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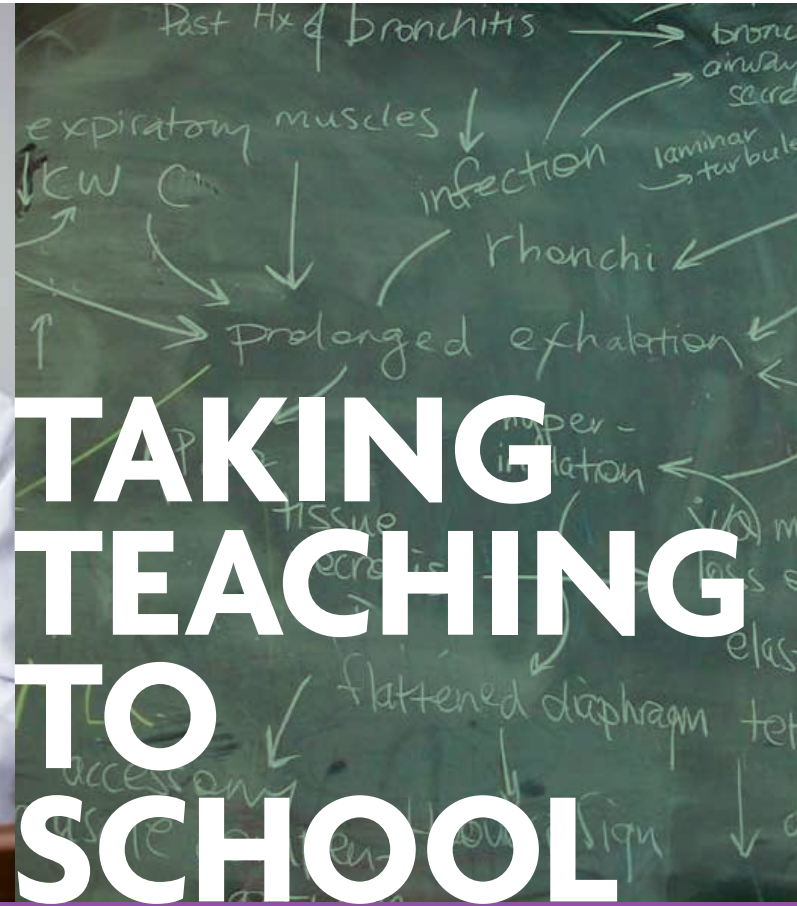
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TAKING TEACHING TO SCHOOL

RICHARD SCHWARTZSTEIN, M.D.

To give a clearer picture of the traditional approach to medical teaching, Richard Schwartzstein, M.D., not uncharacteristically, relies on a trusty anecdote. Imagine the first day of school for your first child, says the vice president for education at Beth Israel Deaconess Medical Center, and you ask the teacher to give you a little bit of background on her professional experience. She responds, he continues, that she's had absolutely no training as a teacher, but that she did really well in kindergarten and thinks she could do a good job teaching your child. "Most people laugh when I say that," notes Schwartzstein, "but what would you do? You'd get out of there as fast as you could and find some other school and enroll your kid. But that's what medical education historically has been: I graduated medical school,

I did pretty well, and so now I can teach—and that's been the assumption for centuries."

Challenging assumptions is at the heart of the revolutionary tack Schwartzstein is taking to improve how medicine is taught and learned, from espousing the value of nurturing physicians' academic expertise to teaching students and residents to be more analytical and less rote in how they think. A pulmonologist who became increasingly immersed in and passionate about medical education over his three-decade-long career at BIDMC, Schwartzstein firmly believes that great teachers—and great doctors—are made, not born. "It's about learning the science as well as the art of education," he says.

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TAKING TEACHING TO SCHOOL

▲ Schwartzstein tries to get his students to think critically.

RICHARD SCHWARTZSTEIN, M.D.

CONTINUED FROM P. 1

“We take the Hippocratic Oath and embedded within that is the sense that you will give back and carry on the tradition of teaching those who will come after you, but the reality is that you won’t do that well unless you actually understand what you are doing and get some formal training.”

Formalizing educational leadership and innovation as an institutional priority is something that makes BIDMC noteworthy, if not unique, according to Schwartzstein. In 2004, as part of its strategic planning process, the BIDMC Board of Directors and senior leadership took the radical step of creating a Center for Education and the role of vice president for education, a post Schwartzstein now holds. Often imitated but never duplicated, the Center acts as a hub for undergraduate and graduate medical education and education research within the Carl J. Shapiro Institute for Education and Research, which also

focuses on academic priorities like professional development and educational technologies. “What BIDMC is trying to do is raise the standard for our teachers,” notes Schwartzstein, who is also executive director of the Institute, “and say there is a science to education and to the way people learn and to the way you build enduring learning.”

Raising educational standards comes at a cost, however—a cost not nearly covered by the Center’s resources. Schwartzstein constantly struggles with maintaining the Center’s national reputation for excellence and the drive for building innovative academic programs with a budget that is only a tenth of one percent of the overall budget of the hospital. “Lay people don’t understand that this isn’t really paid for,” he says. “Yes, there are monies that come in from Medicare and Harvard Medical School for teaching, but it’s less than what you

pay your plumber to come to your house to clean your drains out. Seriously. So basically we donate our time, we take from our clinical revenues to keep the status quo. But to have an infrastructure like we have here at BIDMC costs money—and that is why giving matters because to really do this well makes a difference.”

Fortunately, says Schwartzstein, there are donors who recognize the importance of ensuring that the next resident who cares for you in the middle of the night or the young doctor who takes over for your retiring primary care physician be the best and the brightest. Donors like Stephen Kay, who gave \$500,000 to sustain the renowned Rabkin Fellowship in Medical Education, which was created in 1998 to develop faculty careers in medical education (Schwartzstein is an alumnus of the program). Or Margaret McKenna,

whose recent \$100,000 gift toward a research fellowship is advancing ways to evaluate scientifically the effectiveness of educational efforts.

Perhaps most importantly, this kind of philanthropic support allows the Center to thoughtfully shape and grow its programs, from the well-established Rabkin Fellowship to a new project to improve communication with families in the intensive care unit (ICU). The Center's goal is to continually imbue its efforts with novel teaching concepts and technological advances, all with the aim of validating these methodologies with research. Schwartzstein himself is a microcosm for this model of constant improvement. "Every year, I make changes in my courses. Every year, I try something different in my own teaching," he reflects, noting that he still teaches first-year physiology. "If something works, why does it work? If something else doesn't work, let's understand why and try to build on that."

This type of self-reflection and relentless questioning is a critical element of what Schwartzstein

is trying to instill in both students, who are learning how to learn, and faculty, who are learning how to teach. He believes the future of medical education will center on a concept called "critical thinking," which means approaching problems with deliberation and curiosity and dramatically less emphasis on memorization and pattern recognition. "The data show that with many medical errors, it's not because you didn't know the facts, it's because you can't put the picture together and access those facts to point you in the right direction," says Schwartzstein. "You're not making the right decisions; you're not thinking about the problem in the right way. And to me this is one of the greatest challenges that we confront as teachers."

Understanding and shaping the way clinicians think. Teaching compassion, empathy, and professionalism in concert with the acquisition of medical content. Incorporating technology to make training more efficient, effective, and safe. All on

"What BIDMC is trying to do is raise the standard for our teachers and say there is a science to education and to the way people learn and to the way you build enduring learning."

a shoe-string budget. It would seem that Schwartzstein has his work cut out for him. But he is quick to point out that his arsenal of anecdotes and data only grows larger and his self-consciousness only diminishes as he gets older, making his job both easier and more rewarding. "I have a busy life as you might imagine," he says, "and people are always saying give up this, give up that. Stop doing the course, don't do ICU work

anymore. But for me, it's fun to continue to do all that and it gives me credibility, which I think is important. And when you watch the light bulb go on over somebody's head when they get a difficult concept, it's that sense of accomplishment that, to me, is what it's all about." ●

The Campaign for Wellness

Bowdoin Street Health Center is Fundraising for its New Expansion



▲ Hernan Delgado, M.D., (background) helps one of Bowdoin Street's 11,000 patients get well.

In a time of unequal access to health care, Bowdoin Street Health Center is trying to even the playing field. The BIDMC-affiliated organization is not only dedicated to providing health care to more than 11,000 patients in the low-income neighborhood of Dorchester, but it is also committed to creating an

environment where people can get healthy and stay healthy through a variety of nutritional and social support programs.

