

BROWN MEDICINE

Volume 18 | Number 3 | Fall 2012

The cost of health care is sinking the system. Does this young doc have the paddle?

PLUS:
MEET THE PRES

LIVE LIKE
WE'RE DYING

A young man with dark hair, wearing light blue medical scrubs, is sitting in a small, dark blue wooden rowboat. He is looking directly at the camera with a serious expression. The boat is on a body of water, and the background shows a line of green trees under a cloudy sky. The overall tone is contemplative and somewhat somber.

UP A CREEK

LETTER

FROM THE DEAN



A New Leaf

This fall is an exciting time in BioMed. President Christina Paxson has begun her term. She has been spending much of her time meeting with many faculty and students. President Paxson has been warmly welcomed by all members of the community, and she has been remarkably open and welcoming to us. She has also initiated a strategic process for Brown that will identify priorities and initiatives for the University over the next five to ten years. Many individuals from BioMed will be involved in the process. At all levels we look forward to working with our new president on the plans for new programs and continued excellence in the future. Please see the Q & A with President Paxson in this edition.

This issue also highlights some of the challenges facing the Medical School and Public Health including our clinical faculty and hospitals in the future health care landscape. Health care costs are unsustainable, primary care has been neglected, and there has been a lack of focus on areas such as prevention and palliative care. It's gratifying to see Alpert alumni such as Neel Shah and many members of our faculty engaged in helping our country confront these staggering problems.

This issue also profiles Dr. Jack Wands, director of the Brown Liver Research Center. Dr. Wands is one of the world's outstanding researchers in gastroenterology and particularly hepatology. He was the first division chief recruit when I was chair of the Department of Medicine and one of a long line of recruitments that Brown has made from Harvard. Jack has grown his Research Center and the Division of Gastroenterology into one of the country's best. He has also been an inspiration to legions of Brown undergraduates, medical students, residents, and fellows.

We are looking forward to an exciting new year with new leadership in many positions at Brown and our affiliated hospitals as well as new faculty and students.

Edward J. Wing

PETER GOLDBERG



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“A lot of my colleagues think in lists—that’s a good quality in doctors. I sometimes think in exploding clouds.”

—Neel Shah ’05 MD’09, Page 22

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Waste Not, Want Not

BY KRIS CAMBRA

What price health care? Alumnus Neel Shah and a growing chorus of experts are calling for doctors to step up their efforts to stop unnecessary and wasteful medical care.

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5 Questions for President Paxson

BY KRIS CAMBRA

Brown University’s 19th president took office in July. Christina Paxson shares her thoughts on the Division of Biology and Medicine, so far.

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Lights Will Guide You Home

BY EILEEN O’GARA-KURTIS

Palliative care providers say that helping someone have a peaceful, life- and love-filled death is not sad, but rewarding. New programs at Brown provide those dignified endings, and teach the next generation of physicians to do the same.

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Cover: Neel Shah on Jamaica Pond.
Photo by Jared Leeds.

Turn the Page

In my old office, I'd perfected the move of rolling my chair back so that I could look over my shoulder and see if Sarah Baldwin-Beneich, my editor and mentor, was seated at her desk. From this vantage point, I could call over with a grammar question, test her knowledge of institutional history, or try to make her laugh with the latest thing that had popped into my head.

Now, I have to shout considerably louder, since Sarah is up on College Hill as director of communications at the Watson Institute. Readers who have come to know and appreciate this magazine, take heart. Sarah taught me everything I know about alumni communications, and her presence is still very much felt over my shoulder.

As I took over the editor's chair, I revisited the magazine's mission statement, to make sure we stay on course.

Brown Medicine is intended to create a connection between Alpert Medical School and its many constituencies, especially alumni; to inform them of the activities and accomplishments of its faculty, students, and alumni; to encourage an exchange of ideas and opinions on issues relating to medicine and medical education; and to increase the visibility of and support for the Medical School.

In reflection, I think we do a good job of informing, but not so much when it comes to the exchange of ideas. That requires conversation and dialogue, and to achieve that, we need to hear from *you*. With so much controversy in health care—over ethical issues, plans for reform, even how to bring down its cost, as I explore in this issue—I know our readers must have strong feelings. And I know there must be thoughtful, intellectual, passionate opinions out there. This is Brown, after all.

Share them with us.



BROWN
MEDICINE

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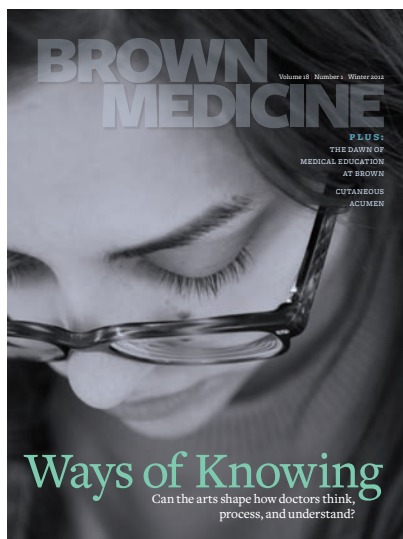
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INBOX

UP ALL NIGHT

I agree with the conclusion reached by Randy Rockney in his opinion piece “All Nighters” (*Brown Medicine*, Winter 2012) that “maybe it is not such a bad thing that ‘all-nighters’ be relegated to the dustbin of history.” However, I come to this conclusion not as a medical professional, but as a person whose only contact with the medical profession is as a patient. While I do not doubt that all-nighters can wreak havoc on the social development of the residents and cause their compassion for patients to “go out the window,” my primary concern about all-



nighters is not their effect on the residents, but their effect on me. As a patient, I do not want to—and should not—be treated by a medical professional whose lack of sleep “produces impairments equivalent to intoxication beyond the legal limit to operate a motor vehicle.”

It’s pretty simple: if you’re too drunk to drive—or so sleep-deprived that you are the functional equivalent thereof—then you’re too drunk to make decisions regarding my treatment. I am sure that Dr. Rockney is an excellent doctor, and I do not doubt that he, and legions of residents, do not “perceive any diminution of [their] technical skills after 36 hours without sleep.” Most drunk drivers say the same thing about their ability to drive. Resident work hour restrictions are long overdue. As a patient, I welcome them.

Name withheld by request



Don’t Rock the Boat

Those strong, frozen hands you see steadying the boat belong to Dominic Casserly, photography assistant for Jared Leeds. Dominic dismissed it as “all in a day’s work,” but it took some courage to get up to his neck in Boston’s chilly Jamaica Pond in early September. Luckily Dominic was up to the task, or else the perfect shot might have floated away.

JARED LEEDS

COMING ATTRACTIONS

October 19-21

Medical Family Weekend
brown.edu/go/mdfamilyweekend

October 25-27

President Christina Paxson’s
Inauguration Weekend
brown.edu/about/administration/president/

May 24-26, 2013

Commencement-Reunion Weekend
brown.edu/go/medicalreunion

WRITE US.

Please send letters, which may be edited for length and clarity, to:

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THE BEAT

WHAT'S NEW IN THE CLASSROOMS, ON THE WARDS, AND IN THE LABS



Erika Edwards
in her element.

FRESH AIR

Good to Grow

New space, new grant revive Brown's herbarium.

If you were to wander into the basement of Brown's Arnold Laboratories, you might notice, just beyond the Coke machine and below the labyrinth of pipes, a scratched door with a simple sign: "Brown University Herbarium."

And if you thought that even the typeface had the look of a decade gone by, you would be correct.

The 669-square-foot room beyond was designated as a "temporary" space for the herbarium in 1987. Crammed

with cabinets—some so damaged that they left specimens vulnerable to ultraviolet exposure and to fluctuations of temperature and humidity—the herbarium's home was woefully inadequate.

That is, until recently. Last July, Brown's precious collection of plant specimens at last ascended from its crepuscular quarters to a spacious, modern home on the second floor of the BioMedical Center.

MIKE COHEA (2)



“We’re finding **strange little treasures**
... **that nobody knew existed.**”

The 1,600-square-foot space has climate-controlled collection storage, a prep room for processing new specimens, a specialized room for studying and working with the samples, and an office for collection manager Kathleen McCauley.

“This is beyond my wildest dreams,” says Assistant Professor of Biology Erika Edwards, who took over stewardship of the herbarium in 2008.

STRANGE LITTLE TREASURES

Brown received its first botanical specimens in 1869, when it acquired the superb herbarium and botanical books of Stephen T. Olney (1812-1878). No one knows how big the collection actually is today, but it is believed to include more than 100,000 mounted specimens of plants, not to mention cabinetfuls of mushrooms, lichen, algae, and other forms of life. Many are rare and some may even be unique, such as Brown’s full set of British mosses from 1818 (many European herbaria were destroyed during World War II). One recent find, a *Castilleja guadalupensis*, from Guadeloupe Island

off the coast of Mexico, is now extinct. It can only be found in herbaria.

“We’re finding strange little treasures like that, that nobody knew existed,” says Edwards.

Such specimens are more than relics of the past: historical plant collections are of great value to studies of global climate change, invasive species, and endangered or extinct plant occurrences.

Many more treasures are sure to be rediscovered as the collection settles into its new home and then as a National Science Foundation-funded project to catalog and digitize the collection begins in 2013. Brown is one of about a dozen herbarium sites around New England to share in the \$2.4-million effort to create a visual, computerized database of millions of samples.

“A new day is dawning here,” Edwards says. “It’s really exciting.”

Brown’s new facility will be open to the public by appointment and is sure to make adding to, and working with, the collection much easier for researchers at the University and beyond.

—**Kylah Goodfellow Klinge**
and **David Orenstein**

ADULT LEARNERS

Change Leaders

Brown launches executive master’s degree program.

In a time of unprecedented change in the US health care system, clinicians, executives and industry leaders could use some help learning how to navigate. Enter Brown’s Executive Master of Healthcare Leadership Program.

Part of a University initiative to develop programs in executive and professional education, the master’s in health-care leadership is Brown’s first executive education program. The inaugural class will enroll in August 2013.



Apurv Gupta

The Executive Master’s is a 16-month program that combines online learning with two 10-day and two six-day sessions on the Brown campus. It is targeted toward clinicians, executives, and senior administrators who have significant responsibility in the health care industry and want to continue working while pursuing their degree. This degree program was designed around the concerns of leaders in clinical care, hospital admin-

THE BEAT

istration, insurance, product and device manufacturing, and those in legal and regulatory settings.

Apurv Gupta '89 MD'94 understands those concerns well. He's signed on to build and teach two courses in the program's curriculum: "Creating the Healthcare Learning Organization" and "Management and Marketing Skills for Healthcare Transformation." Gupta is vice president of network performance improvement for Blue Cross Blue Shield of Massachusetts.

"I have been fortunate to gain the experience during my career that matches very nicely with what the degree program aims to deliver, and the timing of

this program's launch is also ideal for how I want to contribute to the ongoing transformation in health care," Gupta says. Guest lecturers for both courses will help make the concepts more real and dynamic for the students, he adds.

The curriculum draws on Brown's strengths in public health, public policy, health economics, and evidence-based medicine. In keeping with Brown's educational philosophy, participants will take a multidisciplinary approach to transforming health care and re-configuring their organizations while confronting system-wide and organizational constraints. Faculty from Alpert Medical School and the Public Health

Program will teach the courses, as well as industry experts.

"Many of us in health care have picked up skills and become adept managers and executives over time. However, there tends to be a shortage of leadership," Gupta says. "[T]here is an essential need for leadership to help organizations effectively navigate the changes and lead transformation of individual organizations and the industry. Students in our program will learn from the excellent faculty and their colleagues, as well as the rich resources of Brown, how to become such leaders."

For information visit: www.brown.edu/executive. —Kris Cambra

Ask THE EXPERT

A Public Service Announcement

Given the recent United States Preventive Task Force (USPTF) recommendations against prostate-specific antigen (PSA) screening, Brown Medicine asked Assistant Professor of Surgery (Urology) (Clinical) Joseph Renzulli what he advises patients regarding screening for prostate cancer. Renzulli is certified in robot-assisted surgery and is a member of the urology staff at The Miriam Hospital and Rhode Island Hospital.

Acknowledging the limitations of the PSA test, the urologic community continues to recommend PSA screening in men over 40 years of age with a life expectancy of greater than 10 years. Prostate cancer represents the most common malignancy in men. It is estimated that there will be 241,740 new diagnoses and 28,170 deaths from the disease in 2012. This confers a 16 percent lifetime risk of prostate cancer being diagnosed in an American male. However, during the past three decades there has been a measurable reduction in mortality from pros-

tate cancer. This reduction in death can be directly correlated to the introduction of PSA as a screening modality.

The USPTF has concluded that screening does not improve survival and therefore cannot be advocated for as a screening test. The European screening trial has demonstrated that PSA screening increases the overall number of prostate cancer diagnoses. However, the men diagnosed with prostate cancer through a screening regimen experienced a 27 percent reduction in prostate cancer specific mortality. Further, the PIVOT* trial recently reported that there was no significant difference in observation versus radical prostatectomy at 10 years of follow up in the low risk prostate cancer group (Gleason 6) but, there was a 31 percent reduction in prostate cancer mortality demonstrated in the intermediate risk group (Gleason 7) treated with prostatectomy. Therefore, we believe the real issue is not whether prostate cancer should be diagnosed but truly which cancers should be treated and which should be actively observed.

By selecting the appropriate patients for screening and treatment lives will be saved.

* PIVOT: PROSTATE CANCER INTERVENTION VERSUS OBSERVATION TRIAL



Dennis Keefe (left), president and CEO of Care New England, and Dean Edward Wing make it official.

AFFILIATIONS

They Still Say Yes

New agreement affirms partnership.

You might say it was a renewal of old vows.

Alpert Medical School has signed a new affiliation agreement with the Care New England Health System that strengthens ties and strategic planning among the school and Women & Infants Hospital and Butler Hospital.

The new affiliation replaces separate agreements between the individual hospitals and the school. Most importantly, the accord establishes an Affiliation Committee, in which the leadership of Alpert Medical School, Care New England, and each hospital will meet monthly to plan strategic collaborations that encompass clinical and academic opportunities.

