careers.
Researchers tackle perplexing issues with Burroughs Wellcome Fund grants

Stem cells and solar energy are two hot-button topics that are prime for scientific exploration. The Burroughs Wellcome Fund (BWF) understands that tackling these types of issues requires investigators trained in diverse areas, such as chemistry, physics, applied mathematics, computer science, and engineering.

To support these cross-trained scientists, the BWF developed the Career Awards at the Scientific Interface, providing $500,000 over five years to support researchers as they complete their postdoctoral training and transition to faculty positions.

“While supporting biomedical research, it has become clear to us that biologists need to interact with physical scientists, mathematicians, and engineers to combine the latest techniques with the insights of those outside biology to answer the most difficult problems of our time,” says BWF President John Birris. “This program provides an opportunity for postdoctoral fellows from the world of the physical and mathematical sciences to bring their insights to bear on perplexing biological problems.”

Among the 2012 recipients of this award are two such Harvard Medical School research fellows, Buz Barstow, PhD, and Allon Klein, PhD, both from the Department of Systems Biology.

A physicist, Barstow’s work focuses on solar energy capture, which he says has the potential to power the world permanently. “The problem is capturing, storing, and transmitting all of that energy,” Barstow says. He is using synthetic biology and physics to increase the efficiency of photosynthesis.

Klein will be leveraging his grant to explore how stem cells choose between alternative fates in developing and adult tissues, using tools from stochastic physics and focusing primarily on cell lineage-tracing experiments to reconstruct the decisions made by individual cells. By developing methods for single-cell expression profiling, he hopes to understand the origins of random fate choices.

“We would ultimately like to understand how stem cell choice might be tuned in tissues—a question of practical interest that touches on fundamental aspects of biology,” says Klein, who will also use the grant to establish an independent lab.

“The Burroughs Wellcome Fund not only provides funding, it also takes an active interest in assisting its awardees with advice and guidance. It’s a great community to be joining,” Klein says.

Spurgeon Fund punctuates legacy of giving back

Public service is in the Spurgeon family’s genes. The oldest of eight children born to a country physician in rural, southeastern Missouri, Dorsett Spurgeon labored on the family farm while attending the University of Missouri. After transferring to Harvard Medical School, where he graduated in 1929, he completed his residencies and training as a general surgeon, obstetrician, and family physician in Boston and moved to Newton, N.J., to start his practice. Though he never intended to stay long-term, those plans changed when he met and married Mary Dutcher.

Born and raised in Newton, Mary was well-educated and helped her husband manage his highly respected medical practice. They became beloved leaders and pillars of their community, from Dorsett serving as the first chief of surgery and chief of staff at Newton Memorial Hospital and co-founding the United Way in Sussex County, to Mary serving on the city’s school board, town council, and being elected its first female mayor.

“Our parents were hard-working, committed to serving others, and devoted to their family and community,” says Edward (Ned) Spurgeon, one of the couple’s three children. “Their influence by example has impacted our entire family.”

That commitment to giving back led the couple to establish an estate plan that, upon their deaths in 1995, created a charitable trust supporting organizations close to their hearts, including Harvard Medical School. When the trust was terminated recently, $201,000 was given to HMS to establish the Dorsett L. Spurgeon and Mary Dutcher Spurgeon Fund, which advances the basic research of a promising postdoctoral fellow or junior faculty member each year.

“Support for extraordinary researchers in the basic sciences is critical,” says Ned Spurgeon. “Through this fund, outstanding young researchers are encouraged and supported, and their work helps the broader community, now and in the future, as our parents intended.”

Funding from the BWF will allow him to explore electrosynthesis, which combines the efficiency of solar panels with the flexibility of using bacteria that can absorb electricity, and to attempt to make hydrogen directly from sunlight using enzymes called hydrogenases.

Richard Paul Cambria, MD, professor of surgery at Harvard Medical School, chief of the Division of Vascular and Endovascular Surgery at Massachusetts General Hospital (MGH), and a nationally and internationally recognized expert in the treatment of complex aortic aneurysm disease, is the inaugural incumbent of the Robert R. Linton, MD, Professorship in Surgery in the Field of Vascular and Endovascular Surgery.

The professorship was established in honor of Robert Linton, MD ’25, the first vascular surgeon at MGH. A recognized leader in his field, Linton contributed immensely to the development of reconstructive vascular surgery and the evolution of vascular surgery as a distinct surgical specialty.

Above: Cambria addresses guests during the professorship celebration.
Members of Harvard Medical School’s Dean’s Council were honored for their philanthropic support during the annual National Dean’s Council Celebration. Headlining the evening’s program was Margaret A. Hamburg, MD ’83, commissioner of the Food and Drug Administration, who addressed guests on “Leveraging Science in the Service of Society.”

“We’ve made a decision to invest in experts who can develop and implement global solutions to important health care issues,” explains HOV Executive Director Susan Levine.

The fund supports faculty members in the Department of Health Care Policy, such as David Stevenson, PhD, an associate professor of health policy who is investigating how different market characteristics and new reforms will affect access and quality of care that Medicare beneficiaries receive at the end of life.

Stevenson says, “Like the health care system as a whole, end-of-life care in the U.S. is currently at a crossroads. HOV’s gift facilitates world-class research, helps build a foundation that the department needs to carry out its work, and leverages other important projects that will shape the direction of health care in this country.”

As a member of HMS’s Health Care Policy Advisory Council, Levine couldn’t agree more. “I’ve witnessed firsthand the expertise of the people around the table at Harvard—their intelligent idealism will ultimately lead to a better system for everyone,” she says.