In response to current space constraints and growing needs within the community, plans are in motion for building the Wellness Center—a 4,000-foot expansion of the Bowdoin

Street facility. "The Wellness Center will be the culmination of a lot of our community work and provide a long-term, concrete place and opportunity for people to be safe and get healthy," says Adela Margules, the health center's director. The design and construction plans for the third-floor space are complete, and fundraising is underway for the \$3.1 million project.

Social and economic inequities are at the root of many of the chronic health problems identified at Bowdoin Street. "If we as a hospital, a health center, and a donor community do something to radically change that, we will make a huge difference that will have implications for years to come for people in our neighborhood," Margules says. Currently, the lack of recreation areas and fear of violence in the neighborhoods limit regular outdoor exercise, and the lack of fresh food and supermarkets

nearby contribute to diabetes, hypertension, heart disease, and obesity in children. Also, overwhelming struggles with poverty and widespread violence lead to mental health issues.

The Wellness Center aims to fill those gaps. The new space will feature a large exercise room, a gym with workout equipment, and a physical therapy and treatment room as well as a demonstration kitchen for healthy cooking classes aimed at both children and adults. It also will include an expanded behavioral health and family support services wing, which will house eight new offices to provide counseling and support to individuals, families, and groups.

For more information or to donate to Bowdoin Street Health Center and its Wellness Center, contact Heather Clark at heather.clark@bidmc.harvard.edu or (617) 754-0067. ●



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LETTER FROM THE SENIOR VICE PRESIDENT OF DEVELOPMENT

Dear Readers,

It goes without saying that you should try to learn something new every day. In health care, continuous education of young physicians, experienced physicians, and even patients can undoubtedly have an impact on care. At BIDMC, education is a priority for the well-being of our visitors and the excellence of our organization. It is a valuable piece of the puzzle that, without creative funding, might not exist.

In this issue of *Giving Matters*, Richard Schwartzstein, M.D., vice president for education at BIDMC, encourages innovative and critical thinking from both faculty and students (see cover story). A team from the Department of Human Resources' Organizational Development unit, with leadership from Kenneth Sands, M.D., M.P.H., senior vice president of health care quality, has developed a program to increase the knowledge base of early-career physician leaders so that they will learn the specific skills necessary to successfully grow into the next phase of their careers (page 16). Chief information officer John Halamka, M.D., is changing the way medical information is collected through the use of electronic health record technology and other efficient innovations (page 14). Each of these programs benefits our patients and staff.

At this time of transformational change in health care, unrestricted gifts allow us to support other critical programs and initiatives without compromising excellence. With generous support from our donors, we already reached our \$7 million unrestricted goal for this year. Given the strategic importance of this financial support, we have raised the bar with a new goal of \$9 million for fiscal year 2011. We are grateful for this support.

Sincerely,

Kristine C. Laping



Grateful Nation Makes It Easy for People to Share and Express Their Gratitude.

While this expression can take many forms, one of our favorites is receiving grateful letters from the Nation. We are pleased to share some of these letters with you in the hope that one thanks will lead to another and we'll create an unending cycle of gratitude.

Want to share your gratitude too?

E-mail us at gratefulnation@bidmc.harvard.edu or visit www.gratefulnation.org/lettersfromthenation.

Dear Dr. [William] DeWolf,

In May 2009, you removed my kidney. We are extremely thankful for your expertise and kindness and for the wonderful care I received from everyone at the hospital. We wanted to make a donation with the hope that your research will enable others to be as fortunate as I have been so far. Thank you again.

Sincerely,

Marge N.

Dr. Amy Evenson and her medical team performed a true miracle when they saved the life of our son, Lou. Lou had been hemorrhaging from his rejected transplanted pancreas and was near death. Dr. Evenson's quick thinking and surgical skills were remarkable! We would like to make a contribution to the Transplant Fund at BIDMC in honor of Dr. Evenson.

Sincerely,

Lynne and Donald S.

In celebration of the joy that our very special faculty member, Jean Keefe, an ovarian cancer survivor, brings to us every day, we have made a donation to Beth Israel Deaconess Medical Center. Thank you for the wonderful work you do to help people like Jean continue to bring sunshine into our lives and to find a cure for this disease.

Sincerely,

Melrose Veterans Memorial Middle School Faculty and Staff

Our daughter who is a college student contacted Dr. [Megan] Anderson with a request that she shadow her for a day in order to learn more about the medical field. Dr. Anderson granted her request, and our daughter enjoyed the invaluable experience of spending a day with her in surgery. To express our gratitude to Dr. Anderson, we have made a donation to BIDMC's Annual Fund.

Warm regards,

Mr. and Mrs. S.



LEADERSHIP SPOTLIGHT

Matt Epstein: From the Outside Looking Forward

Matt Epstein had not spent much time inside a hospital when he agreed to serve on the Community Benefits Committee at Beth Israel Deaconess Medical Center seven years ago.

But after shadowing a team of nurses and taking a tour of Bowdoin Street Health Center, the commercial real estate lawyer realized just how much work goes into running a world-class medical organization and the importance of quality care at the various community health centers.

“It has been an eye-opener,” Epstein says. “It is mindboggling how complicated the clinicians’ and nurses’ work is and the number of decisions they have to make. I have gained a lot of respect for how difficult it is to run a hospital and provide quality care. I look forward to going to the hospital for meetings. It’s fun to be out of your element a little bit because you learn more. You don’t get staid and complacent.”

Now chair of the Community Benefits Committee and member of the Board of Trustees and the Patient Care Assessment and Quality Committee, Epstein is focused on improving the quality of patient care and ensuring equitable treatment for all individuals across the medical center and the community health centers affiliated with BIDMC. “I like to think of lay leaders as constructive institutional irritants,” he says. “I think one of the functions of the lay board is to keep asking the questions that have to be asked, even if we don’t know the answers.”

Epstein has a family connection to BIDMC through his father-in-law, Howard H. Hiatt, a former chief of medicine at Beth Israel Hospital. However, it was at the suggestion of his law partner, Alan Rottenberg, a former chair of the Board of Directors, that he originally became involved in 2004, joining a lineage of Goulston & Storrs lawyers who have served on boards at BIDMC for the last 50 years. “I liked the mission of the hospital,” he notes. “The original reason the hospital was founded is because a lot of people were not able to get care at the other hospitals. The idea of serving the community is critical to the hospital’s mission.”

Joining the Community Benefits Committee, which is focused on BIDMC’s relationships with its affiliated community health centers as well as equitable care issues

within the hospital, interested him for personal reasons. “The equitable care side deals with minorities and issues of cultural competence at the hospital—whether minorities and people of color are treated appropriately,” he says, acknowledging that since adopting his two children, Eric, 20, and Andrea, 17, who are of mixed race, he is much more attuned to issues regarding race.

“As a lawyer you represent your client,” says Epstein. “What’s exciting for me at the hospital is the personal involvement with the hospital’s mission. You’re working on what you believe, rather than taking on someone else’s issues.” His passion for the cause, sense of humor, and curiosity about medicine and health care economics are a perfect fit to lead the Community Benefits Committee in this time of health care reform.

Epstein—along with Eric Buehrens, interim president and CEO at BIDMC, and Stanley Lewis, M.D., BIDMC’s senior vice president for network integration—have met with the executive directors and medical directors of several of the hospital’s affiliated community health centers to identify key issues and develop a strategy going forward in the new health care landscape. “The community health centers are on the front lines,” says Epstein. “The hospital is focusing on how we can strengthen our ties with them and work together to figure out this changing environment. I’m really fortunate to be working with BIDMC’s director of community benefits, Ediss Gandelman, at the hospital to try to understand the health centers’ new role. It would be wonderful if we could do it together and see how we can help each other. That would be totally consistent with the hospital’s original reason for existing.”

Epstein believes that to improve the quality of care at the medical center and its affiliated community health centers, clinicians should be recognized—and paid—for quality care rather than quantity of care—a major focus of the new health care reform. “It’s going to be slow. It’s such a big shift. It’s such a total change,” he says. “We are all in this together in terms of improving health outcomes.”

“I don’t know my liver from my kidney,” says BIDMC trustee Matt Epstein. “But I know what I don’t know. I think that there are benefits to having someone from the outside looking in at how an institution runs with a fresh eye. It’s a little bit like a consultant who is new to an industry, but who can think a little creatively and notice anomalies and systems that aren’t working.”

Secrets of Small Sequences

\$1.04M Foundation Award Supports Work to Explore Mitochondrial DNA's Role in Aging

Sometimes little things can mean a lot. Indeed, many modern theories about the process of human aging center around the tiny pieces of genetic material housed in the mitochondria of our cells. Although the mitochondrion, the power plant of the cell, has a much shorter genome than that of the cell's control center, the nucleus, the human body's indifference for repairing or protecting this genetic material from damage may have negative consequences over time. "Even though mitochondrial DNA is small, because the accumulation of mutations there are so aggressive, its importance to aging may be far more than negligible compared to that of the nuclear genome," says BIDMC investigator Konstantin Khrapko, Ph.D.