The relationship between **Brown** and **Butler** and **Women & Infants** will lead to **growth** in research and education.

The relationship between Brown and Butler and Women & Infants will lead to growth in research and education, according to Dean Edward Wing.

“This affiliation agreement is significant because it further solidifies the research and education ties between Brown and our teaching partners at Care New England, Women & Infants Hospital, and Butler Hospital. It encourages more strategic programmatic growth for the academic medical center,” Wing says. “We are fortunate to have outstanding specialty clinical partners in the health of women and newborns and psychiatry and behavioral health.”

Under the terms of the agreement Care New England will provide additional financial support for academic programs within the school. The document also defines how trademarks will be used.

Nearly 280 Alpert Medical School faculty members are based at either Women & Infants Hospital, designated in the agreement as “the major affiliated teaching hospital for activities unique to women and newborns,” or Butler Hospital, designated as “the major affiliated teaching hospital for psychiatry and behavioral health.”

Women & Infants first became affiliated with Brown in 1969, when it was known as Providence Lying-In Hospital and before the Medical School was founded. Butler affiliated with Brown in 1971.

—**K.C. and D.O.**

FINDINGS

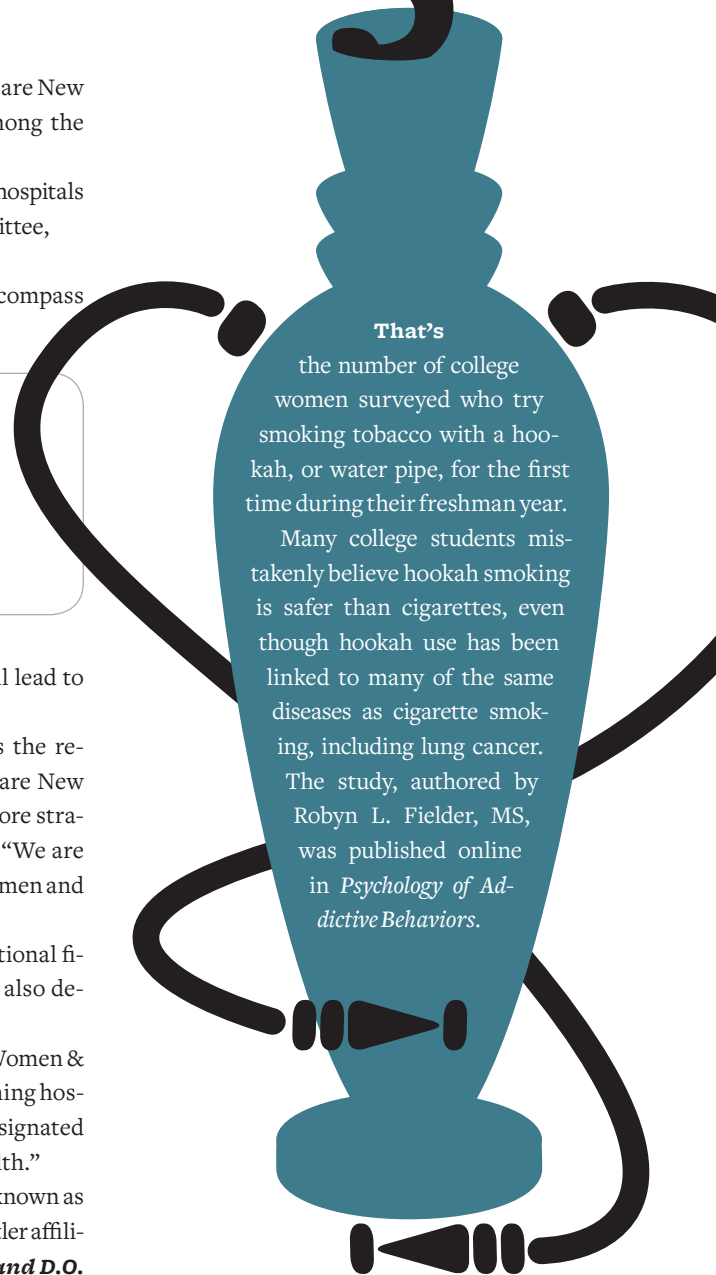
Pass on the Pipe

25%

That's

the number of college women surveyed who try smoking tobacco with a hookah, or water pipe, for the first time during their freshman year.

Many college students mistakenly believe hookah smoking is safer than cigarettes, even though hookah use has been linked to many of the same diseases as cigarette smoking, including lung cancer. The study, authored by Robyn L. Fielder, MS, was published online in *Psychology of Addictive Behaviors*.



THE BEAT

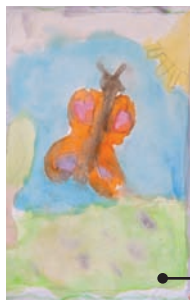
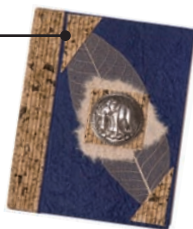
ANATOMY OF A MEDICAL LIBRARIAN

Index Medicus

While today's medical students still memorize facts, it's equally important that they know how to find information when they need it. So important that Alpert Medical School and the Public Health Program have a dedicated health sciences librarian housed in the School's George S. Champlin Library. Erika Sevetson, MS, helps students and faculty navigate the plethora of information now stored online, in massive databases and applications. Until earlier this year, Sevetson was the medical education, public health, and outreach librarian at University of Wisconsin—Madison's Ebling Library for the Health Sciences. Check out the tools of the modern library trade.

—K.C.

JOURNAL
Unusual journals and notebooks harbor Erika's to-do lists, while keeping things interesting.



CARDS
Oh, sweet nostalgia: old card catalog cards make excellent scrap paper.

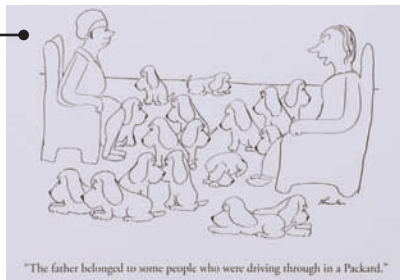
BUTTERFLY DRAWING
A masterpiece by her daughter, Clara.

BOOKS

Evidence-Based Medicine is an indispensable resource for medical librarians and EBM practitioners.

"I was a history major in college, and still love reading history of medicine and history of public health. *The Immortal Life of Henrietta Lacks* was a campus read selection at Wisconsin, and is one of my favorites. *Invincible Microbe* combines my love of public health history with my interest in children's literature."

CARTOON
If laughter is the best medicine, Erika is blessed to have inherited a love of James Thurber's work from her father.



TINY FURNITURE
One of Erika's former colleagues wanted to give her a real Wisconsin Union chair, but this business card holder was a bit more practical.



VIOLA
Though out of practice, Erika says playing viola in a string quartet is a great place to learn diplomacy.



ADAM MASTOON



DIY

If I Had a Hammer

What better way to help the MD Class of 2016 get acquainted with their new classmates than a community service project? During first-year orientation in August, Sam Klein MD'15 organized crews working at three Providence Habitat for Humanity houses. "I felt it would give Providence newcomers a chance to better understand the socioeconomic climate surrounding our academic institution," Sam says. "Med students develop a grasp on the classical pathology and its underlying microbiological mechanics, but the socioeconomic contributing factors too often get left behind in the assessment and treatment of disease."

—K.C.

DEEP THOUGHTS

Home Is Where the Health Is

Experts on the patient-centered medical home lead "think tank" at Brown.

A multitude of luminaries in health care delivery came to Alpert Medical School last May for a "think tank" designed to advance primary care transformation. Hosted by Brown's Department of Family Medicine, the event was focused on the patient-centered medical home (PCMH), a primary care model that is gaining momentum nationally. Though it lacks a universal definition, the PCMH emphasizes a team-based, coordinated approach to patient care, promotes enhanced access to providers and comprehensive medical care, and recognizes patients' central role in their own health.

Ten national PCMH experts met at Brown for several days before presenting to a group of more than 85 mostly Rhode Island-based clinicians, hospital managers, insurance professionals, and policy makers, including Rhode Island Health Insurance Commissioner Christopher F. Koller, Lieutenant Governor Elizabeth H. Roberts '78, and Director of the Rhode Island Department of Health Michael Fine.

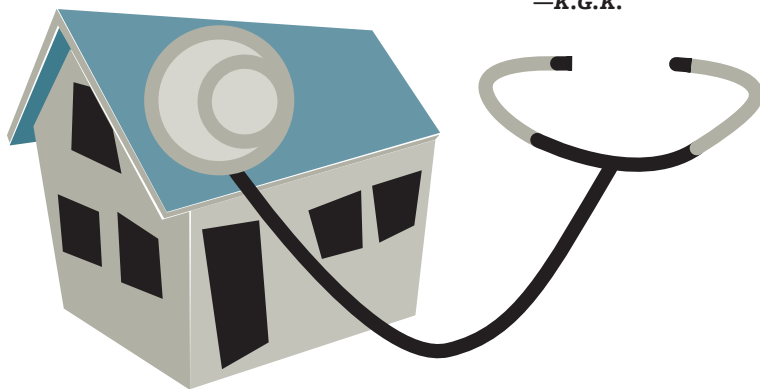
The PCMH experts shared stories of success from their home states and presented key strategies, emphasizing the need to first "prepare the soil" for change. "This is about more than just changing the billing structure for primary care," said Craig Jones, MD, director of the Vermont Blueprint for Health. "You need to establish a good environment first," said Douglas Eby, MD, MPH, vice president of medical services for

Southcentral Foundation, Alaska Native Medical Center. He emphasized the need for "deep mentoring" and training for clinicians and management.

In a group discussion about applying the PCMH model to Rhode Island, issues surrounding central leadership, common goals, payment structures, incentives for hospitals, physician shortages, and training were debated. "We need more training for groups as they become [medical homes]," said Professor and Chair of Family Medicine Jeffrey Borkan, MD, PhD. "And above all, continued effective conversation—and coordinated action."

A video of the event can be viewed at <http://ow.ly/eoLCh>

—K.G.K.



THEBEAT

ELEVATOR PITCH

The Face of Medicine

Does the Division reflect the diversity of our society?

Jabbar R. Bennett, PhD, joined the Brown Graduate School three years ago, where he was recently promoted to associate dean. His position was also expanded last year to include key roles in the Division of Biology and Medicine: he is now both director of the Office of Diversity and Multicultural Affairs and associate dean for diversity for the Division. If that wasn't enough, he is also a clinical assistant professor of medicine, which might overwhelm someone with less experience and know-how. Before coming to Brown, Bennett, who earned his doctorate in biomedical sciences at Meharry Medical College, directed the Office for Multicultural Faculty Careers at Brigham and Women's Hospital, a Harvard Medical School affiliate.

He took a moment to talk to *Brown Medicine* about diversity at Brown.

What are your priorities with diversity? What are the challenges?

Prior to my appointment in the Division last November it was determined that the Office of Diversity and Multicultural Affairs (ODMA) would no longer solely serve the Warren Alpert Medical School but would be a Division-wide of-

fice that services the Medical School, the Program in Biology, and the Public Health Program. Our mission is to help create and foster a diverse, inclusive, and culturally competent learning and training environment for students, faculty, and trainees within the Division of Biology and Medicine. Our priorities are: 1.

To coordinate recruitment efforts of students, faculty, and trainees who are underrepresented in medicine, biology, and public health; 2. To provide academic, personal, professional career development, and social support to students, faculty, and trainees who are underrepresented in medicine, biology, and public health; and 3. To collaborate with offices and centers across the University to offer culturally competent educational programming and related support to all members of the Division of Biology and Medicine community.

Alpert Medical School continues to be faced with challenges to student, faculty, and trainee recruitment, but these issues are in no way unique to Brown. While the national pool of potential underrepresented students, faculty, and trainees has grown slightly more diverse, so have the opportunities for these individuals to train and work at institutions that have better established and more well-funded recruitment, retention, and advancement programming. ODMA and the Medical School will work more closely with its basic science and clinical departments, offices and centers, teaching affiliates, professional organizations, and others to improve these outcomes.

What is your—and Alpert Medical School's—definition of diversity? Is that definition changing?

I define diversity as the acknowledgment, understanding, respect, and support of the whole and its parts, which can be applied to individuals, groups, and organizations. This characterization will continue to evolve as challenges to its benefit, merit, and necessity persist.

In 2010, keeping in mind the University's commitment to valuing difference and equity, BioMed developed and adopted its current diversity statement, which pledges to recognize, support,

Over Heard

“As medicine evolves, we need to embrace technology to help us consolidate and organize data and communicate with colleagues for the benefit of patients and ourselves. But if we lose the human connection in the process, we will have done untold damage to our profession.”

—**ELIZABETH TOLL, MD**, clinical assistant professor of pediatrics, from “The Cost of Technology,” an editorial about electronic medical records in the *Journal of the American Medical Association*, June 20, 2012.

develop, and maintain a diverse faculty, workforce, and student population. Dimensions of diversity include, but are not limited to, race, ethnicity, religion, sex, sexual orientation, gender identity, veteran status, age, and socioeconomic and geographic background. Our commitment ensures respect for diversity, broad representation at all levels, and consistency and compliance with Brown's policies on non-discrimination.

How does Alpert Medical School fare compared to other schools in terms of student diversity?

Alpert Medical School has garnered great success in medical student diversity. Currently, 25 percent of our students are members of underrepresented groups in medicine including American Indian or Alaskan Native, Black and Hispanic. These same students are represented at other US medical schools at an average of 17 percent.