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**Hospice of the Valley invests in policy solutions**

As the largest non-profit hospice in the nation, Hospice of the Valley (HOV) is known for bringing comfort, dignity, and tranquility to patients in the Phoenix, Ariz., area. HOV is equally devoted to transforming end-of-life care on a broader scale and recently committed $350,000 to create the Hospice of the Valley Fund for Improving Health Care Markets at HMS.

The National Dean’s Council Celebration is one of the many ways HMS recognizes and honors its generous, loyal supporters. Learn more at hms.harvard.edu/deanscouncil.

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**CHATILA NAMED BUNNING PROFESSOR OF ALLERGY AND IMMUNOLOGY**

Talal A. Chatila, MD, professor of pediatrics at Harvard Medical School and a senior physician in the Division of Allergy and Immunology at Boston Children’s Hospital, has been named the first incumbent of the Denise and David Bunning Professorship in Pediatrics in the Field of Allergy and Immunology.

Established through the generosity of Denise and David Bunning, the professorship is an example of the Bunnings’ personal commitment to improving the lives of those affected by severe food allergies and to finding improved therapies and cures for children everywhere.

Chatila’s recent studies have focused on the mechanisms by which immunological tolerance fails in allergic diseases, such as food allergies, and the means for re-establishing tolerance in these disorders.

Above, left to right: Nancy J. Tarbell, MD, dean for academic and clinical affairs at HMS, celebrates the professorship with Denise and David Bunning.

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**HERE CURIOSITY IS KING**

Breakthroughs happen every day at Harvard Medical School. From interrogating the genome to unlocking insights of the immune system, it takes place here in the New Research Building (NRB).

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Visit hms.harvard.edu/nrb to learn more and view a photo slideshow. Or contact Maureen McNally in confidence at 617-384-8521.

LEFT TO RIGHT: MODERATED BY SANJAY GUPTA, MD, CHIEF MEDICAL CORRESPONDENT FOR CNN AND MEMBER OF THE HMS BOARD OF FELLOWS, THE EVENT FEATURED RUSSELL PHILLIPS, MD, DIRECTOR OF THE HMS CENTER FOR PRIMARY CARE AND PROFESSOR OF MEDICINE AT HMS, AND ANDREW ELLNER, MD ’04, CO-DIRECTOR OF THE HMS CENTER FOR PRIMARY CARE AND ASSOCIATE PHYSICIAN IN THE DIVISION OF GLOBAL HEALTH EQUTY AT BRIGHAM AND WOMEN’S HOSPITAL.

DESIGNED TO ADDRESS NATIONAL ISSUES, THE HMS CONVERSATIONS SERIES GIVES INVITED GUESTS A FRONT-ROW SEAT FOR AN IN-DEPTH DISCUSSION WITH THE Distinguished Harvard faculty who are driving the revolution in science and medicine.

JOIN US CALENDAR OF EVENTS

March 19, April 2 & 23
Longwood Seminars at Hms
It’s time again for Harvard Medical School’s mini-med school classes, held in the New Research Building Tuesdays from 6–7:30 p.m. This free seminar series is geared toward the general public and features faculty from HMS and its affiliate hospitals presenting on topics ranging from demystifying nutrition and uncovering the power of sleep to building better brains and exploring the connection between personal beliefs and physical health.

View the lineup, add your name to the waiting list, and stream the sessions live at http://hms.harvard.edu/minimedschool. A limited number of priority reserved seats are available to members of the Dean’s Council, HMS’s leadership annual giving society, by emailing giving@hms.harvard.edu.

April 30
Alumni Reception in Washington, D.C.
HMS alumni and their guests are invited to a reception at the Columbia Country Club in Chevy Chase, Md., from 5:30–7:30 p.m. Michael Chernew, PhD, professor in the Department of Health Care Policy at Harvard Medical School, will discuss the impact of the Affordable Care Act on the future of medical practice and research. For more information or to register, contact Meredith Tremblay at 617-384-8520 or hmsalum@hms.harvard.edu.

May 1–2
Dunham Lecture Series
Join us for the 2013 Edward K. Dunham Lectureship for the Promotion of Medical Sciences, which runs from 11 a.m.–noon Wednesday, May 1, and 4–5 p.m. Thursday, May 2. Established in 1923 in memory of Dr. Dunham, this year’s lectures will be given by Thomas M. Jessell, PhD, Claire Tow Professor in the Department of Neuroscience and Department of Biochemistry and Biophysics at Columbia University. Learn more at http://bit.ly/dunham-lecture.

May 30–31
Reunion & Alumni Week
Reconnect, Rediscover, Reunion: Save the date and make plans to attend Reunion 2013. This year we celebrate classes ending in 3s and 8s. More than 500 alumni and friends will return to campus for the festivities, including a gala, class-specific activities, symposia from faculty and alumni, the Dean’s State of the School Address, tours, and much more. All alumni are invited to return to the Quad for many of the activities. Members of the Society of the Silver Stethoscope, which represents HMS alumni who have celebrated their 60th Reunion, are invited to attend a special dinner on Thursday, May 30.

Visit http://alumni.hms.harvard.edu/reunion and http://alumni.hms.harvard.edu/alumniweek for more information or contact Anne Koza at 617-384-8520 or hmsalum@hms.harvard.edu.

View all upcoming HMS events at http://hms.harvard.edu/calendar. Can’t join us in person? Download our Harvard Medical Labcasts at http://hms.harvard.edu/podcasts or visit the HMS YouTube Channel.