But while many experts believe mitochondrial mutations are critical to understanding aging, just determining how pervasive they are can be incredibly complex. Estimates for measuring these mutations can differ by three orders of magnitude. "Even if we refer to the same tissue, the same place, the same age, researchers come to very different answers,"

notes Khrapko. "It's very difficult to test this hypothesis in this situation. So that's the main focus of our work, which is to try to figure out what's actually happening."

With a recent \$1.04 million award from the Ellison Medical Foundation, Khrapko's lab is building on his work of the past 15 years to better evaluate and understand mutations in the mitochondrial genome. "Nature is reluctant to reveal its secrets, but we're trying to get at them," he notes. Using a specially modified version of the "new generation" technology in gene sequencing, his team, which includes fellow Yevgenya Kravtsov, M.D., and research assistant Igor Dombrovsky, is examining mitochondrial DNA from specific areas of the brain thought to be important in aging—like the substantia nigra, which is known to play a role in diseases like Parkinson's. They are also sequencing the mitochondrial genomes of long-lived animals, like the naked mole rat and the bowhead whale, to determine how differences in these genes may be related to longevity.

Khrapko hopes that their work will provide a foundation of understanding for other scientists who are exploring how to manipulate the



▲ Konstantin Khrapko, Ph.D., is trying to open the door to aging's secrets.

mitochondrial genome in an effort to ultimately treat patients. "It's good to know your enemy. You need to know what's the problem so you don't make false moves," he says, adding that he is particularly grateful to the Ellison Medical Foundation for having faith in his work and for giving him the freedom to pursue promising new leads.

Khrapko hopes that the foundation's foresighted approach to funding aging research is something that will catch on. "The problem with research in aging is that the subject is not very well defined and thus it is somewhat more difficult to get funded," he says. "But I hope people will come to appreciate the need for understanding the whole complex biological process of aging, the corresponding health problems that old people face, and how they all come together." ●



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Faces of BIDMC

with Robert Stickgold, Ph.D.



ROBERT STICKGOLD, PH.D.
Director, BIDMC Center for Sleep
and Cognition

Funding research on the connection between sleep and memory has become increasingly critical because of its potential impact on a range of psychological and neurological disorders. With an almost \$300,000 grant from Autism Speaks, Stickgold is exploring the effects of sleep disturbances in patients with autism spectrum disorder, a range of psychological conditions characterized by abnormal communication and social interaction.

What is the primary focus of your research?

I study how sleep processes memories. We look at sleep and dreaming, and the roles that each of them play in what we call off-line memory processing, which is everything that happens between the time you form a memory and when you later try to recall or use it.

What do we know about the value of sleep in processing memories?

It's now pretty clear that sleep can strengthen a wide variety of types of memories. Sleep can stabilize memories so they don't degrade as quickly. Sleep can integrate memories into networks with other related memories so you have a better sense of what goes with what. Sleep can also extract patterns from large bodies of information and even discover insights into what a pattern might mean.

How might this concept of memory processing apply to children with autism spectrum disorder?

Figuring out rules, extracting insights, and getting the big picture are things that autism spectrum disorder patients have a horrible time with. They also have notoriously poor sleep. We don't know in these children—who have lots of cognitive, emotional, and learning problems—whether those sleep problems are a major contributor to their problems processing information. Studies like ours become important because they raise, and potentially answer, questions about how poor sleep might contribute to these deficits.

Have you applied the theory of sleep-dependent memory consolidation to any other psychiatric disorders?

We are starting to get this sense across psychiatry that the association of psychiatric disorders and sleep disorders is bi-directional. Whether

we are talking about schizophrenia, depression, or bipolar disorder, we now have decent evidence that poor sleep is contributing to the symptoms as well as, undoubtedly, the symptoms contributing to the poor sleep, which gets you into a vicious cycle. I now have a theory that post-traumatic stress disorder (PTSD) is a sleep disorder—specifically, a disorder of sleep-dependent memory processing.

How does sleep factor into the severe anxiety that PTSD patients develop after exposure to a psychologically traumatic event?

While you are asleep, the brain seems to figure out how to take new memories and imbed them in a network of associated memories that you already have. The real problem with PTSD patients is that they fail to do that. They keep these traumatic memories almost enshrined in the

form in which they were first encoded. As a result, they never come to peace with the memory and resolve it, which is just another way of saying they don't integrate the memory into associative networks so that their brains know how to use that information in the future.

What kind of impact does philanthropic support, like the grant from Autism Speaks, have on this field?

We have only in the last three or four years understood sleep-dependent processing well enough to be able to appreciate the potential problems that patients might have and even begin to form the questions we want to ask. We have a whole slate of psychiatric and neurologic disorders we want to look at and a whole range of potential drug treatments to explore. With all the projects that need to be done, I could literally fill a couple floors of this building. Grants like this keep this exciting work moving forward. ●



Preserving the Personal with Annual Giving

“BIDMC is a very caring, principled, personal hospital that gives the patients a sense of wanting to live, wanting to survive, wanting to be cured. That feeling comes from the people who clean the floors all the way up to the top.”

—Al D'Amico

A regular patient at BIDMC for more than 30 years, Al D'Amico is quite familiar with the medical center and its staff. Suffering from atrial fibrillation, or abnormal heart rhythm, he has received a range of treatments, both simple and complex, to keep his health on track. D'Amico praises the endless personal attention from the nurses, clinicians, and administrators, calling the genuine affection for their patients “amazing.”

“If you have something wrong with you and it's the first time you are being treated, you know that you are being treated by people who care,” he says.

Whether it's your first visit to the medical center or your 100th, you can join Al D'Amico in ensuring this quality of care for all patients by supporting the BIDMC Annual Fund.

To make a gift to the Annual Fund or for more information, visit www.gratefulnation.org/annualgiving or call (617) 667-7330.

NEWS OF NOTE

Visit www.gratefulnation.org/newsofnote for more.

DOWN WITH INFECTIONS

The U.S. Department of Health and Human Services recently recognized BIDMC for its efforts to prevent—and eventually eliminate—health care–associated infections, a leading cause of death in the United States. BIDMC was one of 10 hospitals in the country—and the only one in New England—noted for its achievements in working to eliminate both ventilator-associated pneumonia and central line–associated bloodstream infections.

MAGNETISM, MOBILES, AND MALARIA

The Bill & Melinda Gates Foundation awarded **Ionita Ghiran, M.D.**, an investigator in BIDMC's Division of Allergy and Inflammation, a \$100,000 Grand Challenges Exploration (GCE) Grant for his project that is using the principles of magnetic levitation and cell phone technology to create an inexpensive, portable device to quickly and accurately diagnose malaria outside of the laboratory setting.

NO LEPTIN, NO PERIOD

Christos Mantzoros, M.D., director of the Human Nutrition Unit at BIDMC, led a study which found that the lack of the hormone leptin contributes to the absence of menstrual periods in women with extremely low levels of body fat, but that treatment with a synthetic form of the hormone may restore both the menstrual cycle and fertility. The findings could help female athletes and women with eating disorders.

SCIENCE ON COMPLIANCE

A study led by BIDMC gastroenterologist **Daniel A. Leffler, M.D.**, found that an automated system that reminds both physicians and patients when follow-up colonoscopies are due nearly doubled the rate of completed exams, compared with standard care. Although there are some up-front costs associated with adoption of the follow-up system, once it is running, it can function with little additional burden to the physician or administrative staff.

Foundation Award Supports Research to Eradicate HIV Transmission through Breastfeeding



▲ Sallie Permar, M.D., Ph.D., shown with her four-month old daughter, Kinsey, is working to keep more babies healthy worldwide.

It took one day of work at a mission hospital in a remote corner of Zambia as an undergraduate for Sallie Permar, M.D., Ph.D., to realize something needed to be done to improve health care in developing countries. Now as a researcher in Beth Israel Deaconess Medical Center's Division of Viral Pathogenesis, Permar is acting on her early commitment to the people in this area of the world by making strides to eradicate the transmission of HIV from mother to child through breast milk.