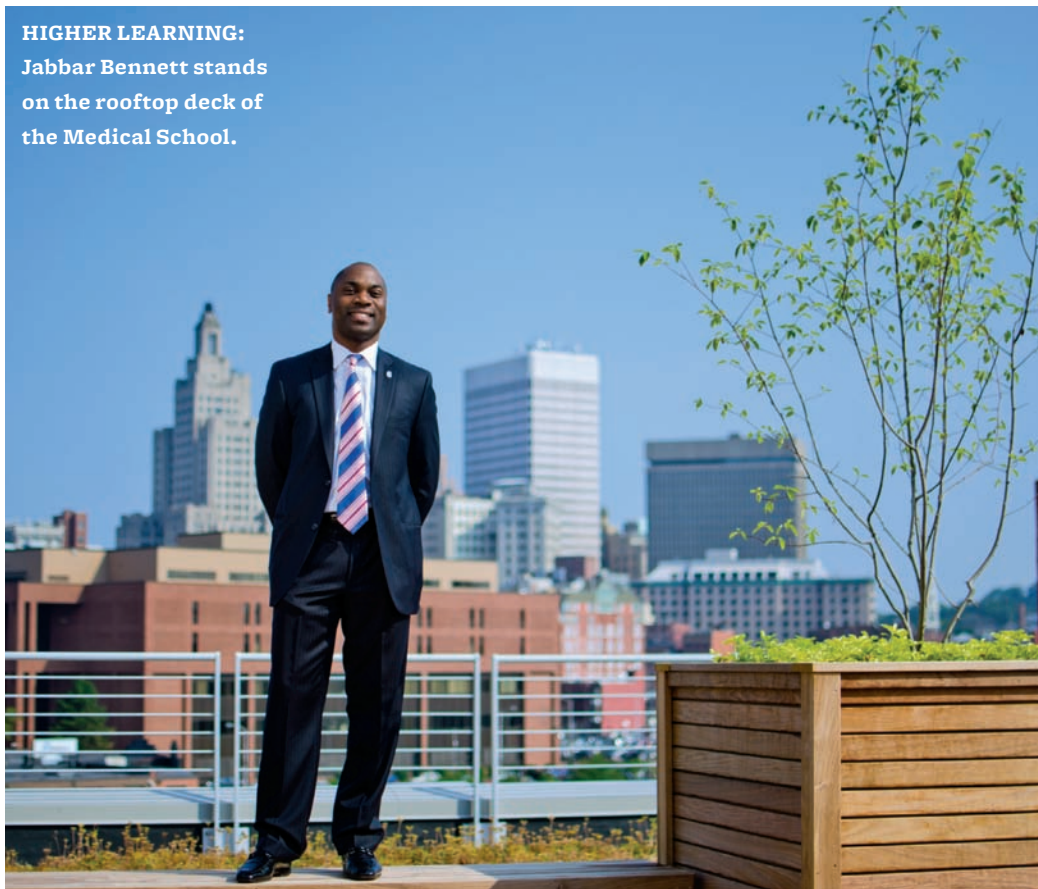
Does the School's diversity reflect the nation's?

Yes, according to the 2010 US Census the student diversity of Alpert Medical School is closely aligned with the population of American Indian or Alaskan Native, Black, and Hispanic residents, which was reported at 30 percent.

Is there a push toward faculty diversity, in addition to student diversity?

Absolutely, there is a push and sustained commitment to recruiting the most diverse and exemplary faculty and students possible. Over the next year my office plans to convene an advisory group composed of faculty, students, staff, and alumni who share mutual interest in and accountability for this work. These individuals will provide advice and support and will be engaged in these efforts.

HIGHER LEARNING: Jabbar Bennett stands on the rooftop deck of the Medical School.



“[W]e believe that **multicultural perspectives are critical** to the success of the Medical School.”

Why is diversity important, especially in medicine?

As reflected in BioMed's Diversity Statement, we believe that multicultural perspectives are critical to the success of the Medical School by enriching educational understanding, fostering outreach in clinical care settings, and enhancing trust in research. Diversity among faculty, staff, and students creates a greater number of role models, broadens perspectives, and combats negative and inappropriate stereotyp-

ing. Institutional diversity improves outreach to the community, enhances trust and communication, and facilitates development of culturally appropriate clinical and research programs.

In 2008, researchers from the University of California, Los Angeles, Higher Education Research Institute reported in the *Journal of the American Medical Association* that “Medical students who attend racially and ethnically diverse medical schools say they are better equipped to care for patients in a diverse society.”—**K.G.K.**

Welcome to the Family

MD'16 is the largest Medical School class ever.

At 120 students, the MD Class of 2016 is the largest in Brown's history. Students hail from 27 states—from Alabama to Vermont—and the District of Columbia, with four international students from Canada, China, and the United Kingdom. Undergraduate institutions range alphabetically from Barnard to Yale and geographically from Washington (Gonzaga) to Puerto Rico (University of Puerto Rico-Mayaguez). Twelve completed graduate work, earning advanced degrees in education, biomedical engineering, computer science, the humanities, and physical/biological sciences.

The class includes three Teach for America members; organizers of labor unions and political campaigns; a Marine combat veteran; an author and host of TV cooking shows; two Silicon Valley entrepreneurs; a dozen EMTs plus a chief firefighter; a clutch of triathletes and marathoners; numerous accomplished musicians and singers, and varsity/club athletes in football, swimming, track and field, soccer, boxing, and rugby.

Below are more clues to the composition of the Class of 2016.

TOTAL STUDENTS	120
Female	64 (53%)
Male	56 (47%)
AMCAS (Standard)	57
Program in Liberal Medical Education	49
Postbaccalaureate	10
Early Identification Program	4
AGE RANGE	20-32
ADVANCED DEGREES (MA, MSc, MPhil)	12
UNDERGRADUATE INSTITUTIONS	48
Public	14
Private	34
UNDERGRADUATE MAJORS	
Humanities	37%
Physical and Life Sciences	51.3%
Mathematics, Computer Science,	
Biomedical Engineering	7.5%
Independent concentrations	4.2%



OVERTIME

Duty Hour Regulations Are No Panacea

Residents speak out.

In the June issue of the *New England Journal of Medicine*, Brown plastic surgery resident Brian C. Drolet, MD, Vanderbilt surgery resident Derrick A. Christopher, MD, MBA, and Associate Professor of Medicine Staci A. Fischer, MD, published findings from their national survey of residents in response to the Accreditation Council for Graduate Medical Education's (ACGME) 2011 resident work hour regulations. The regulations were an expansion of the ACGME's 2003 restrictions and included establishing a 16-hour limit on continuous duty for interns. (The limit had been 30 hours.)

The survey of 123 residency programs represented more than 26,000 residents across specialties. Most notably, it found that almost half of residents (48.4%) disapprove of the new regulations—twice as many as those who approve of them.

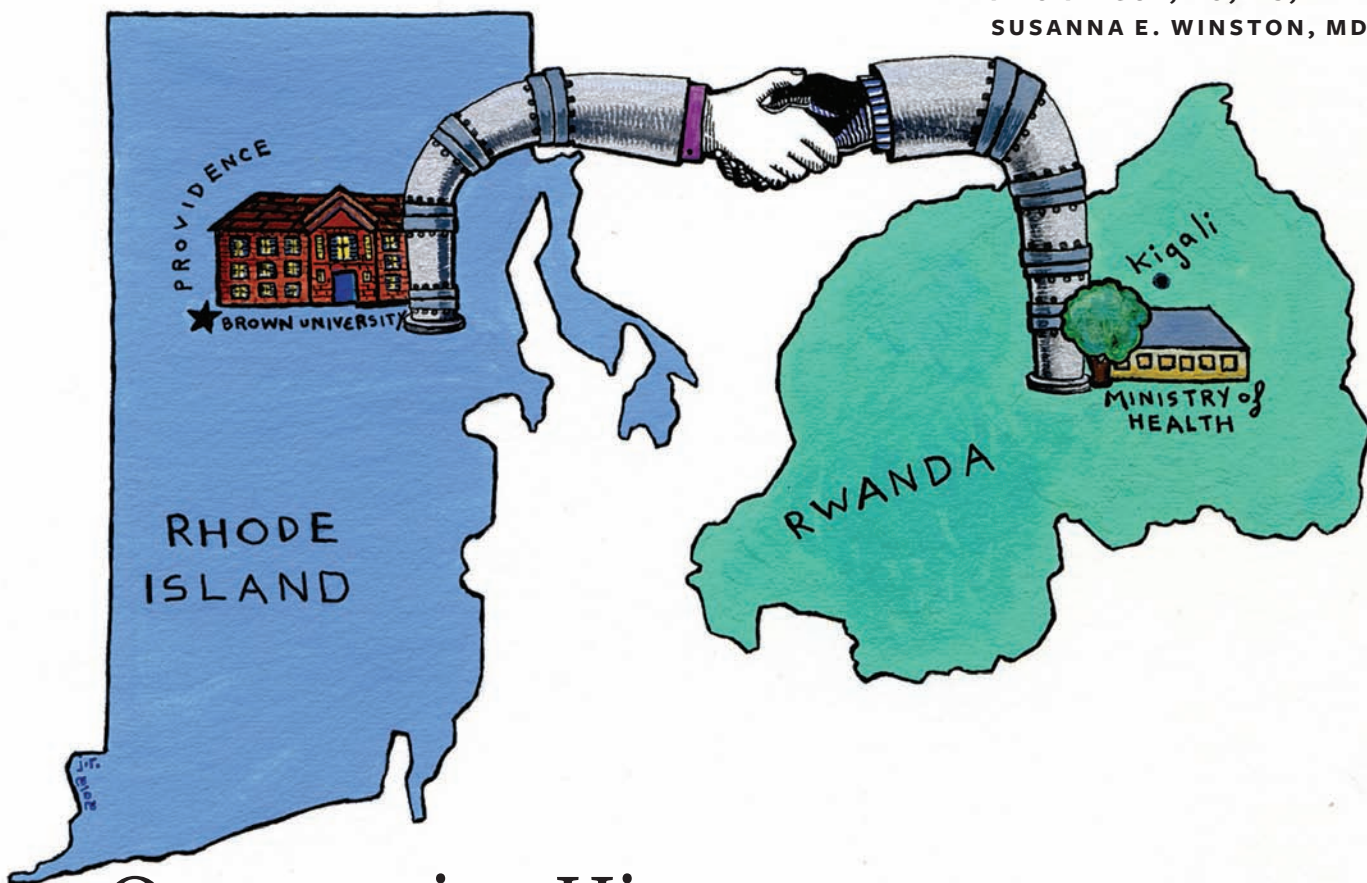
A previous survey by the authors had showed that half of residents anticipated positive changes in quality of life with the regulations. However, a positive change seems to have been borne out only for interns; overall, residents claimed that their work schedules were worse. The study also found that a slight majority of residents believed that preparation for more senior roles was inferior with the new hours.

"Residents are working the same number of hours with no change in the amount of rest they receive and with worse schedules than last year, which diminishes their overall quality of life," the authors wrote.

—K.G.K.

FIELDNOTES

BY MICHAEL KOSTER, MD
ADAM LEVINE, MD, MPH
BRIAN MONTAGUE, DO, MS, MPH
SUSANNA E. WINSTON, MD



Overcoming History

Brown partners with Rwanda to increase human resources for health care.

In 2011, the Ministry of Health of Rwanda began to develop a novel framework for leveraging partnerships with US universities. This capacity building program developed from the Ministry of Health's recognition of the need for a long-term sustainable solution for the significant personnel shortages across their health system. In collaboration with key stakeholders (Clinton Health Access Initiative, Partners in Health) the existing partnerships were reframed with new partnerships established around a common goal of promoting long-term placements of US teaching faculty in Rwanda to expand the educational pipeline and allow a more rapid increase in

the available workforce. The program includes the unique goal for high-level involvement by US faculty in the first years of the collaboration with involvement tapering down as newly trained Rwandan specialists join the workforce. By pairing US faculty with Rwandan faculty for collaborations in teaching and in research, the program will directly support capacity development within the Rwandan medical education and health care systems.

The Warren Alpert Medical School of Brown University and 10 other US academic institutions were identified and selected to participate based on their established experience in global health

education. Faculty placed in Rwanda include specialists in internal medicine, pediatrics, surgery, obstetrics and gynecology, anesthesia, emergency medicine, and associated subspecialists together with nurses and health administrators.

Brown University is engaged with three residency programs: emergency medicine, internal medicine, and pediatrics. Lead Brown faculty have met with colleagues in Rwanda and continue to mold the program within working groups. The designated Brown faculty will mentor newly hired Rwanda-based Brown faculty.

EMERGENCY MEDICINE

Currently, there are no practicing emergency physicians or emergency medicine training programs in Rwanda. At the referral hospital level, recently graduated general practitioners with minimal training or exposure to critical

FIELDNOTES

or trauma care generally staff the emergency departments. At the district hospital level, emergency departments are largely absent, and no formal means exist for triaging patients who arrive with potentially life-threatening medical and surgical conditions. Meanwhile, as in many developing countries, injuries continue to grow as a leading cause of death and disability across Rwanda, and the need for well-organized trauma systems at the local and national level continues to grow. As such, the Rwandan Ministry of Health has placed a high priority on introducing the specialty of

the auspices of the National University of Rwanda Faculty of Medicine located in Butare.

INTERNAL MEDICINE

Brown University is one of six universities contributing faculty to training in internal medicine. Internal medicine physicians provide the core consultation services at the referral hospitals in Kigali and Butare. The first two years will focus on placement of general internal medicine and infectious disease specialists with a plan for increasing involvement by foreign subspecialty

With close to 50 percent of the Rwandan population less than 18 years old, there is a large unmet need for pediatric providers.


emergency medicine in Rwanda, both at the local, district hospital level and at the provincial, referral hospital level. With support from the Brown Department of Emergency Medicine, including one to two full-time emergency medicine faculty on the ground in Rwanda, the Rwanda Ministry of Health plans to launch its first training program in emergency medicine this fall. The program will begin with a one-year diploma course intended to get large numbers of general practitioners working in the rural district hospitals up to speed on basic acute and trauma care. This diploma course will be followed next year with the introduction of a full four-year Master's in Medicine (residency) program in emergency medicine under

trained physicians during the subsequent years of the program, particularly in areas of identified need, including: neurology, oncology, cardiology, pulmonary medicine, gastroenterology, and nephrology. As the availability of qualified internists at the referral hospitals grows, it is anticipated that internal medicine faculty and postgraduate residents will play an increasing role as consultants and educators in the provincial hospitals. Though placements of one year or more are preferred, recognizing the need for subspecialty training, rotating subspecialty positions have been framed where multiple subspecialists come for blocks of three months at a time assuring coverage over the course of the year.

PEDIATRICS

With close to 50 percent of the Rwandan population less than 18 years old, there is a large unmet need for pediatric providers. To address this need the consortium plans to build a training program that graduates cutting-edge pediatricians respected in the international community. Brown is one of five universities that will contribute Rwanda-based US faculty to support the pediatric postgraduate training program. Aspects of the US faculty role will include formal didactic sessions, bedside teaching of clinical skills, and evaluation of trainees, as well as the program, in order to create a culture of continuous improvement.

This large-scale collaborative has the distinct advantage that each institution's strengths can augment each other, creating a whole that is greater than the sum of its parts. In addition, faculty twinning through personal one-to-one partnerships of US and Rwandan faculty will foster balanced and unified leadership within the program. If successful, this novel global health framework may serve as a model for future educational partnerships established for the purpose of capacity development around the world. We at Brown University look forward to our involvement in this initiative.

For more information: <https://rwanda.hrhprogram.wikispaces.com/> 

Michael Koster is assistant professor of pediatrics (clinical), **Adam Levine** is an assistant professor of emergency medicine, **Brian Montague** is assistant professor of medicine, and **Susanna E. Winston** is a fellow in pediatric infectious disease at Alpert Medical School.

FROM THE COLLECTIONS

BY SARAH BALDWIN-BENEICH



Standing by Drowne's home, ca. 1875, the children of Solomon's son, Thomas Russell Drowne (left to right): Walter, Adelaide, and Marion.

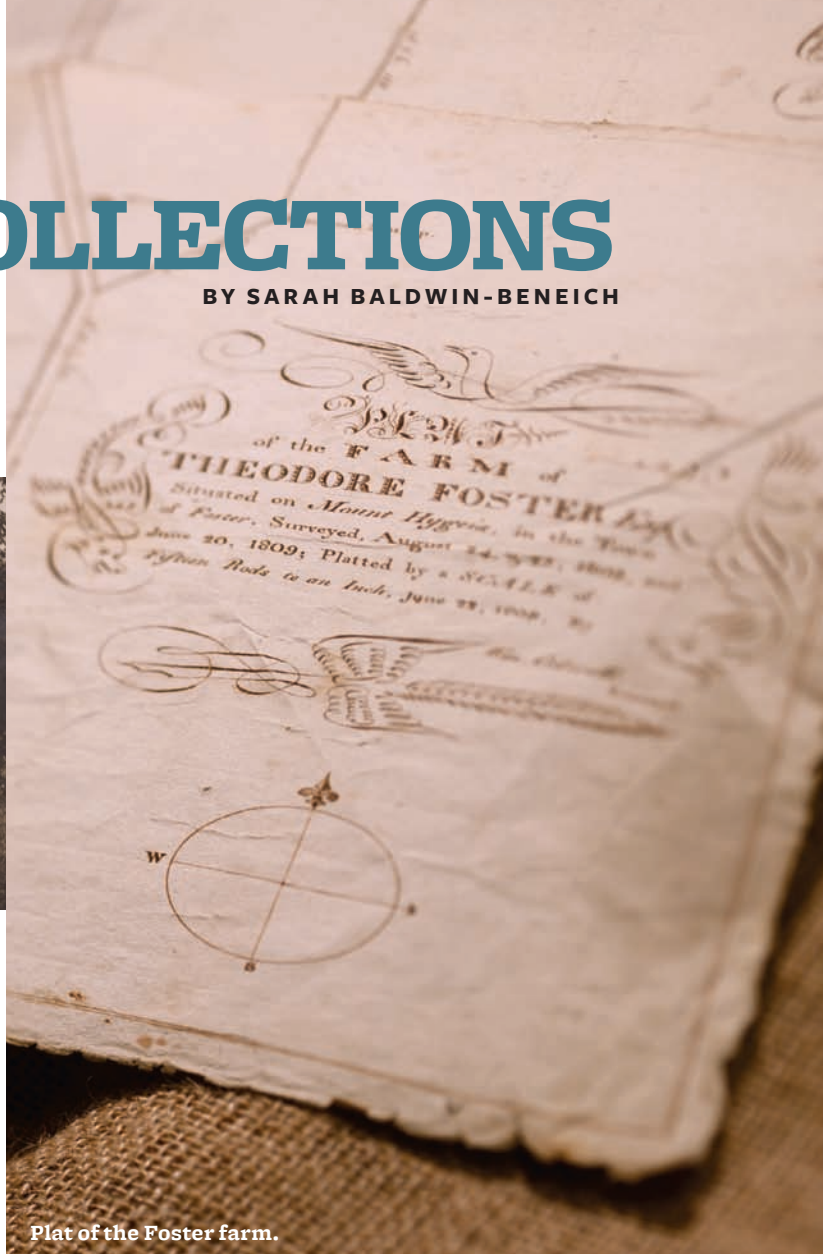
A Drowne Man Born and a Brown Man Bred

A founding faculty member's collected papers.

Solomon Drowne was what my grandfather would have called a real Rhode Island man: born in Providence in 1753, he graduated from Brown (then Rhode Island College) in 1773 and ended his days in Foster in 1834. In between those years, though, he became a doctor, joined the Continental Army, sailed on a sloop of war, pursued his medical studies in Europe, and lived in Ohio, Pennsylvania, and West Virginia.


In 1801, he bought a property on the central-western edge of his home state, next to his friend Theodore Foster's (not far, as it happens, from an old farm my grandfather owned). There Drowne built an estate he called Mt. Hygeia, after the Greek goddess of health, with botanical gardens containing ornamental and medicinal plants. In 1811, when Brown opened its medical school, Drowne was appointed professor of materia medica and botany. He was also an original member of the Rhode Island Medical Society.

The Drowne family papers is a special collection of the John Hay Library. In addition to Drowne's personal library, it contains more than 1,000 documents related to family members, including notes from Nathanael Greene, Julia Ward Howe, the

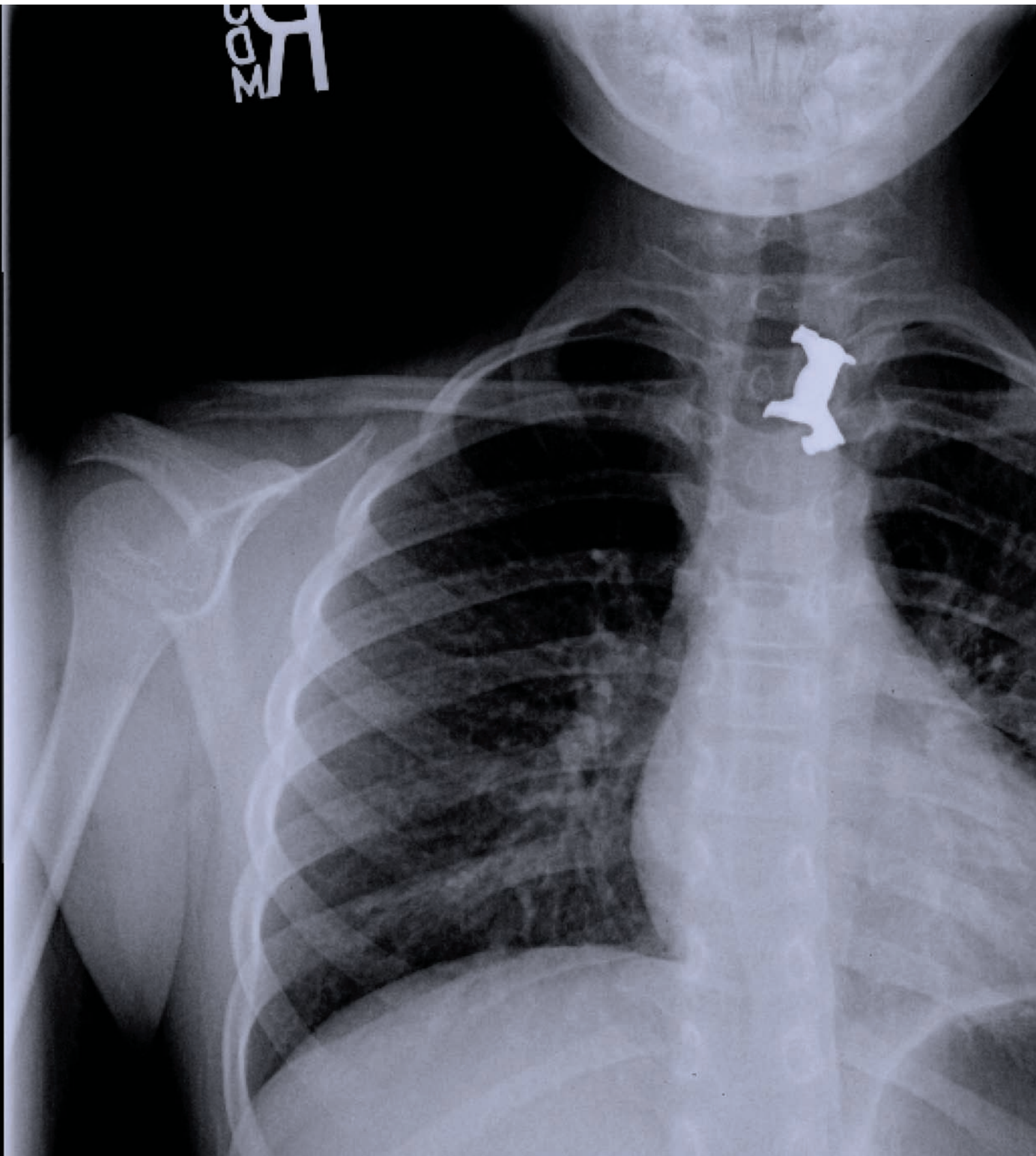


Plat of the Foster farm.

Audubons, Benjamin Waterhouse, Ulysses Simpson Grant, and General George Washington. The margins of a letter from one Phebe Wade are filled with Drowne's tiny script detailing various plants' medical properties, notably the bark of a tree that "when pounded, intoxicates fish."

Just as compelling are the photos of Mt. Hygeia. There are images of almost every room in the main house, showing wallpaper with wide-set patterns of urns and vines, spinning wheels, lace doilies, mantels framing fireplaces set with birch logs, strikingly white against the sooty hearths. Others reveal the bucolic, scruffy landscape that typifies this part of Rhode Island: white clapboard houses, stone walls, wooden gates, young pines, the crooked white teeth of tombstones on a sunny hilltop, sheep grazing among outcrops of bedrock. In photo after photo, streams curve, sunlight seeps through trees, and paths disappear into woods. It was a well-loved place. 

Sarah Baldwin-Beneich '87 is the former editor of *Brown Medicine*. She is currently communications director at Brown's Watson Institute for International Studies.





BIG SHOT

KATHLEEN M. MCCARTEN,
MD '66

Do Not Pass Go

A family game night leads to an unexpected trip to the OR.

This child swallowed the Scottie dog Monopoly™ game piece. It can be seen easily because it is metallic. It became lodged in the esophagus at a common location, the cricopharyngeus muscle at the junction of the neck and chest. Because it did not pass on its own—most likely due to its size and irregular margins—esophagoscopy was required. This entails passing a rigid scope into the esophagus and under direct visualization, retrieving the object with surgical instruments. To do this, anesthesia is required.

Young, and sometimes not so young, children casually place objects in their mouths. Either they accidentally swallow it or are hit or trip and without realizing it, swallow the object. They don't remember that their mothers had always told them that nothing goes in your mouth except food.



Kathleen McCarten is an associate professor of diagnostic imaging (clinical).

Keep Calm And Pipette On

Jack Wands leads an all-out attack on liver cancer.

Five percent. That's the survival rate at five years for people with liver cancer: a disheartening number for the doctors caring for them, and "a *dismal* prognosis" for patients, says gastroenterologist Jack Wands. Even more discouraging? More than 30 years after Wands—then a young house officer at Johns Hopkins—first became interested in studying the liver, that number has not really budged.

Until now. Using cutting-edge technology, Wands and his team at Brown's Liver Research Center are changing the face of liver cancer: they are developing two new therapies that harness the body's own immune system to fight tumors.

Wands, the Jeffrey and Kimberly Greenberg-Artemis and Martha Joukowsky Professor in Gastroenterology, came to Brown from Harvard in 2000 to establish the Liver Research Center, a 13,000-sq. ft. facility in Providence's Jewelry District. The Center is home to more than 12 principal investigators and some two dozen post doctoral researchers, all studying the molecular biology of liver diseases.

It's a sprawling space spread out over two floors. There is a lab where you can't walk in unless you've been vaccinated for hepatitis B, a lab with a "rodent survival surgery" area, and a lab with Geiger counters. (Because some of the experimental treatments involve radioactive isotopes, the staff must ensure there's no contamination.) One lab holds a liquid

nitrogen tank full of thousands of liver cancer cell lines. In Petri dishes in a nearby refrigerator, researchers are growing out some of those liver cancer cells, which they will later dismantle and study—or kill with their new therapies.

Current treatments rely on either surgically removing the tumor or poisoning it with chemotherapy. But surgery is only effective if the tumor is very small and has not yet spread. And chemotherapy is non-specific. Like carpet-bombing your entire body in order to target a few

SEARCH AND DESTROY

Here's how it works.

Wands and his team discovered a protein that liver cancer cells express much more highly than do any other cells. This protein, aspartyl (aspar-aginyl)-beta-hydroxylase, or AAH, helps the tumor to metastasize. The cancer's strength, then, also becomes its Achilles heel: the AAH distinguishes the tumor cells from the healthy liver cells around them. *Here I am!* the AAH announces. *I'm the cancer!*

Wands and his team are **developing therapies** that harness the body's own immune system **to fight tumors.**

thousand cells, it has many side effects and is difficult to tolerate.

But Wands and his team are using monoclonal antibody technology, which Wands describes as "the new frontier" in cancer treatment. One of the first available drugs to use this technology—Herceptin, for certain types of breast cancer—was an "absolutely dynamite, life-changing drug," says Wands. Practically overnight, these diagnoses went from death sentences to manageable chronic conditions. Wands hopes his new therapies will do the same for liver cancer.