The subject of Permar's research is a major concern in developing regions where HIV, the virus that causes AIDS, is epidemic and breastfeeding is essential for the early well-being of a child. Prophylactic antiretroviral drugs, if taken properly, can cut transmission rates from mother to child down to two percent, but that is not good enough for Permar. She hopes to improve upon this figure by focusing on the components of the mother's own immune system that might protect against transmission, and she recently received the 2010 Doris Duke Clinical Scientist Development Award, which included a \$486,000, three-year grant to support this work.

"We want to identify a cellular or antibody immune response that is found in the breast milk of women who don't transmit the virus and not found in women who do transmit the virus," says Permar. "That will give us a target for a vaccine where, on the day of delivery, one shot can be administered to the mother that will then protect the infant through the period of breastfeeding."

Relying on the funds from the Doris Duke Charitable Foundation award, Permar was able to approach the International Maternal Pediatric Adolescent AIDS Clinical Trials (IMPAACT) network about creating a critical research partnership. The organization was in the process of developing a large clinical study—the PROMISE Trial—in Africa, India, and the United States to examine the best antiretroviral prophylaxis regimen for HIV-infected mothers during breastfeeding. Recently, IMPAACT accepted Permar's proposal to investigate immune factors in samples of breast milk from transmitting and non-transmitting women as a sub-study.

The initial funding from the Doris Duke award supported a research assistant, supplies, and reagents necessary for Permar's preliminary work to show IMPAACT that she could

accurately measure immune responses in the frozen breast milk samples they would provide. The PROMISE Trial has now started enrolling subjects, and Permar is scheduled to receive her first samples by the end of the year.

Grants from the Medical Research Program of the Doris Duke Charitable Foundation focus on narrowing the gap between basic biomedical discoveries and their translation into new treatments, preventions, and cures for human diseases. Its annual Clinical Scientist Award is designed to support junior physician-scientists in their transition to independent clinical research careers.

"This award is obviously very beneficial to me. The hardest time for an investigator is the transition from working under someone to becoming independent," said Permar, who worked previously under renowned AIDS researcher, Norman Letvin, M.D., chief of the Division of Viral Pathogenesis at BIDMC. "I had a great mentor in Dr. Letvin. Now it is time for me to start establishing my own program. This type of award, which is targeted toward junior investigators who are right at that critical stage in their career, is a huge boost." ●

GRATEFUL NATION PUTS BIDMC DOCS IN THE SPOTLIGHT

In Grateful Nation’s Physician Spotlight Series, the incredible doctors at BIDMC discuss their clinical and research efforts—which give so many patients and their families reasons to be grateful—and express their thanks for those who support their work.



DIRECTOR OF GYNECOLOGIC ONCOLOGY
STEPHEN A. CANNISTRA, M.D.

“As a doctor working with deadly cancers like ovarian cancer, my hope is to better understand the resistance to chemotherapy treatments so we may be able to circumvent it and eventually find a cure for multiple cancers.”

As the director of gynecologic medical oncology at BIDMC, Stephen A. Cannistra, M.D., is hard at work to determine why ovarian cancer cells develop a resistance to chemotherapy drugs, which are initially very effective. The knowledge that is coming out of the innovative clinical trials he and his team are conducting in this area has relevance for not only ovarian cancer but breast, colon, and lung cancer, which also develop resistance to chemotherapy.

Under Cannistra’s direction, BIDMC pioneered the process of creating “gene expression profiles” in ovarian cancer using microarray technology. Using this analytical tool, doctors can determine which genes in a tumor sample are turned off or on, providing critical information about patients’ prognosis and the aggressiveness of their disease—specifically which patients will do well with chemotherapy drugs and which patients will not. The ability to predict how a patient will respond would enable doctors to personalize treatments, making them more effective.

Through continued research, Cannistra hopes to develop drugs that will interfere with the genetic pathways responsible for the resistance to chemotherapy and use profiling to aid in early diagnosis so tumors are caught at a more curable stage.



To learn more about the work of Stephen A. Cannistra, M.D., or to support his research, please visit www.gratefulnation.org/cannistra.



DOING GOOD TAX-FREE

Gerald Kraft’s appreciation for the quality of care and the exceptional research of BIDMC’s brilliant physicians sparked what is now a longstanding commitment to the medical center. The trustee emeritus and his wife, Sandra, recently took advantage of a unique opportunity to make an unrestricted gift to BIDMC’s Annual Fund through a tax-free distribution from his IRA. “I think a contribution should go where it is most needed and hopefully where it can do the most good,” says Kraft. “I trust the management of the hospital to make appropriate allocations.”

If you are 70 1/2 or older, you, too, can support the great work of BIDMC through a tax-free outright distribution up to \$100,000 from your IRA directly to BIDMC until the end of the calendar year.

For more information, please contact Michelle Kovach at (617) 667-7354 or michelle.kovach@bidmc.harvard.edu, or visit us online at www.gratefulnation.org/plannedgiving.



“The quality of patient care is outstanding at Beth Israel Deaconess. There is a family feeling. I love it. I think the doctors are wonderful. They are devoted to their profession, have great skill, and do incredible research. It’s a super place.” —GERALD KRAFT



THE SEPSIS STORY

BIDMC Scientists Write a New Chapter in the Search for an Elusive Killer's Treatment

Sepsis. Although the name may vaguely ring a bell, the exact definition of this disorder still eludes many outside the medical profession. While it holds a firm place among the top 10 killers in the United States along with the more recognizable culprits of heart disease and cancer, sepsis's complexity as a systemic syndrome rather than a distinct disease may be its undoing in terms of promoting understanding and awareness. A progressively severe illness stemming from an initial infection, it also tends to strike the less 'glamorous' populations in our midst: the already-sick, the immunocompromised, and the aged. Nevertheless, with the number of cases of severe sepsis that heavily burden our emergency departments (EDs) and intensive care units (ICUs) on the rise each year, it may be time to sit up and take notice.

Nathan Shapiro, M.D., M.P.H., an emergency department physician and translational researcher at Beth Israel Deaconess Medical Center, is one of the dedicated few who already has. "While emergency medicine is classically

linked with 'exciting' things like trauma and myocardial infarction, patients were coming in with sepsis and septic shock with high mortality and they weren't getting the same attention and the same focus," says Shapiro, recalling how the condition piqued his interest for the exact reasons others shied away. "The nursing home patient with a urinary tract infection just isn't the same as the one with multiple fractures. So, clearly, there was an unmet need."

Shapiro is at the center of a small group of interdisciplinary researchers at BIDMC for whom this killer's stealth and elusiveness has made them especially motivated to find out just what makes it tick and fill that need for better treatments. Housed at the Center for Vascular Biology Research (CVBR), the team has at one end of the spectrum well-established experts like William Aird, M.D., a hematologist and vascular biologist who directs the Center with decades of experience in sepsis research, and at the other end, young scientists like Samir Parikh, M.D., a nephrologist whose fellowship experience at the medical center offered him a unique opportunity to look at sepsis from a new angle.

Together, they are ushering sepsis research into a new era, trying to have success in a field that is, thus far, legendary for its failures. "They call sepsis the Bermuda Triangle of medicine," says Aird, "because they've spent billions of dollars trying to find treatment drugs and virtually none of them has worked. And this is becoming so important that even the negative studies get published in *The New England Journal of Medicine* and other very high profile publications because they involved tens of thousands of patients and it's better to learn from negative



▲ For information on how you can support William Aird, M.D., Nathan Shapiro, M.D., and Samir Parikh, M.D., (clockwise from left) in their mission to give the sepsis story a happy ending, please contact Loren Feingold at (617) 667-7357 or lfeingol@bidmc.harvard.edu.

data than to have no data at all.” The few successes that have occurred are mostly refinements in clinical management like optimizing ventilation of sepsis patients or improving the interaction between the ED and the ICUs to enhance their care (a project which Shapiro spearheaded at BIDMC). While wonderful, lifesaving advances, they still pale in comparison to the holy grail of a concrete treatment or cure.

The history of disappointments may lie in the lens through which scientists have traditionally looked at the condition. Sepsis starts with an initial infection, anything from pneumonia to meningitis to a urinary tract infection. In the majority of cases, the body’s own immune system will fight off the bug, either independently or with a little help from the modern miracle of antibiotics. But in a growing subset of patients, antibiotics fail to do the trick, and the body’s systems, which start to wage an ever-escalating battle against the infection, are overwhelmed, often resulting in multiple organ failure and death. Much of the foundational research on sepsis has focused on the pathogen that causes the infection and how the immune system fights it off. “I think that investigating that interaction has led to a lot of novel insights about sepsis, but none of those insights has translated into any successful targeted therapy or a new important clinical diagnostic,” says Parikh. “So it’s obvious where the pathogenesis of sepsis lies—it’s in the way the microbe interacts with the body. But the aspect of that interaction that everyone’s focused on has been the immune system and inflammation—and maybe that’s not the whole story.”