Using the same principles that guide preventive vaccines like the polio or measles vaccines, Wands and his team have created a therapeutic liver cancer vaccine that exploits this Achilles heel by embedding copies of the AAH protein inside dendritic cells and then injecting them back into patients. Since dendritic cells help initiate and regulate the body's immune response, loading them with AAH helps "teach" the immune system to recognize and destroy liver cancer—while sparing the healthy tissue around it.



The consummate physician-scientist, Jack Wands keeps one eye trained on the patients who need a cure.

The idea for using the body's own immune system to fight cancer goes back more than three decades. In 1975, the Argentine biochemist César Milstein first created monoclonal antibodies as a means to harness the immune system to fight disease; he later won the Nobel Prize for this discovery. At the time,

says Wands, "everybody thought there was going to be a magic bullet." But Milstein's discovery was a classic example of scientific discovery outpacing scientists' ability to use it. "There was a whole bunch of technology that needed to be developed before it became where we see it today," says Wands. Now there are

more than 60 clinical trials using antibodies to fight various types of cancer. But, says Wands, "it's taken 15, 20, 25 years to find the right way to do it."

Milstein's monoclonal antibodies are the key to antibody targeting, the second new strategy Wands has developed to combat liver cancer. He and his team have developed an antibody that binds tightly to AAH. Attaching a "payload" to this antibody—a chemotherapeutic agent, for example, or a radioactive isotope—transforms the antibody into an elegant courier to deliver these killer drugs directly to the tumor. "The idea is, you put it on the antibody, it becomes a lot less toxic," says Wands. "You're specifically delivering it to the tumor, and not to other normal cells."

These therapies are still in the pre-clinical stages, but Wands says they'll be in Phase I trials within a year or two. From there to physicians' script pads? "Realistically, if everything goes *perfectly*," says Wands—if the trials prove the interventions safe and effective—"you're probably talking five to seven years." That's warp speed, in clinical trial years. "And I think the reason that it would go faster," Wands continues, "is that there's just nothing out there that's effective. I think the regulatory agencies would be interested in having something available."

ICING ON THE CAKE

Whether and when Wands' scientific discoveries ultimately become therapies

ZOOM

that real patients can use is of utmost importance to him. That's because, as Wands says, "I carry a stethoscope." He is a physician-scientist, one who moves seamlessly from the lab to the clinic and back again. Bharat Ramratnam '86 MD '93, an associate professor of medicine whose HIV lab is down the hall from the Liver Research Center, says Wands "does not lose sight of the fact that in his heart, he is an MD. At the end of the day, whatever his approach is, he is always looking to go into the clinic, to see how can this approach change therapeutics, change clinical approaches?"

With a perfectly-sculpted blonde goatee, Wands has what Ramratnam

describes as a "smooth charm." He's personable and easy to talk to, someone who takes his role as a mentor and senior scientist very seriously. But despite his decades on the job, "the guy is basically 18 years old," says Ramratnam. "He has that level of energy, optimism, and enthusiasm."

This enthusiasm is on prominent display each afternoon in the Liver Research Center's Break Room. Wands

calls it the Cake Room. Everyone signs up to bake, from lab techs and undergrads to Wands himself. (If you make a mistake in the lab, Wands says, you have to sign up twice. "It's called a one-cake penalty.") And every day at 4:00 pm, without fail, the entire staff piles into this tiny room to eat and chat. "Usually it's standing room only, and Jack holds court," says Ramratnam. "We can discuss anything, from why a western blot failed, why an anti-

"The guy is basically 18 years old. **He has that energy, optimism, and enthusiasm.**"



Wands presides over the daily cake hour, proving that science, like most things, is better with sweets.

body didn't work, to more grand things. It's incredibly valuable."

The day I was there, a student had baked a chocolate layer cake. ("Usually when we get a cake this tall we are reluctant to eat a large amount given the number of calories that could be consumed," the staff later reported on the lab's blog, cakehour.blogspot.com. "However this cake was much lighter than expected.") The frosting on top read "KEEP CALM. PIPETTE ON."

And that's precisely what Wands will continue to do as he works to improve outcomes for patients with liver cancer. "Any kind of improvement in survival that's measurable, even modest increase in survival," he says, would be a vast improvement over what we have now. "We would be ecstatic here."

Beth Schwartzapfel '01 is a Boston-based freelance journalist. Read more of her work at www.blackapple.org.

DAVID DELPOLO

RESIDENT EXPERT

BY HEATHER M. CASSIDY, MD

Heart on Her Sleeve

Who are we if we cannot doctor?



As a chief medical resident, I teach medical students about the art of the physical exam. Today, the students and I wandered the halls of the hospital requesting permission to listen to the hearts of strangers. It is innocent work—the practice that allows one to ultimately “practice medicine”—and most patients are gracious with their bodies once they glimpse the eager students peering in from the door behind me.

Our visits are brief; I listen first, then chat with the patients and their families as the students take their turns at the bedside, stethoscopes plugged in ears and jaws clenched in focus. As mere visi-

tors, we will not follow these patients throughout their hospital stay, nor are we a part of the care team. What is precious to me in the patient-physician relationship—healing borne from understanding as a patient comes to know the illness at hand—is not a part of these brief encounters. Yet I will remember today’s patient for the rest of my life. You see, hers was the first heart I listened to in many months.

Not long ago, deep in the trenches of residency, I experienced my own health scare. At the insistence of my physician, I was plucked out of rounds and found myself on my couch...where I stayed for nearly three months. Days into my house

arrest, I brought my white coat in from the car and hung it in a storage closet. As a rule, I am ambivalent about the white coat; it can help or hinder your rapport with patients, sometimes acting as a barrier rather than a foundation for trust. Nonetheless, I felt a wave of grief as I closeted that coat knowing my doctor identity had been shelved.

Even in an era of work-hour regulations, residency is all-consuming. When you spend 80-plus hours a week training as a physician, who are you—what are you—when you must stop doctoring? Certainly we all yearn for more time off, for vacation, for our quiet nights at home. But what happens when the pager falls silent and the calls cease not because it is your day off, but because you no longer have responsibilities to patients?

The answers would likely be different for each of us. I know I was humbled greatly to find myself on the sidelines. It is all too easy to gripe about hours and tasks—a difficult patient, a family that cannot let go, yet another consult—when immersed in the hospital’s daily grind. Indeed, medical educators are well aware of the phenomenon of eager interns coming to resent their patients for the very needs that attracted the idealist to medicine. But from afar, with my white coat in the closet and stethoscope on the bookshelf, our work seemed doubly precious. So much so that upon returning I knew that just listening to a stranger’s heart is a privilege.

Heather Cassidy earned her medical degree at the University of Colorado School of Medicine. She is currently a chief medical resident in Brown’s Internal Medicine residency program.

A fishing net is shown hanging, filled with several US dollar bills. The net is made of a dark, coarse mesh. The dollar bills are of various denominations, including \$100 and \$50 bills, and are crumpled and tangled within the net. The background is a blurred blue sky with some green foliage visible at the bottom. The overall image conveys the idea of wasting money, as if it were being thrown away like fish.

WASTE NOT, WANT NOT

A third of annual health expenditures is spent on unnecessary or unhelpful care. **CAN CHANGING INGRAINED PRACTICES HELP STOP IT?**

IT ALL STARTED AT BROWN.

The first night of his first clinical rotation as a third-year medical student, Neel Shah '05 MD'09 observed an ob-gyn resident who had worked in developing countries. He watched as she prepared to give their laboring patient an internal exam, tearing open a package of sterile gloves. She put one glove on, and since it only takes one hand to check a woman's cervix, threw the other in the trash.

Trained to be very aware of resources, she said to him, "Neel, every time we throw a few sterile gloves away, that's like \$10."

Shah, who is now a chief resident in obstetrics/gynecology at Boston's Brigham and Women's Hospital, recalls, "At the time, \$10 was lunch money times two."

No one could have predicted what that offhand comment would spark. Shah began noticing every time something was wasted in a hospital, questioned the necessity of many tests or procedures he was told to order. The dollars started adding up, and soon Shah was thinking, *Maybe we ought to do something about unnecessary, wasteful medical costs. Maybe I can do something about this.*

He made an unconventional decision to take time off of medicine and pursue a master's degree in public policy at Harvard's Kennedy School of Government.

"At the Kennedy School I was around people who were interested not just in health care, but all kinds of public policy

issues—and yet health care costs were the holy grail," Shah says. These policymakers saw runaway health care expenditures as a threat to spending on everything else society cares about: education, roads, security.

He saw parallels between the environmental movement and what could be done in health care. Just as the environmental movement stresses individual action and responsibility—recycling, taking public transportation, being energy efficient—there should be a similar impetus at the patient and physician level.

"The physician is the one who decides what goes on the bill, yet we often have little idea how that affects what patients pay," he says.

And it's hard to find out, as anyone who has ever tried to pick up a phone and ask what a particular test would cost them can attest. (People with high deductible or no health insurance often try to do this.) Providers and hospitals have different fee schedules for Medicare, private insurers, and self-pay

patients, so it's hard to get the right answer for every patient.

But Shah found that an exact dollar amount wasn't really necessary. "All you need to give people is an order of magnitude to change behavior. Zagat figured this out a long time ago—you know what a restaurant is going to be like based on one dollar sign, two dollar signs, and so on."

Shah says he originally thought he might study the issue, write a paper about what happened after telling doctors how much everything costs. But the more he talked to colleagues and his professors at Harvard, the more they told him, "You should start a nonprofit, a real grassroots effort" to do something about this.

And at the most inauspicious time, just as he was entering internship, Costs of Care was born.

DATA BASED

Costs of Care started out as a way to put cost information into the hands of doctors. "We've tried really hard to think about it from the perspective of a doctor in the trenches. What are the things that are in your direct control? What are the things at your discretion to change?" Shah says. Those are things that doctors "pull the levers" on: ordering imaging and other tests, prescribing medications.

Unable to give exact prices, Shah and his director of program initiatives, Michele Rhee (see sidebar), thought real stories from patients and physicians could illustrate opportunities to improve value. They began crowdsourcing (a phenomenon where vast numbers of people contribute information on a topic via the Internet, like Wikipedia)

through the costsofcare.org blog. Before long, they had hundreds of anecdotes from doctors, medical students and trainees, and patients about egregious charges, missed opportunities to save money, and the consequences health care bills were having on real people.

"The ones that get me really excited are the routine examples. Things like 'My doctor prescribed this medication and the co-pay was crazy, and nobody told me there was an alternative,'" Shah says. "That gets me going because it can happen to anyone, anywhere. We get these stories from New York, California, Alaska. And doctors will say, 'Oh, yeah, that happens all the time.'"

The anecdotes have become part of an annual essay contest that is judged by a panel of prominent physicians, policy-makers, and journalists. This year Costs

Care essays to illustrate how difficult it can be for a patient to find out how much a test or procedure will cost.

No doubt, Shah says, that was a legitimizing moment for Costs of Care. "We've had real impact. We're not just being rabble rousers."

UNDER PRESSURE

More than ever, doctors are facing pressure to think about costs. One mandate of the Affordable Care Act was the creation of Medicare accountable care organizations (ACO). ACOs create incentives for health care providers to lower health care costs while meeting performance standards on quality of care. With payment rewards linked to outcomes and lower costs, doctors will have more incentive to think about the value of the care they recommend.

"WE'VE HAD REAL IMPACT. WE'RE NOT JUST BEING RABBLE ROUSERS."

of Care will be awarding \$4,000 in prizes to stories that best illustrate the importance of cost-awareness in medicine.

Recently, two Institute of Medicine reports have looked at value and the cost of health care. The IOM reported that in 2009, \$750 billion was spent on unnecessary costs. The costs were attributed to unnecessary services, administrative costs, and fraud. That's about 30 percent of annual health care expenditures. In "Demanding Value from Our Health Care," the IOM turned the focus on empowering patients to question the value of their own care. They quote Costs of

Of course, under the Affordable Care Act, more citizens than ever will soon have health insurance. However, even if a patient has insurance, they feel the burden of ever-increasing health care costs in their annual premium and co-payment increases. In Massachusetts, where Costs of Care is based, 98 percent of the population has insurance. Many people choose high-deductible health insurance plans to meet the state mandate. These plans often require thousands of dollars in out-of-pocket payments before the insurance will pay anything.

Shah says, "In our clinics, there's more bottom-up pressure from patients to be thoughtful. Patients are asking, 'What is this going to cost me?'"

Costs of Care is also teaching doctors, residents, and medical students how to make better decisions, to do only what has benefit and will add value. They've developed clinical vignette videos with funding from the American Board of Internal Medicine Foundation. They're part of Costs of Care's Teaching Value Project, educational modules that articulate the points in patient encounters where doctors should consider the value of a potential test, procedure, or prescription before ordering it.

The videos also look at *why* these things are routinely done. For example, in the emergency department, "Doctors are sometimes preempting their future workload. If the diagnosis might be one of five things, they'll order labs for all five, rather than the one that is most common and most likely to be the diagnosis. If they order one, wait for it to come back, they'll have to do more work later, taking more time," Shah says.

"The Teaching Value Project looks at these incentives. In a 5-minute clinical vignette video we were able to plausibly include 10 distinct incentives to over-order tests because they are so commonplace," he adds.

GOOD STEWARDS

In 2010, ethicist Howard Brody called for specialists to identify the top five things that are done unnecessarily in their specialties as a step toward bringing down the cost of health care. The American Board of Internal Medicine (ABIM) Foundation has acted as a con-

BIRTH OF A NONPROFIT

Costs of Care had a serendipitous beginning, but like most of us, it was born in a hospital.

NEEL SHAH AND MICHELE RHEE

were friends as high school freshmen in New Jersey. Then Michele moved away, and they took separate paths.

Michele's path included a bout with cancer during college. Her diagnosis led her to pursue an MBA/MPH and a career in nonprofit patient advocacy. One day she was at Yale-New Haven Medical Center for an appointment when she saw Neel walk by in a white coat. They had dinner, and Neel filled her in on this idea he had.