The members of the BIDMC team believe emphatically that the story’s missing section—one that may be key to its denouement—is the one they are writing. In short, they suggest that the body’s vasculature, or blood vessels, is a major player in sepsis’s destructive progression. Several clues put them on this path, from the circulatory and vascular problems of septic patients to a chance finding that an anticoagulant, or blood thinner, called activated Protein C seems to reverse septic symptoms. Indeed, it was the latter finding that drew Aird into the study of sepsis in the first place. “Nobody knew how activated Protein C worked,” he recalls. “So here I was, as both a clinical hematologist who understood blood clotting and a vascular biologist who understood blood vessels, pulled into the field by intensivists trying to understand the connections between its effect on clotting and the effect on the vasculature. It was then that I realized sepsis was a wonderful model system to look at the vasculature because it really did affect every blood vessel.”

It also made sepsis a wonderful microcosm for the approach of the CVBR that Aird was trying to build at the time with Hal Dvorak, M.D., former chair of pathology at BIDMC and the discoverer of a now scientifically renowned vascular signal protein called VEGF. Instead of the single-minded focus of most vascular biology centers on the coronary arteries alone, CVBR’s mantra is to approach the vasculature as an integrative system from head to toe that transcends every organ. Today, Aird is looking specifically at VEGF as a potential target for sepsis. “VEGF acts at the level of the endothelium, which is the body’s single-celled lining of the blood vessels,” says Shapiro. “The idea that Bill has studied in mice and written about for years is that the endothelium, since it sees all the blood flow and both responds to and tries to address the changes that occur during sepsis, represented a significant diagnostic and therapeutic opportunity.” Shapiro has now teamed with Aird to look at the endothelium’s response in a multicenter clinical trial of septic patients in the emergency department as well as test the therapeutic viability of a cancer drug called Avastin, which knocks down VEGF levels.

But VEGF is not the only protein that affects the endothelium, and Parikh is focused on a group called angiopotins, which appear to be responsible for keeping this lining healthy and are perturbed in sepsis. He has been able to cut the death rate in half in mice with sepsis by reactivating this maintenance pathway, even without the use of antibiotics or other standard measures of care. Parikh, too, has partnered with Shapiro to measure the levels of angiopotins in septic patients in the ED and see if they correlate to future outcomes. “Nate has access to patients literally as they hit the door, at the earliest point that we can provide medical care for them,” says Parikh. “And I think that’s a unique window of time because a disease like sepsis is so fast moving and those first few hours can dictate the future course of these patients.” Even though it makes a lot of sense, Aird says that the CVBR’s approach of tackling sepsis in the emergency department is a rarity.

A vascular biologist/hematologist, a nephrologist, and an ED attending all working together seems logical for a systemic disease like sepsis. Nevertheless traditional scientific funding is organized around medical disciplines and single organ systems, leaving sepsis, financially speaking, out in the cold. “It’s very frustrating because here we are breaking all these barriers down, working side by side, yet government funders are so entrenched,” laments Aird, who notes that the National Institutes of Health is particularly conservative when it comes to cross-cutting projects. “You reach a plateau that there’s only so much you can do and that’s where philanthropy comes in to lead the way.” The team notes that philanthropic dollars would provide unprecedented opportunities to be interdisciplinary across both organ systems and across fields like evolutionary biology and medical history as well as pursue more high-risk projects that would bring potential treatments to the bedside faster.

But even as they struggle for fiscal security, the team is hopeful about where they’re headed. “Ideally seeing some vascular-based medical therapy for our septic patients would be very fulfilling,” says Parikh. “Even if it turns out to be not the pathway I’m studying but another vascular pathway, it says at least we were on the right track, that this is here to stay and it matters.” All three note that the interdisciplinary nature of their work is what makes it so rewarding, despite its inherent challenges. “For an emergency department physician to actually be thinking about the endothelium at these micro levels, it’s just something I never expected to do,” says Shapiro. “But it’s been really interesting to try and put the whole story together from beginning to end.” ●

ON THE SCENE

PALM BEACH

MARCH 6, 2011

Event co-chairs Gilda and Alfred Slifka along with other members of the BIDMC community gathered at Club Colette for the annual Palm Beach event to welcome Elliot Chaikof, M.D., Ph.D., to the medical center. The new chair of the Roberta and Stephen R. Weiner Department of Surgery spoke about his vision for the future of surgery and how he was influenced by his family's own experiences. Special guests included Eric Buehrens, interim president and CEO of BIDMC; Stuart Rosenberg, M.D., president and CEO of Harvard Medical Faculty Physicians; and Mark Zeidel, M.D., chair of the Department of Medicine at BIDMC. The event also showcased the medical center's accomplishments and priorities in research, education, and quality and safety.

- 1 Martin and Dena Trust
- 2 Joseph and Marilyn Benoit
- 3 Buddy and Althea Lank
- 4 Eric Buehrens, Elliot Chaikof, M.D., Ph.D., Stephen Kay

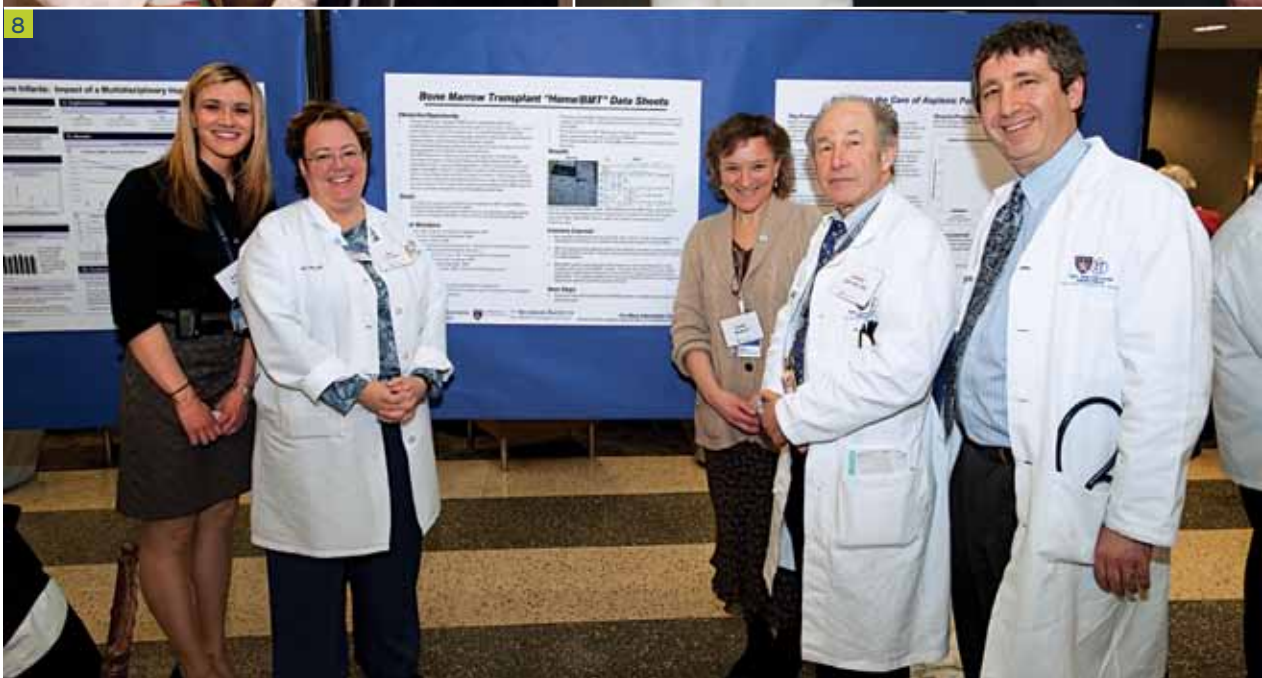


SILVERMAN INSTITUTE FOR HEALTH CARE QUALITY AND SAFETY

MARCH 28, 2011

Lois Silverman Yashar, founder of the Silverman Institute of Health Care Quality and Safety; Eric Buehrens, interim president and CEO of BIDMC; and Kenneth Sands, M.D., M.P.H., senior vice president for health care quality at BIDMC, welcomed more than 150 members of the BIDMC community to the annual celebration of the medical center's accomplishments in providing patients with the best possible care. The evening included the Michael F. Epstein, M.D., Lectureship on Clinical Quality and Patient Safety featuring guest speaker Pat Croskerry, M.D., Ph.D., professor in emergency medicine at Dalhousie University in Halifax, Nova Scotia. Croskerry identified qualities of the best hospital for making clinical decisions as part of an interactive panel discussion featuring panelists Cullen D. Jackson, Ph.D., division director at Cognitive Systems Engineering; Richard Schwartzstein, M.D., vice president for education at BIDMC, and Jeffrey D. Selberg, M.H.A., executive vice president and COO at the Institute for Healthcare Improvement.