"As a patient I had been through so many of the things he was telling me about—eight surgeries, one of which cost more than \$100,000," Michele says. Her parents, both professionals, had excellent insurance, but they had been hiding her medical bills from her so she wouldn't worry about the cost of her cancer treatment.

"[I]t was still absurdly expensive. I knew I was extremely lucky," she says. "To know that Neel was starting this nonprofit to help ensure that everyone would have that opportunity was just something that I had to be part of."

When it started, Shah says, Costs of Care "was very much like an after-school club. It was a nonprofit but it was really a bunch of people getting together to talk about ideas." Michele and other members of his board helped them incorporate and become a legal nonprofit organization.

"I was very fortunate to be working with Michele," he says. "Not only does she have the patient perspective, as an MBA she has the ability to operationalize all these ideas. Her official title at Costs

of Care is director of program initiatives but she functions a lot like a COO."

Michele adds, "Neel has a lot of great ideas, and great vision, and then I try to help make it happen."

Shah interjects, "A lot of my colleagues think in lists—that's a good quality in doctors. I sometimes think in exploding clouds."

The vision, the original exploding cloud, was simple: Doctors decide what goes on the bill, they should know how much things cost. When Neel entered Costs of Care in the Harvard Business Plan competition, the judges were skeptical. "This is such a simple idea, it's either been done before or there's something that you don't know," they told him.

But it was a solid business plan, and seed money from the competition helped them get off the ground.

Shah credits their success to being strategic from the beginning. "We called ourselves Costs of Care because it gets googled 3,000 to 5,000 times a day. Now costsofcare.org is the number one hit on Google when you enter those search terms. At the time we were the only organization solely dedicated to the role of doctors in health care spending. There was a huge first-mover advantage."

The fact that he was just an intern both helped and hurt. On the one hand, he was still in training mode, and he questioned everything. One of his mentors called it "zero-gravity thinking." He told Neel, "One of the reasons you've been so innovative is that you don't know any better."

On the other hand, in the hierarchical field of medicine, he was saying that culturally, doctors have to change the way they do things. "I was conscious of potentially being perceived as a young whipper-snapper telling the grown-ups what they should be doing better. [T]hat is never the position you want to be in," Shah says.

But eventually, the grown-ups started listening. Costs of Care has been in the *New York Times*, *New England Journal of Medicine*, quoted in an Institute of Medicine report, featured on NPR, and soon, *CBS News*.

Now they want to continue scaling up, including starting chapters of Costs of Care all around the country. They are developing a mobile application, and planning a widget for hospital ordering systems that reaches doctors at the teachable moments when they are considering a test or prescription. They estimate it will take about \$5 million to take Costs of Care to the next level.

That ambition led to another unconventional decision: Neel is putting off traditional fellowship training. When he graduates from residency next spring, he's taking a part-time clinical position in academic medicine so that he'll have protected time to scale his ideas.

"Some people think it's risky to veer of the traditional path, but I'm going to take this time and propel this forward. My wife, Julie ... God bless her, has always been supportive," he says, smiling. (Neel and Julie, an assistant professor of aeronautics and astronautics at MIT, have been together since high school.) "I'll be good. I'll have health insurance. That's the only thing that gave me pause. If I didn't have health insurance, I'd really question the wisdom of doing this."

“THE PHYSICIAN IS THE ONE WHO DECIDES WHAT GOES ON THE BILL, YET WE OFTEN HAVE LITTLE IDEA HOW THAT AFFECTS WHAT PATIENTS PAY.”

vener of specialty societies, setting a framework for them to draft and disseminate them through its “Choosing Wisely” campaign.

The idea has connections to Brown. ABIM Foundation made a grant to the National Physicians Alliance to support their “Good Stewardship Project,” which was headed by Stephen Smith, MD, former associate dean for medical education at Brown. The Good Stewardship Project created lists for family medicine, internal medicine, and pediatrics.

“We liked it and wanted to expand it to the specialty societies to increase awareness of waste and unnecessary care,” says Daniel Wolfson, ABIM Foundation’s executive vice president and COO.

Initially, nine specialty societies signed on, each issuing a list of five things patients and physicians should question before doing. Sixteen more will join this fall, and the list of recommendations will exceed 100.

In order to be included on a top-five list, the test or treatment had to be: 1) frequently done; 2) within the purview of the specialty; and 3) have evidence showing little or no benefit or greater risk than benefit. Examples include: “Don’t do imaging for low back pain within the first six weeks, unless red flags are present,” from the American Academy of Family Physicians, to “Do not repeat colorectal cancer screening (by any method) for 10 years after a high-quality colonoscopy is negative in average-risk individuals,” from the American Gastroenterological Association.

“These are not absolutes. These are conversations between physicians and patients,” Wolfson stresses.

Each recommendation cites a reference to its published evidence. “This may be a better method for translation of clinical guidelines,” says Wolfson. ABIM Foundation has partnered with *Consumer Reports* to get the word out to patients.

The American College of Physicians was one of the first societies who participated in Choosing Wisely. They also have their own initiative, “High-Value, Cost-Conscious Care,” that “connects two important priorities: helping our physicians provide the best possible care to their patients and reducing unnecessary costs to the health care system.”

Yul Ejnes ’82 MD’85 RES’88 is immediate past chair of the Board of Regents of the American College of Physicians, which, with 133,000 members, is the world’s largest specialty society.

Ejnes says these idea are not novel to him. “We were talking about these things back in ’85 to ’88 in the General Internal Medicine Residency at Rhode Island Hospital. We were taught to think about why we were ordering a test, to ask if there was a better way.”

Those lessons have stayed with him as a primary care physician at Coastal Medical in Cranston, RI. He uses one of the ACP’s top-five recommendations as an example: Don’t obtain screening exercise electrocardiogram testing in individuals who are asymptomatic and at low risk for coronary heart disease. “My practice has always been to forego routine EKGs on [such] individuals,” he says.

Still, there are barriers that get in the way of delivering just the right care to the right patient. Time is one, Ejnes acknowledges. “Certainly, it can take 5 seconds to order a test as opposed to 5 min-

utes to explain to a patient why he or she doesn’t need something.”

Those explanations—convincing patients they don’t need antibiotics for a virus, or an MRI for lower back pain—take good communication skills.

You also have to have the trust of the patient, Ejnes says. “You might even put that first, because you could have no time and average communication skills, but if they trust you, and you tell them they don’t need it, then that’s the end of the discussion.”

Research shows that patients do value the word of their physician. Ira Wilson, MD, is chair of the Department of Health Services, Policy and Practice in Brown’s Public Health Program. He studies physician-patient interactions—how they work, how they don’t—specifically around the issue of adherence to prescribed medication. Those relationships have interesting implications for cost, too, Wilson says. Patients who do not take their medications as prescribed cost the US health care system an estimated \$290 billion in avoidable medical spending every year.

In studying physician-patient discussions about HIV medications, Wilson says, “We found that there isn’t much conversation, even when you are dealing with these antiretroviral meds that are the first priority of care. Second, when those conversations do happen the talk isn’t helpful talk. There’s a lot more lecturing or directives, telling people what to do as opposed to taking a shared-decision making or patient-centered approach. We think that phenomenon is true across all kinds of medicines, not just HIV care.”

Wilson and colleagues are working

on ways to re-train physicians to have conversations that will be more effective with adults.

“Patients should be asking those questions about their care,” Wilson says, “but doctors have to be in a position to say ‘Yes, that’s a great question, but let’s pick it apart and see if going on that drug has any value to *you*.’ You could approach it by saying, ‘Ignore that, it won’t do you any good, believe me.’

“Another approach is, ‘You bring up a good point, I hear you. Can I share some information with you?’ You ask for permission and then you bring them through the costs and benefits. Doctors need to learn how to have conversations with patients about what’s worthless or of very little value, and risky.”

Doing fewer things—if done well—will reduce cost, and also revenue. That’s a necessary trade-off. Problems in the reimbursement system need to be worked out simultaneously. The present

encouraging hospitals and doctors to set up ACOs.

“That’s one thing that defines a profession—we think beyond our bottom lines,” Ejnes says. Unnecessary or wasteful care is “a fraction of all the activity. There’s certainly a lot of appropriate testing and procedures. I don’t think anyone is going to go out of business. Look at it this way: the cost of care is also putting strain on physician practices that want to provide health benefits to employees, so they will actually be saving money.”

ETHICAL IMPLICATIONS

Some physicians have balked at the idea of considering cost when caring for individual patients. They feel it is an ethical violation of their duty to the patient, that they should only consider the needs of the person before them, not society.

“That’s a nice approach in a world that doesn’t exist,” says Ira Wilson.

“THAT’S A NICE APPROACH IN A WORLD THAT DOESN’T EXIST.”

fee-for-service system provides incentive to do more, and no incentive for value. Neel Shah points out that the expansion of health care coverage in Massachusetts was done with the knowledge that the fee-for-service system would have to be dismantled. A new state law passed in 2012 is taking steps toward this, requiring Medicaid and all other state-financed health care programs to adopt alternatives to fee-for-service payment structures and

“That approach will do nothing but run us off the cliff faster than ever.”

The problem, he says, is largely cultural. “We have a culture among physicians and patients where doing something is always better than doing nothing, that a new thing is better than an old thing, and a complicated, expensive thing has *got* to be better than a simple thing. And those are absolutely wrong decisions.”


Added to that are deep-seated beliefs that physicians should not make deci-

sions based on cost and that they must do everything they can for their patients. “When you do something that has little or no chance of benefit you’re really taking money out of that patient’s pocket, because the next year, the [insurance] premium goes up,” Wilson says.

What we need to do, says Neel Shah, is change and broaden our ethical framework to include financial harm. “Medical debts are the leading cause of personal bankruptcy in this country. We have this ‘do no harm’ clause—the first thing we learn—and yet if we are bankrupting our patients, clearly we are not helping them.”

Oftentimes what is better for the patient is actually better for society, too. Societal resource stewardship and better patient care aren’t mutually exclusive. “Take generic drugs,” he says. “Huge win for the patient in front of you, better for society. No brainer, but we’re not even doing that well yet.”

In reality, who better to make a prudent decision about the allocation of resources than the doctor who knows the patient? The doctor is the only person who has all of the information, history, and knowledge of what is best for that individual person.

Yul Ejnes says cost-effective, high-quality care is within physicians’ reach. “We can ask ‘Will this test tell us anything new? Will it add value? Will it change the treatment I prescribe?’ If we ask those three questions, we can provide high value care and it doesn’t require an act of Congress, it doesn’t matter who wins the election, it doesn’t depend on insurance companies coming to an agreement. It’s just a doctor and a patient in an exam room.” 

BY KRIS CAMBRA

PHOTOGRAPH BY PATRICK O'CONNOR

5 QUESTIONS FOR PRESIDENT PAXSON

Brown's new president shares her first impressions.

FOR THE DIVISION OF BIOLOGY AND MEDICINE, the appointment of Christina Paxson seems like a perfect match. An economist, her National Institutes of Health-funded research examined the relationship between wealth and health status, taking her to Africa to study children orphaned by HIV. She came to Brown from Princeton, where she had been dean of the Woodrow Wilson School of Public and International Affairs. Recently, she told the *Providence Journal* that Brown's burgeoning School of Public Health is "one of the reasons I was very excited about coming to Brown, among many." She added, "At Princeton, I was always trying to work around the fact that we didn't have a medical school. Here I don't have to do that."

Brown Medicine asked the new president five questions about her initial impressions of Brown and the Division.



Could you describe your own research interests and your work as founder of the Center for Health and Wellbeing at Princeton? Will you be able to continue any of your own academic work or will that be on hold during your presidency?

I am an economist, and my research interests initially focused on international economic problems of labor supply, mobility, savings, inequality, and aging. Later on, I increasingly focused on the relationship of economic factors to health and welfare over the life course, particularly on the health and welfare of children. In 2000, I founded the Center for Health and Wellbeing in the Woodrow Wilson School of Public and International Affairs at Princeton University. The Center for Health and Wellbeing is an interdisciplinary research center, where researchers work on health, well being, and investigate the role of public policy on shaping quality of life. In addition, the Center established multidisciplinary graduate and undergraduate certificate programs in health and health policy. As for my own academic work, in my first year I know I will not have time for research, and will have to take pleasure in seeing the research of Brown faculty thrive. After that—we'll see.



BioMed faculty are thrilled to have an NIH-funded investigator as president. Given the flat funding of NIH's budget, how do you think Brown can best succeed in this competitive funding environment?

Brown has an exceptional faculty, and the attention paid over the last decade to expanding the faculty has been essential to ensuring we compete well

and provide them with an environment that cultivates critical multidisciplinary research. This means ensuring that faculty members have the infrastructure, tools, and equipment to enable ambitious levels of research, and providing the resources to help them prepare and submit proposals that address pressing challenges of national and international importance.

the beautiful and highly functional new building in the heart of the Jewelry District, the school's first-ever dedicated home. The school was well regarded even before opening this new facility last summer, and now has the potential to build on its profile and success. The building is an unmistakable symbol of two important University priorities: our dedication to our students, who are the

“My first priority has been to spend time getting to know the campus, the community, the people...”

for limited federal and other resources. During the past several years Brown has experienced growth in funding from the Department of Health and Human Services (DHHS), even as overall federal funding in this area has been essentially flat. DHHS-funded research has increased from \$67 million in 2008 to \$82 million in 2012—funding that includes important awards like the National Children's Study and support for Brown's Superfund Research Program.

To remain on and improve this trajectory we must continue to attract, retain, and support the most talented faculty members,

Of course, we must continue to make the case at the federal level, with the Congress and the Administration, that investing in university-based research is essential if we are to identify solutions to problems that affect society, advance innovation, and discover lifesaving medicines and treatments for diseases. Finally, it is important that we diversify our sources of research support, and look across all federal agencies, as well as to corporations and foundations, for opportunities to engage in meaningful research.

What are your impressions and thoughts about Alpert Medical School thus far?