- 5 Cullen Jackson, Ph.D., Pat Croskerry, M.D., Ph.D., Kenneth Sands, M.D., M.P.H.
- 6 Lois Silverman Yashar, Eric Buehrens
- 7 Richard Schwartzstein, M.D., Michael Epstein, M.D.
- 8 Stefanie Trouville, Roz Coss, R.N., Faith Bennett, James Levine, M.D., David Avigan, M.D.





EVENING OF GRATITUDE

APRIL 27, 2011

More than 300 people attended a night of celebration and appreciation honoring the talented professionals and volunteers of BIDMC's Cancer Center, including the longstanding contributions of Lowell Schnipper, M.D., chief of hematology and oncology, and Hester Hill Schnipper, L.I.C.S.W., chief of oncology social work. The event, co-chaired by Ellen Calmas, Susan Gotz, and Robin Shapiro, also highlighted the work of Lewis Cantley, Ph.D., director of the Cancer Center and leader of one of five Stand Up to Cancer "dream teams," and Pier Paolo Pandolfi, M.D., Ph.D., director of the Cancer Genetics Program and recipient of the 2011 Pezcoller Foundation-AACR International Award for Cancer Research. Funds raised from this event support two major initiatives within the Cancer Center: advancing individualized medicine and BIDMC's annual Celebration of Life event.

9 Roy and Ginny MacDowell

10 Susan Gotz, Robin Shapiro, Ellen Calmas

11 Irwin and Roberta Chafetz, Ted Cutler, Hester Hill Schnipper, L.I.C.S.W., and Lowell Schnipper, M.D., Ellen Calmas

12 Pier Paolo Pandolfi, M.D., Ph.D., Letizia Longo, M.D.

13 Hester Hill Schnipper, L.I.C.S.W., Sandy and Jordan Golding



CARDIOVASCULAR MEDICINE EDUCATIONAL BREAKFAST

MAY 18, 2011

BIDMC's Cardiovascular Research Advisory Committee, chaired by Mark Josephson, M.D., and Anthony Rosenzweig, M.D., welcomed more than 80 guests to the first Cardiovascular Medicine Educational Breakfast at the Harvard Club. The event included a panel discussion featuring six cardiovascular experts from the medical center, including Josephson and Rosenzweig as well as Warren Manning, M.D., Donald Cutlip, M.D., Loryn Feinberg, M.D., and Joseph Kannam, M.D., who addressed a range of topics related to heart health. The discussion was followed by an interactive question and answer session, moderated by former *Channel 5 News* anchor and health reporter, Heather Kahn, an advocate for the medical center's efforts to advance heart health.

14 Richard Polins, Patricia Black

15 Mitchell Rabkin, M.D., Stephen Kay, Adrienne Rabkin

16 Front row (left to right): Joseph Kannam, M.D., Loryn Feinberg, M.D., Mark Josephson, M.D.; back row (left to right): Warren Manning, M.D., Anthony Rosenzweig, M.D., Donald Cutlip, M.D.

17 Heather Kahn, Mark Zeidel, M.D.

18 Members of the Cardiovascular Research Advisory Committee



REACHING OUR MEANINGFUL POTENTIAL

BIDMC is the first hospital in the nation to meet new federal health record requirements

The days of paper records and illegible prescriptions are a thing of the past. Under the HITECH portion of the American Recovery and Reinvestment Act (the Stimulus), accessible electronic doctor visit summaries and e-prescribing are now becoming a reality. Beth Israel Deaconess Medical Center is confidently leading the nation in this groundbreaking program to implement secure, efficient, and meaningful electronic health record technology in the hospital setting. “A time of change is a time of opportunity,” says BIDMC chief information officer John Halamka, M.D. “Either you can get stressed or you can invent the future. I would much rather invent the future.”

The HITECH act and the related Meaningful Use regulation is designed to change the way health care organizations practice medicine. Over the next five years, the three-stage initiative will accelerate electronic health record functionality and data exchange. But the overarching goal is more about changing the behavior of medical personnel rather than updating the technology. “So much about Meaningful Use is not about the technology,” says Halamka. “Technology is a solvable problem. It is getting clinicians to use it wisely, and if you have a culture that demands the use of technology wisely, you will get places faster and further.”

Earlier this year, BIDMC became the first medical institution in the country to earn certification for current technology in quality and safety requirements and to provide proof of efficiency across a variety of first-stage criteria to qualify for incentives. BIDMC, which has 150 different technologies on campus, accomplished this feat because of its established culture of accepting new technology and the first-rate systems it has already in place. “We have doctors and nurses and pharmacists and social workers who tend to gravitate toward the use of technology as a tool in thinking about the possibilities,” Halamka says. “We tend to innovate and

build those things that aren’t in the marketplace and buy those things that are mature.”

The current push toward nationwide medical computerization began in early 2009 when the Obama administration laid out a five-year plan of health care reform. Under the American Recovery and Reinvestment Act, federal officials designated \$27 billion in incentives over the next 10 years for doctors and hospitals that use certified technology to achieve health and efficiency goals.

The Certification Commission for Healthcare Information Technology’s EHR Alternative Certification for Hospitals (EACH) certified BIDMC’s well-established bought and built EHR technology. The system was then monitored for 90 days to ensure the technology met 25 baseline criteria and additional quality measures related to the safety and efficiency of specific functions such as public health surveillance, submission to immunization registries, e-prescribing, and individual patient assessments, among others. “It is not enough to buy a piece of software and install it; you actually have to improve quality, safety, and efficiency and be engaging to your patients,” Halamka says.

Once medical institutions have satisfied the first stage of criteria, new and more rigorous requirements will be developed and released to qualify for certification. Stages two and three are expected to launch in 2013 and 2015, respectively. BIDMC is well prepared for the rapid advancement in methodology. “We have been using electronic health records since the days when computers were as powerful as a modern toaster,” Halamka says. “It is a culture here.”

Beth Israel Deaconess has gravitated toward technological innovation for more than 30 years. BIDMC incorporated the first electronic lab system for hospitals in 1977, and the first major electronic health record came on the scene at the medical center in 1985. BIDMC also has a strong history of using technology to improve the patient experience, becoming the first institution to make health records and actions easily accessible to patients through its online portal PatientSite, and later giving patients unprecedented access to their physicians’ comments and observations through the OpenNotesSM project. “Patients are able to access their full record including the full notes, and that’s an activity pretty much only here,” says Halamka.



▲ John Halamka, M.D.

Under the new requirements, all patients of certified institutions will receive electronic copies of summaries of clinic visits and have access to their lifetime medical records. “I would argue that the patient-engagement aspects of Meaningful Use are pushing the country faster than it would have otherwise gone,” Halamka says.

Strategic support in this area will allow BIDMC to continue down this road, while also making additional technology improvements where needed. “If you have Meaningful Use and all these other projects going on and a fixed amount of resources, you can only do so much so fast,” says Halamka. “We earned certification in the context of our existing budget, with our existing staff, without any additional funding, which is great, but there is only so much

we can do.” Support, such as the generous \$250,000 gift from Ken and Marianne Novack, which funded training for information services staff, enables the department to more rapidly adopt innovative technologies.

Despite the stress on resources, Halamka is enthusiastic to be at such a crucial point in medical information technology and health care methodology. “You could say this is the most stressful time in the history of health care IT because you are not only implementing massive new technology improvements, but you are moving people into things like sharing patient data with patients that maybe they have never done before,” he notes. “It’s a behavioral change management problem, and changing people is a whole lot harder than changing systems. Fortunately, we are well on our way.” ●

“It’s not enough to buy a piece of software and install it; you actually have to improve quality, safety, and efficiency and be engaging to your patients.”

Electronic Tablets May Be the Prescription for Better Care

Hospitalist and chief information architect Henry Feldman, M.D., used to draw rough sketches on a whiteboard to illustrate conditions to patients. Now, he can open Frank Netter’s *Atlas of Human Anatomy* on his lightweight mobile device to access more than 600 illustrations that paint a much better picture. “An educated patient is the best patient,” he says. “An iPad has allowed me to bring all of my care to the bedside to show the patient studies, labs, notes—anything I think will help them learn about their condition and make intelligent clinical decisions. It also lets me get necessary treatments to patients faster and more safely.”

The release of Apple’s iPad, among other portable devices, is paving the way for major changes in health care delivery. BIDMC clinicians are embracing the latest tablet technology and incorporating its use into everyday medicine with positive results, including increased collaboration with coworkers and improved patient interaction and education. “It has empowered doctors to be more productive, but it has also brought doctors and patients together,” says BIDMC chief information officer John Halamka, M.D. “I think what is so exciting about the iPad is it will change the way doctors practice medicine.”

All BIDMC physicians have access to internally developed Web-based applications, such as the electronic “dashboard” in the emergency department (ED), streaming the same software on the computer in their office or at the nurses’ station as well as on the iPad at the bedside. “All of our systems were created by clinicians at this medical center,” says Feldman. “They work the way our medical center works. We are not trying to take someone else’s vision and jam it into our workflow here. We know how we like to work with our patients and how we work with each other.”

That the new technology complements existing innovations at BIDMC is a boon. “I find it incredibly helpful that I can see the most recent test results as I am walking around the ED,” says Larry Nathanson, M.D., director of emergency medicine informatics and designer of the ED Dashboard. The iPad is able to link up with the application he created to centralize and regularly update patient data. “I don’t have to stop what I am doing and go back to a computer, which makes me more efficient and keeps me attuned to what is going on in the department.”

iPad users also have the flexibility to purchase applications, like Netter’s atlas, to use in day-to-day care. “We all have discovered different ways to use the iPad in our clinical practice and it all helps us in different ways,” says Feldman, who estimates 25 percent of doctors nationwide currently use the technology.

There are goals for further automation of doctor and nursing workflow on BIDMC’s inpatient wards using the latest innovations in digital pen or iPod, iPhone, and iPad technology. These advances can efficiently capture recorded vital signs, medications, and laboratory results and synch them to a computer or mobile device for easy communication and coordination with other medical personnel and electronic health records.

The complexities of health care reform are keeping the information services department and the Division of Clinical Informatics busy and resources strained. With a major focus on Meaningful Use (see story at left), new resources are needed to create a mobile technology team. “There are many innovations in workflow using technologies just being invented,” says Halamka. “A strategic donation around quality and safety and improvements that would allow us to adopt technologies faster certainly could make a huge difference.”

Lessons in Leadership

Foundation Supports

Physicians Training Program

Creating strong medical leaders not only requires continued clinical education but also exposure to leadership training specifically tailored to their profession. With this idea in mind, BIDMC recently established an innovative program focused on the latter, thanks to a \$70,000 grant from The Physicians Foundation.

“We are extremely proud to support the new physician leadership program at BIDMC,” says Paul Harrington, executive vice president of the Vermont Medical Society and board member of The Physicians Foundation, a nonprofit organization devoted to advancing the work of practicing physicians and helping them improve the quality of health care for all Americans. “In today’s challenging health care environment, it is more important than ever for physicians to have leadership training opportunities. The BIDMC program will enable physicians to obtain the skills necessary to continue their career growth.”

Led by Kenneth Sands, M.D., M.P.H., senior vice president of health care quality at BIDMC, along with Joanne Ayoub, Luanne Selk, and Amy Wasserman in Organizational Development, the new program is designed to build the knowledge base of early-career physician leaders at the medical center. Its goal is to teach these doctors the specific skills they will need to grow into the next phase of their careers.

“Training early-career physicians in leadership skills helps to ensure top-quality health care for our patients, now and in the future,” says Sands. “We feel that through this carefully developed program, with specific training, certified coaches, and experienced mentors, early-career physicians will achieve greater professional success and satisfaction.”

In preparation for the program, the organizers reached out to 14 hospitals and health care organizations to learn about their physician leadership



▲ Leadership program participant Julius Yang, M.D., Ph.D., interacts at the group's first meeting.

programs. Internally, the project team met with senior physicians and potential participants to identify what skill sets are most lacking and what would be most beneficial.

For this year's class, the program selected eight early-career physicians to focus on seven leadership competencies identified by a senior-physician advisory team as being critical for ideal career development. The group will work closely with established physician leaders at BIDMC, some of whom revealed that they themselves could have

benefited from the kind of guidance and focused leadership instruction this program offers.

Your corporation or foundation can have a lasting impact on the future of medicine by supporting our physician training programs and other innovative initiatives at BIDMC. To learn more, contact Susan Levin at (617) 667-7332 or slevin@bidmc.harvard.edu, or visit www.gratefulnation.org/candfgiving.

Softball Tourney Plays Hardball Against Melanoma

On most summer nights Kevin Regan could be found hanging out with “the guys” at the ball field behind his house, playing in the Woburn Men’s Softball League. Today, five years after Kevin’s death from melanoma at age 35, those same guys, his family, and other members of the Woburn community still play in his honor. In 2005, league representative Kevin Hazzard and teammate David Jamieson founded The Kevin Regan Memorial Softball Tournament to support melanoma awareness, research, and care in memory of their friend. With overwhelming support, the once-small event has grown into a two-day tournament featuring up to 16 teams, a pre-tournament party, and hours of softball.

Since its creation, the annual tournament has raised more than \$40,000 thanks to the generous Woburn community, players, families, and companies, and donated \$8,000 to Caroline Kim, M.D., director of BIDMC’s Pigmented Lesion Clinic, to support her quest to find an early detector for melanoma. Although a patient at BIDMC, Kevin never had the chance to meet this dedicated dermatologist, but his wife, Kristy, and their families know her well from their regular check-ups. “She is a fantastic, caring doctor, who is incredibly knowledgeable,” says Kristy. “She has such a passion for melanoma research because she sees the devastation it causes.”

Kevin was diagnosed with amelanotic melanoma—a hard-to-spot cancer characterized by lack of color—in 2001. After an unpleasant treatment experience, when the cancer reemerged and spread four years later, the Regans came to BIDMC. Under the direction of Virginia Seery, N.P., and a core of phenomenal nurses on Feldberg 7, Kevin received a level of care, despite his declining condition, that his family will never forget. “They did everything



Family and friends of Kevin Regan at the inaugural softball tournament in 2005.

they could possibly do to make him comfortable, and treated him like they knew him his whole life,” recalls Kristy. “He got such unbelievable care no matter what department he was in, what doctors were with him, what nurses were involved. They were all an incredible team.”

The sixth annual Kevin Regan Memorial Softball Tournament will be held September 16–17, 2011. For more information, e-mail acommish@woburnmenssoftball.com.

Bridging the Valley

New Pfizer-BIDMC Partnership

Addresses Research Chasm

Developing a new drug is a long and costly endeavor, estimated to take more than 15 years and \$1 billion. During this period, many promising new drug candidates encounter what has come to be known as biomedicine's "Valley of Death," where scientific experiments are too advanced for further federal grant funding, but not yet mature enough for industry investment—even though years of costly translational experimentation still remain.

Now BIDMC has entered into a partnership with Pfizer Pharmaceuticals designed to bridge this chasm. In June, BIDMC and six other area institutions announced joining the Global Centers for Therapeutic Innovation (CTI), a network of entrepreneurial partnerships between Pfizer and academic medical centers created to accelerate the translation of biomedical research into new medications and therapies. The announcement took place in the lobby of the Center for Life Science building, headquarters of the new program.

"Academic medical centers play an integral role in the early discovery process that leads to drug development," said Eric Buehrens, BIDMC's interim president and CEO, speaking on behalf of the academic medical partners. "The CTI partnership is designed to fundamentally improve the process of moving these discoveries forward by leveraging the strengths, resources, and expertise of academic medicine and industry, fostering broad collaboration and exchange."

Said Boston Mayor Thomas Menino, "[With this partnership] we are creating something we can truly believe in." Both he and Buehrens noted that the Longwood Medical Area, with its wealth of research in a four-block area, contains a greater concentration of scientific investigation than any other city—and most states.

"We are thrilled that Pfizer has chosen Boston as the location for its newest Center for Therapeutic Innovation—which will also serve as the program's world headquarters," said Massachusetts Governor Deval Patrick. "Pfizer's decision to increase its investments in Massachusetts is further confirmation of the kind of world-class expertise our state can offer the life sciences industry."

Last March, BIDMC was the first of Boston's academic medical centers to join the Boston CTI partnership, which now also includes Boston University School of Medicine, Children's Hospital Boston, Harvard Medical School, Partners HealthCare, Tufts Medical Center, Tufts University, and the University of Massachusetts Medical School. Other CTI programs have been launched in San Francisco and New York City.