Alpert Medical School has reached an exciting new stage, particularly with regard to medical education. This year's incoming class is the largest ever at 120 students. The class is only the second to enter since the University opened

building's primary beneficiary, and our commitment to being a constructive partner with the city of Providence.

On the research front, the School will have a major role to play in realizing the potential of the University's priority in the area of brain science, especially as it and its hospital partners complete the hiring of three key department chairs (in neurosurgery, neurology, and psychiatry). Of course, the School will face the challenges I discussed above with regard to the uncertain NIH budget.

You've stated that you see the Medical School and local health care as a way Brown can connect with and have a positive impact on the local community. Do you have particular ideas for how we can do that?

Brown contributes in meaningful ways to health care locally. Well over 35 percent of practicing physicians in Rhode Island were trained at Alpert



Medical School and its residency programs, and more than 40 percent are affiliated with Alpert Medical School. There is no question that the quality of health care offered to the residents of our state has improved as a result of the establishment of the medical school just three decades ago.

One area we are beginning to explore is finding ways to increase the number of primary care physicians in the state. There are a range of reasons that Rhode Island has a shortage of primary care physicians, not the least of which is the relatively low reimbursement rate. Together with Dean Wing, we have been seeking to be part of the solution by addressing the area within our jurisdiction: the pipeline. We offer high quality primary care education, and we need to

nationally. Health care and education are leading sectors of employment in Rhode Island. Through direct and indirect employment, research activity, and spending and other purchasing, health care means jobs. We need to be sure as a state we have the infrastructure in place to prepare the workforce for the careers that health care offers. Our new Executive Master's in Healthcare Leadership is a complement to the programs offered by other institutions to train nurses, pharmacists, physician assistants, and the range of allied health professionals.

Finally, we are thinking about the opportunities afforded by the new medical education building's location in the Jewelry District: public lectures. Several educational series, for example about the biology of aging, health care policy,

department chairs and center directors, with students and staff, and with leaders throughout Providence and Rhode Island. The candid conversations have revealed pride and enthusiasm for Brown's distinctive approach to teaching and research, as well as an inspiring commitment to excellence. I join Brown at a time when there are a number of priorities already under way, including establishing and supporting a School of Engineering, advancing an important Initiative in the Humanities, supporting the expansion of brain science, and proceeding with the process to establish a School of Public Health. I have also launched a planning process to consider priorities moving forward that will build upon the progress Brown has made in recent years. Among the areas that are

“ [W]e are beginning to explore ways to increase the number of primary care physicians in the state. ”

encourage more students to consider this as a field of expertise. This will require increasing financial aid for students so their choices are not influenced by potential debt-burden. With a grant from the Rhode Island Foundation, we have also sought to inspire students to consider primary care by increasing the mentoring available to them. There is more we can do, and I hope to have more to say in the near future about ideas we are considering.

Of course, health care continues to be an economic engine locally and

and personal health issues, have already begun or are in the works. We hope that the public will join us at open events like these.

As you begin your tenure, what is at the top of your priority list for the University as a whole?

My first priority has been to spend time getting to know the campus, the community, the people, and the full range of opportunities and challenges facing Brown at a more granular level. I have had the opportunity to meet with

most important in our planning will be to identify opportunities through more robust financial aid to attract and support an excellent, diverse, and global student body. We must also continue to foster and nurture faculty excellence, and develop signature academic initiatives that build on Brown's academic strengths, distinctive multidisciplinary culture, and commitment to integrating education and scholarship. Looking on the horizon, the University is gearing up to celebrate the 250th anniversary of its founding, which is exciting and a lot of fun. 

BY EILEEN O'GARA-KURTIS
ILLUSTRATION BY PAUL WEARING

Lights Will Guide You Home

A constellation of caregivers guides children and families through life's final journeys.

THE AMBULANCE RADIO bleats and crackles as Angela Anderson, MD, makes a call, her words fading in and out as the cell signal wavers on the way up Route 95. It's a moment of surreal juxtaposition—a blend of pragmatic reality and deep meaning.



THIS IS THE SPACE IN WHICH ANDERSON LIVES.

Anderson, associate professor of pediatrics and emergency medicine and director of Pediatric Pain and Palliative Care at Hasbro Children's Hospital, is on her way back to the hospital from a house in suburban Rhode Island where a family is savoring precious, at-home time with a dying child. "Sometimes people just need a little normal," Anderson explains.

The little boy might come back to the hospital tonight, or tomorrow, or next week. He may never come back. Life wanes in its own time. For now, there is a family making memories.

Helping children and families navigate chronic illness—and, sometimes, the elastic, unpredictable transition between life and death—is Anderson's mission. She is the first dedicated pediatric palliative care specialist at Hasbro Children's Hospital—officially part-time, but unofficially 24/7.

In partnership with spiritual care coordinator Susan Lake, Anderson follows the flow of children's lives, taking care of them in the hospital, at home, and wherever they need her. (Once, she accompanied a boy on a final, long-yearned-for trip to Yankee Stadium.) She also keeps in touch with grieving parents, sometimes for a good long while after a child has passed away. Some children are in her care for a painfully short time, others for years.

Like many professionals who work in palliative care, Anderson finds that the rewards of the work are deep and wide.

"Birth and death are sacred times, and it's a profound experience to share

those times with families," she says. "This work is such a gift to me. It's there in the way I look at death now, in the way I am with family and friends ... in the way I approach the day. You pay more attention to trees, to a beautiful sky. You are less whiny about traffic jams. You make sure you say 'I love you.' I've learned a little bit about how to live my life from each family."

Anderson has a naturally ebullient personality—"Holy guacamole! You look a lot happier today!" she exclaims, boarding a hospital elevator and greeting a child she treated the night before—and she says that the searing tragedy of life extinguished so early is leavened a little by the bright spark of childhood.

"Kids care about today, not next year," Anderson says. "My job is to make them hurt less and not feel alone ... today."

"They're incredibly strong," she adds. "They routinely comfort their parents. I've had 5-year-olds taking care of *me*. 'Are you sad?' they'll say. 'Do you need a hug?' Nobody wants to be crying all the time."

PALLIATIVE CARE IS NOT OPTIONAL

Anderson comes to palliative care via Hasbro's emergency department, where she practiced pediatric emergency medicine for 17 years. There are clinical bridges between the two specialties—managing pain and anxiety and drug interactions, dealing with respiratory difficulties and other acute episodes due to a chronic illness—but, arguably, most

important is the innate ability to provide warm, calm, clinically excellent support for children and families in crisis.

"Angie is a force for good," says Sylvia Kay Hassenfeld Professor of Pediatrics Robert Klein, MD, chair of Pediatrics. "This is a program that functions mostly on heart, and there is no limit to what she will do to help a family."

Klein created Anderson's position last year, building on the work of Hasbro's Max All Star Kids Program—an interdisciplinary support program for families, launched by the parents of Max Schloss, a child whose life was cut short by Tay-Sachs disease just before his second birthday—and creating a mechanism for coordinating multiple ad hoc palliative care solutions devised by clinicians on a patient-by-patient basis.

"A single child can be treated by several specialists at the same time," says Anderson. "Part of my job is to coordinate that care."

"Palliative care is not optional ... it's an integral component of quality care, and it's essential for any family with a child who needs chronic care or suffers from pain or disability," says Klein, noting nonetheless that much of the service that Anderson provides is unreimbursed by third-party payers. "There's no way to charge for this kind of care, so we're funding it from philanthropic resources. It's very early now, but we have big dreams for growing the program."

Klein's vision includes clinical, educational, and research components. "We train some of the most wonderful pediatricians here," he says. "We need to set research-driven guidelines for providing palliative care as part of our educational and clinical missions."

“Sometimes people just need a little normal.”

IN THE NAME OF MAX

“Palliative care is not just for kids with cancer, and the need for support encompasses all of life ... not just in the hospital, and not just at the end of life, and not just for the child,” says Maura Taylor, PT, MBA, program administrator of the Children’s Neurodevelopment Center at Hasbro. “There is an underlying sense of grief for many families of children with special needs. There are the logistical challenges of incorporating the child into family life, but there’s also a sense of a dream that was not fulfilled, and grief that comes in surges as the child ages.”

“It’s hard when it’s time for first grade, or the prom, and those things don’t happen,” she explains. “Sometimes it’s very simple things, like not being able to take your child to story hour at the library or celebrate the same milestones as other parents. Sometimes it’s the anger and isolation of having your whole world revolve around your child’s medical plan of care. If you’re cut off from school and other child-centered routines, you’re also cut off from the support of other parents.”

Max Schloss was diagnosed with Tay-Sachs at the age of 11 months. His parents, Cynthia and David, responded

by creating a new world for their little boy.

“They were very assertive and definitive about what they wanted for Max’s short life,” Taylor remembers. “They didn’t want him to spend his life in the hospital ... they wanted to keep him at home, with his family. We supported them in getting services where they needed them, such as bringing Max’s therapy to him at home rather than in the hospital. Even when Max reached the end of his life, at a time when many children who need his level of medication would be in the hospital, he stayed at home.”

Max’s experience informs the treatment of all children at Hasbro Children’s Hospital, Taylor notes. “Palliative care needs to go to the child,” she says. “Some of our kids have been at home—in a wheelchair, perhaps, but relatively healthy—for much of their lives. The hospital is a strange place, not a place of comfort, for them.”

Max’s family ultimately raised funds to create the Max Schloss Foundation and crystallize the services he received within the Foundation-funded Max All Star Kids Program, addressing a full spectrum of needs shared by families of children with chronic illness or special needs. “When you treat a child, you are

working with both the child and the family,” Taylor explains, also noting that The Joint Commission now considers depression screening part of a pain management protocol. “A mom who is in severe emotional pain affects the child.”

At the Children’s Neurodevelopment Center, support includes not only collaborating with Anderson and other clinicians to provide palliative care but also offering social support for parents, siblings, and other family members through a program of formal and informal contacts. There are respite days for parents, during which Center staff babysit and let parents go to a movie, or lunch, or just take a deep breath. There are holiday parties for families. And there are special events like Dream Night at the Zoo, when Providence’s Roger Williams Park Zoo opens especially for children in the hospital’s care.

Taylor remembers a mother who initially couldn’t bring herself to leave her infant, who had Down syndrome, with the staff. (“She said, ‘I don’t even want my own mother to know how much it takes to feed him.’”) There was a little boy—a sibling of a child in the Center’s care—who stared at the baby in Taylor’s arms during a story hour. “I have to go tell my mom,” he said. “That baby looks

Meet the

Rachel Rackow is
Alpert Medical School's
first fellow in
palliative medicine.

Fellow

Six years ago, when Rachel Rackow MD'09 RES'12 was halfway through medical school, her phone rang one evening as she was heading out to a concert. It was her mother, bearing devastating news. Rackow's 24-year-old sister, Emily, had not shown up at work that day. A visit to her Washington, DC, apartment by co-workers and police revealed that Emily had died of a brain aneurysm that morning.

The circumstances of Emily's death forced her family to grieve in shock. But it doesn't have to be that way for every family. Rackow's mission is to prepare people for the full continuum of life, right up until the end.

In June, Rackow was named Alpert Medical School's first fellow in palliative medicine, under the auspices of a new agreement that makes Home & Hospice Care of Rhode Island Brown's major teaching affiliate for hospice and palliative medicine.

"Home & Hospice Care is well known for providing skillful and compassionate care. We are pleased that this agreement formalizes our long-standing relationship with them and our commitment to ensure that Alpert Medical School students have been trained in the specialized and unique care of patients and their families in the last months and weeks of life," said Edward J. Wing, MD, dean of medicine and biological sciences, in announcing the affiliation.

Wing noted that Brown enjoys a long and distinguished relationship with HHCRI, dating back to the role of Dean Emeritus Stanley Aronson, MD, in founding the organization.

"Elsewhere in the world, death is more likely to be seen as part of life—no less painful, but part of life," says Rackow, who holds a master's in public health, with a concentration in

international health, from Harvard University and has worked in Rwanda and Burundi. "In this country, it's the elephant in the room that no one wants to acknowledge. We do everything we can to stave off death, rather than helping people die well."

"One of the biggest issues during my internal medicine residency was dealing with end-of-life issues, talking to families about whether they were going to pursue palliative options when people weren't doing well," she remembers. "The idea that treatment is not always going to be curative is such a jarring concept for a lot of people. Whenever I helped a family make a decision, it was always very satisfying."

"When I tell people that I'm going into palliative care medicine, they often say 'That's so depressing,'" she continues. "I think it's much harder to watch people go through painful—and often futile—treatments at the end of life. It's so much better to be able to help people have a good death, or to give them medication and see their pain symptoms relieved."

In addition to helping to frame the conversation about end-of-life care, Rackow notes, palliative care specialists develop a finely-honed, very specific repertoire of clinical skills. "When I did my [medical school] rotation with Dr. Martin, I got a taste of what people in the palliative care world know about pain management and symptom relief—that medications that we use for anxiety can also help with nausea, for instance. I'm looking forward to exploring the clinical side."

Rackow starts her fellowship in October. She's been busy focusing on the very *beginning* of life—getting acquainted with her new daughter, Ella, who was born in June and named for her sister Emily.

just like my brother!” And there was a father who agreed to participate in a hospital-sponsored cake-decorating event for parents—designed to take them out of their day-to-day routine—and began to open his heart and accept peer support.

Meeting families beyond the borders of an office or clinic visit or an acute medical episode sharpens the empathy and skills of the clinical staff members who volunteer their time, Taylor says. “They begin to see it in a different way: this is what it takes, every day, to take care of this child.”

When the end is finally near, says Taylor, it’s a painful transition for the provider as well as the family. “It’s very hard to enter a new phase of treatment, even though it’s clear on an intellectual level that it’s a continuum, that we’re

internist in private practice, on staff at the state-run Eleanor Slater Hospital, and as part-time medical director at Home & Hospice Care of Rhode Island (HHCRI), Martin became HHCRI’s full-time medical director four years ago. In addition to overseeing Alpert Medical School’s new fellowship in palliative medicine (see sidebar) in affiliation with HHCRI, and seeing patients at the agency’s Philip Hulitar Inpatient Unit, he collaborates with hospital-based clinical teams and takes care of patients in a wide range of settings, from home to hospital to nursing home to residential hospice.