"We are extremely pleased to be a part of this important collaboration," said BIDMC's chief academic officer, Vikas Sukhatme, M.D., Ph.D. "This partnership speaks to BIDMC's particular research strengths. Our more than 250 laboratories have identified the molecular underpinnings of many



▲ Left to right: Eric Buehrens, Interim President and CEO, BIDMC; Jose-Carlos Gutierrez-Ramos, Pfizer Biotherapeutics Research and Development; Mikael Dolsten, M.D., Ph.D., President, Pfizer Worldwide Research and Development; Boston Mayor Thomas Menino; Massachusetts Governor Deval Patrick

disease states, illuminating the bases of cancers, heart disease, AIDS, and metabolic disorders, and providing the critically essential knowledge that forms the foundation of future cures."

This basic laboratory research makes up approximately 70 percent of BIDMC's research portfolio and is chiefly funded through grants from the National Institutes of Health, noted Sukhatme. "But before these investigations are mature enough to receive industry support, they require many additional years of 'translational' experimentation. Lack of funding and infrastructure has prevented many important research projects from advancing beyond this first stage. Now, with the early support and resources that will be provided through the CTI partnership, these critically important basic discoveries will be able to transition from the lab and toward the clinic."

The CTI headquarters in the Center for Life Science building will enable scientists from BIDMC and Pfizer to collaborate side by side. Last month, a CTI steering committee made up of representatives from both camps was created to review and select CTI research project proposals from BIDMC investigators. In addition to Sukhatme, steering committee members include Anthony Hollenberg, M.D., director of strategic research development and planning and chief of the Thyroid Unit, and Terry Strom, M.D., co-director of BIDMC's Transplant Institute.

"Our scientists' response to the CTI has been tremendous," said Mark Chalek, chief of business ventures in the Technology Ventures Office. "Since the program was introduced at BIDMC earlier this spring, our office has received 38 project proposals from scientists throughout the medical center. This interest and enthusiasm speaks to both the entrepreneurial nature of BIDMC's research program and the strong translational component that underscores so many of our investigations." ●

New eCards have arrived!

Go to gratefulnation.org/ecards to send one today in support of BIDMC.



MEANINGFUL MILES

Grateful Nation Team Reflects on its Marathon Experience

For the second year in a row, John Hancock Financial generously gave Grateful Nation numbers for the 2011 Boston Marathon to help support Bowdoin Street Health Center's innovative efforts to improve the health of inner-city kids. "We are thrilled to have enabled Grateful Nation's participation in the Boston Marathon as a way of raising funds for Bowdoin Street's Healthy Champions program," says Tom Crohan, senior director of corporate responsibility at John Hancock. "It's a privilege to partner with BIDMC again this year to support the worthy cause of educating urban youth about healthy lifestyle choices." For the five runners who participated—four of them for the first time—the experience was life changing. Together their fundraising efforts raised more than \$35,000 in support of Healthy Champions.

“The energy you get from running with and through hundreds of thousands of cheering bystanders is inexplicable and unforgettable. I wanted to give back for all that BIDMC did for my mother, and it looks like I ended up being the one receiving yet again.” **ALEX MCLACHLAN**

“Preparing for my first marathon was a huge challenge, but running for Healthy Champions kept me going. Marathon Day was so inspirational, being with so many people running for important and deeply personal causes. It is a day I will never forget.” **KRIS LAPING**



“The marathon was filled with amazing experiences—seeing my family at mile 24, cheers from the crowd, crossing the finish line. One of my happiest memories was receiving a thank you note from the kids at the Healthy Champions program and knowing that our marathon fundraising made a difference.” **KEITH DESFOSSES**



▲ Healthy Champions members (and part-time vegetables) thank the marathoners for their support

“The marathon was an overwhelming experience: sights, sounds, personal struggles, collective triumphs, the mental game, the support of friends and family. I’m grateful for Healthy Champions, as motivation to run and fulfill a lifelong dream.”

GUY FISH



“I was thrilled to be part of the Grateful Nation team in support of Healthy Champions. The experience allowed me to both grieve and honor my father, who died suddenly after my first marathon in 2010, while at the same time aiding efforts to provide healthier lifestyle choices for children.” **MICHELLE HUGHES BENFER**



Bill Nawn, Ultramarathoner

Ultramarathon Man

One Boston Marathon wasn’t enough for Bill Nawn this past Patriot’s Day. The experienced ultra-runner completed two marathons on the historic Monday morning in honor of his mother, Marion Kerr Nawn, who passed away from leukemia last August.

As a gesture of thanks for the compassionate care his mother received as a patient at BIDMC, Bill created Miles of Gratitude, a fundraising team with three fellow runners, and raised more than \$23,000 for the medical center’s Inpatient Bone Marrow Transplant Comfort Fund and Leukemia and Multiple Myeloma Immune Therapy Fund. “We should use the gifts we have been given to give back,” says Bill. “My family and I really can’t thank the community and the Cancer Center at BIDMC enough for how wonderfully they treated my mom and us during that two-year battle.”

Marathon Monday, April 18, 2011, was an emotional day for Bill. He started the first marathon at the finish line on Boylston Street just before 5 a.m., arrived in Hopkinton before 9 a.m., and had 45 minutes of rest before he lined up for the return journey. “Motivation gets you through,” says Bill, who has run more than 20 events longer than the traditional 26.2-mile marathon, a sport known as ultra-running. “When it gets really hard and it’s painful and it’s sore and all you feel like doing is sitting down, how do you keep going? That’s where you have to have that underlying motivation.”

Exhausted after 42 miles, Bill came to the bridge over Route 128 in Newton where his mom watched him run previous Boston Marathons. “I knew she was with me the whole way, but when I got there, it was a lot of hugs, a lot of support, a lot of energy,” he says of his family’s support. “I really thought she was there and that she gave me a hug there too.”

Joined by his wife, Mary, Bill finished the final 10 miles into Boston, completing his eighth double Boston Marathon in eight hours and 11 minutes—3:48 for the first 26.2 miles and 4:23 on the way back. “It really was a success because of strength of family,” he notes. “There couldn’t have been any better way to honor and remember my mother’s legacy. Crossing the finish line was emotionally and physically a great achievement.”



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From left to right: Maya Jose, R.N.; Tomoyo Matsuzaka; Yuka Okajima; Marsha Maurer, BIDMC's nurse-in-chief; Roslyn Bentick-Evans, R.N.

BIDMC NURSES PITCH IN

As part of its National Nurses Week celebration in May, BIDMC nurses donated \$5,000 to the Red Sox Foundation in support of ongoing relief efforts in Japan following the devastating earthquake and tsunami that hit the country in March. Tomoyo Matsuzaka, wife of Red Sox pitcher Daisuke Matsuzaka, and Yuka Okajima, wife of Red Sox reliever Hideki Okajima, were on hand at the occasion to thank the nurses for their generosity. The Red Sox Foundation is the team's official charity, and BIDMC is its official hospital.

giving
matters

BETH ISRAEL DEACONESS MEDICAL CENTER

SUMMER 2011

UPCOMING EVENTS

**WEDNESDAY
SEPTEMBER 14, 2011**

Playing for Parkinson's Fourth Annual
Tennis Event and Dinner
Tennis Event: 10:30 a.m.–3:30 p.m.
Longwood Cricket Club, Chestnut Hill
Dinner with Networking: 6:00 p.m.–8:30 p.m.
BIDMC, Boston

**SUNDAY
SEPTEMBER 18, 2011**

A Reason to Ride Bike-a-Thon,
presented by Fuddruckers
8:30 a.m.–2:00 p.m.
Liberty Tree Mall, Danvers

**SATURDAY
OCTOBER 15, 2011**

Friends of Emilia: A Walk with Friends
10:00 a.m.
Dock Square, Rockport

**WEDNESDAY–THURSDAY
OCTOBER 26–27, 2011**

World Health Forum
9:00 a.m.–6:30 p.m. and 7:00 a.m.–6:30 p.m.
Joseph B. Martin Conference Center,
Harvard Medical School, Boston
www.bostonworldhealthforum.com

**TUESDAY
NOVEMBER 1, 2011**

Prostate Cancer Educational Event
6:00–8:00 p.m.
Newton Marriott, Newton

**FRIDAY
NOVEMBER 18, 2011**

BID-Needham Annual Gala
6:00–11:00 p.m.
Newton Marriott, Newton



**A REASON TO RIDE
SEPTEMBER 18, 2011**

presented by Fuddruckers

Kicks off at the Liberty Tree Mall, Danvers

**Whether you register to bike 10, 25, or 50 miles, you'll
be supporting cancer care and research at BIDMC.**

Can you think of a better reason to ride?

**Find more details on how to get involved at
www.gratefulnation.org/areasontoride.**