“One of our challenges is that we still often see patients who have limited life expectancy too late,” Martin says. “There is still a widely shared belief that if you pursue palliative care, you are throwing

end-of-life discussions. Martin notes that the need for palliative care specialists will soon increase exponentially, as Baby Boomers age and the length of time that patients survive with chronic illness—perhaps requiring pain management and other palliative services—continues to grow.

“These are not easy discussions,” he says. “We need to have trained medical professionals with stellar communication skills who can help.”

HHCRI’s new affiliation with Alpert Medical School “raises the bar by training palliative care specialists at the fellowship level,” Martin says. “Given Brown’s strengths across the board—from public health to geriatrics to all of the clinical specialties that touch on chronic illness and end-of-life issues—you’d be hard-pressed to find a richer

“Why not do whatever you can do to control pain?”



not ‘giving up’ or ‘switching’ to anything. As a physician whose dedicated purview is palliative care, Angie plays a key role in supporting the staff.”


RAISING THE BAR

It’s a role that Clinical Associate Professor of Medicine Edward Martin ’76 MD’79 MPH’07 knows well.

After more than two decades as an

in the towel. I tell families they can keep the towel ... but why not do whatever you can to control pain and other symptoms at the same time?”

Numerous studies demonstrate that palliative care can actually extend life for patients with terminal illness and reduce costly and stressful hospital readmissions. There is also growing evidence that patients want to have frank

reservoir of academic talent and insight anywhere else. We look forward to drawing on that expertise and contributing to knowledge in this area as our fellowship program grows.” 

Eileen O’Gara-Kurtis is the founder and president of Silver Branch Communications. She is a frequent contributor to Brown Medicine.

PROMOTIONS

Timed Trial

Fourteen faculty members earn the title “Professor.”

Despite what you might see in the movies, becoming a professor is no easy feat. First, you have to do all the teaching, research, and sometimes, clinical care, that qualify you to even try. Then there’s the dossier, those articles of evidence that prove you are worthy of the title. Finally, it’s all put under the microscope, scrutinized by the Office of BioMed Faculty Affairs, departmental and university committees, and then the administration, all the way up through the University’s Corporation. The end result, though, makes it all worth it: you’re a professor at *Brown*.

BIOMEDICAL FACULTY PROMOTED TO FULL PROFESSOR 2011-2012

DOUGLAS ANTHONY, MD, PHD

Professor of Pathology and Laboratory Medicine

Doug Anthony is chief of pathology at Rhode Island Hospital and The Miriam Hospital and leads the clinical, educational, and research pathology programs for Lifespan. Anthony will help bridge pathology and the neurosciences through the Norman Prince Neurosciences Institute, and will help to further develop the personalized medicine model. Anthony came to Brown from the University of Missouri, where he served as

chair of the department of pathology and anatomical sciences and professor of neurology. At the University of Missouri Health Care Center he served as chief of pathology and medical director of pathology clinical laboratories. He also served as a pathologist at the Harry S. Truman Veterans Administration Medical Center, Women and Children’s Hospital, and the Ellis Fischel Cancer Center, and as a neuropathologist for the Office of the Medical Examiner in three counties in Missouri. He has won numerous awards, including the Dr. Edison H. and Sallie Y. Miyawaki Teaching Award in

Neurosciences at Harvard Medical School and the Order of Socrates award at the School of Medicine at the University of Missouri. He earned his PhD in experimental pathology and medical degree from Duke University. He completed his residency in pathology and a fellowship in neuropathology at Duke University Medical Center. Anthony’s research interests include the biology of axons and its relevance to diseases of peripheral nerves, and the pathobiology of brain tumors.

LINDA CARPENTER, MD

Professor of Psychiatry and Human Behavior

Linda Carpenter studies the biology and treatment of mood disorders at Butler Hospital. Her work involves characterization of biological correlates of depression and anxiety, and discovery of risk markers such as neuroendocrine/neuroimmune stress response, inflammatory processes, and genetic risk markers as mediators of biological consequences of early life adverse environment. Carpenter has also conducted clinical trials of novel brain stimulation therapies, such as vagus nerve stimulation, transcranial magnetic stimulation, and deep brain stimulation for medication-resistant depression. She received her medical degree from the University of Pennsylvania and went on to complete an internship in internal medicine, residency training in psychiatry, and a clinical neuroscience research fellowship at Yale University. She is the recipient of many honors and awards, including the Dean’s Teaching Excellence Award from Brown Medical School (2001) and the Pfizer/SWHR Research

Scholar Award (2002-05). She became a Distinguished Fellow of the American Psychiatric Association in 2007 and was cited on the *U.S. News & World Report* Top Doctors list in 2011.

MELISSA CLARK, PHD

Professor of Epidemiology, Obstetrics and Gynecology

Melissa Clark is currently the associate director and director of primary data collection activities within the Center for Population Health and Clinical Epidemiology. Clark is a survey methodologist whose interests integrate survey research methods with women's health and underserved populations in health care. Her current research aims to better understand the individual, social, and environmental barriers and facilitators to health and well being among individuals who traditionally experience disparities in health status and access to quality health care. Before her faculty appointment at Brown, Clark received her PhD in public health sciences at the University of Illinois at Chicago School of Public Health, where she concentrated in quantitative methods and gerontology. She then completed a fellowship at Brown's Center for Gerontology and Health Care Research. She has served as the associate editor of *Translational Behavioral Medicine: Practice, Policy, Research* since 2010 and is also a recipient of Alpert Medical School's Dean's Excellence in Teaching Award.

DAVID EGILMAN, MD, MPH

Clinical Professor of Family Medicine

David Egilman founded and helps manage a non-profit organization called Global Health through Education Training and Service (GHETS). GHETS sup-

ports South-South exchanges between medical and nursing faculty in developing countries. These support policy initiatives that promote the development of primary care training and service models, in opposition to almost every other international health funding model which uniformly support vertical (malaria, TB, HIV) interventions. The priorities of the organization are women's empowerment, water and sanitation, food, and medical interventions. Egilman's organization does not conflate "medical" care with cost-effective interventions that improve health. Egilman has also served as an expert witness at the request of victims in cases involving toxic substances, pharmaceuticals, and medical devices. He also publishes on corporate corruption of science.

JAMES KLINGER, MD

Professor of Medicine

James Klinger currently serves as the medical director of the Pulmonary Hypertension Center at Rhode Island Hospital. Klinger's clinical research focuses on the use of natriuretic peptides, nitric oxide, and other investigational agents to treat adult patients with pulmonary hypertension. He is also interested in the treatment and prevention of venous thromboembolism. Klinger graduated from the Medical College of Wisconsin, completed his residency in internal medicine at the Medical College of Pennsylvania, and completed a fellowship in pulmonary and critical care medicine at Brown. He is the author of numerous peer-reviewed publications and is an associate editor of the journal *Lung*. Klinger has also received many honors and awards, including the Alpert

Medical School Department of Medicine's Beckwith Family Award for Outstanding Teaching. He was featured on the Consumer Research Council of America's "Guide to America's Top Physicians" in 2006 and was named one of the "Best Doctors in America" in 2007. He is chair of the Pulmonary Vascular Network Steering Committee for the American College of Chest Physicians and is a member of the pulmonary circulation assembly of the American Thoracic Society, where he serves as the current chair of the program committee.

JONATHAN KURTIS, MD, PHD

Professor of Pathology and Laboratory Medicine

Jonathan Kurtis '89 PhD '96 MD '96 has been director of the Lifespan Center for International Health Research at Rhode Island Hospital since 2005. Kurtis' work has applied the techniques of molecular biology, immunology, and population biology to identify vaccine candidates for both malaria and schistosomiasis in east Africa and the Philippines. He has led studies in Kenya, including a population ecology study on the coast, and has also studied schistosomiasis immunity since 1993, participating in field-based data collection in the Philippines, China, and Brazil. Kurtis received his medical degree from Brown and completed his post doctoral training in malaria immunepidemiology at the Walter Reed Army Institute of Research in Kisumu, Kenya. He completed a residency training program in clinical pathology and fellowship training in transfusion medicine at the University of Pennsylvania. Kurtis is the recipient of numerous awards and

PROMOTIONS

honors, including the Dean's Award for Excellence in Teaching and Lifespan's Bruce M. Selya Award for Excellence in Research.

MARTHA MAINIERO, MD

Professor of Diagnostic Imaging

Martha Mainiero has served as the director of the residency program in radiology at Brown since 2001. She is a nationally recognized leader in radiology education and is on the Board of Directors of the Association of Program Directors in Radiology. She has multiple publications and invited lectures in the field of graduate medical education in radiology, and her clinical field of expertise lies in breast imaging and intervention. Mainiero graduated from Tufts University School of Medicine, and then went on to Yale University, where she completed her residency training along with a fellowship in breast and thoracic imaging. She serves as the director of breast imaging at the Anne C. Pappas Center at Rhode Island Hospital and was elected a Fellow of the American College of Radiology and of the Society of Breast Imaging in recognition of her exemplary research, publication, and leadership in the areas of radiology education and breast imaging.

MICHAEL MIGLIORI, MD

*Clinical Professor of Surgery
(Ophthalmology)*

Michael Migliori '79 MD'82, P'11, '12, '14 is currently ophthalmologist-in-chief at Rhode Island Hospital and has been the director of Ophthalmic Plastic and Reconstructive Surgery at the hospital since 1989. Migliori specializes in oculoplastic, reconstructive, and cosmetic laser

surgery and is currently president-elect of the American Society of Ophthalmic Plastic and Reconstructive Surgery. He is also a Fellow of the American Academy of Ophthalmology and the American College of Surgeons. Migliori received his undergraduate and medical degrees from Brown and went on to Sinai Hospital of Detroit, MI, for residency training program in ophthalmology. He completed a fellowship in oculoplastic surgery at the University of Illinois Eye and Ear Infirmary and Michael Reese University of Chicago Hospitals. Migliori has been published in many peer-reviewed journals, including *The American Journal of Ophthalmology*. He has also received various awards throughout his career, including the Rhode Island Medical Society's Charles L. Hill Award in 2009.

ELIZABETH NESTOR, MD

Clinical Professor of Emergency Medicine

Elizabeth Nestor has been involved in the clinical teaching of emergency medicine to Brown residents, medical students, and undergraduates since 1994 and is currently an attending physician at the Rhode Island Hospital Andrew F. Anderson Emergency Center. She is a Fellow of the American College of Emergency Medicine and a member of the Rhode Island Medical Women's Association (RIMWA). Nestor is a member of the RI Board of Medical Licensure and Discipline, an examiner for Oral Boards in Emergency Medicine, and a member of the Academy of Women in Academic Emergency Medicine. She received her medical degree from Northwestern University Medical School and completed residency training in emergency medicine at the Medical Center of Delaware.

Nestor has been published in a number of peer-reviewed journals, including *Academic Emergency Medicine*. She has received numerous awards throughout her career, including a Brown Medical School Teaching Excellence Award and RIMWA's Woman Physician of the Year Award in 2008. She received the Jacob Franaszek Faculty Teaching Award in 2012.

RICHARD NOTO, MD

Professor of Diagnostic Imaging (Clinical)

Richard Noto currently serves as the director of the Division of Nuclear Medicine at Rhode Island Hospital. He is board certified in both diagnostic radiology and nuclear medicine. His clinical and research interests revolve around Brain SPECT and Oncologic PET. Noto graduated from the University of Rochester Medical School and completed a residency in diagnostic radiology at New York University, followed by a fellowship in nuclear medicine at the University of Pennsylvania. Noto has received numerous honors and awards throughout his career and is a Fellow of the American College of Radiology and the American College of Nuclear Medicine. He served as president of the Radiological Society of Rhode Island (1997-1998), is a former president of the New England Chapter of the Society of Nuclear Medicine, and is currently the secretary/treasurer and a member of the Executive Board of the Society of Nuclear Medicine and Molecular Imaging.

THOMAS O'TOOLE, MD

Professor of Medicine

Thomas O'Toole has dedicated the past two decades to researching and providing health services for the homeless.

O'Toole is now the national director of the homeless veteran PACT program, based on the Providence VA model.

He founded the primary care clinic for homeless veterans at the Providence VA Medical Center, which strives to improve the health of patients, help each patient realize his or her potential, and also address the quality of life issues that affect health status. O'Toole is now the national director of the homeless veteran PACT program, a program that sets up medical homes for homeless veterans around the country based on the Providence VA model. Before beginning his work at the Providence VA, O'Toole served as associate dean of curriculum at Georgetown University School of Medicine, where he oversaw an educational reform initiative that placed greater emphasis on professionalism and service learning within the school's curriculum. O'Toole received his medical degree from the University of California, Davis, in 1991.

HOWARD SAFRAN, MD

Professor of Medicine

Howard Safran currently serves as the director of Lifespan oncology cancer research and medical oncology chairman of the Radiation Therapy Oncology Group. He specializes in hematology/oncology and is primarily affiliated with The Miriam Hospital. Safran's research has helped to develop new treatments for upper gastrointestinal malignancies, and he has aided in leading the Brown University Oncology Group, of which he

is medical director, to national prominence. His particular method of treatment for the management of esophageal cancer is emerging as a standard of care in North America and Europe. Safran is also a member of Cancer Therapy Evaluation Program's esophagogastric and pancreatic task force, and he has led the investigation of targeted agents with chemotherapy and radiation to improve treatment for pancreatic cancer. Safran received his medical degree from the Boston University School of Medicine and completed his residency and fellowship at Boston Medical Center.

SELIM SUNER, MD


Professor of Emergency Medicine, Surgery, and Engineering

Selim Suner '86 ScM '87 MD '92 RES '96 is the director for Emergency Preparedness and Disaster Medicine at the Rhode Island Hospital Department of Emergency Medicine. Suner is the team leader of the Rhode Island Disaster Medical Assistance Team, and has responded to multiple disasters in this capacity, including the aftermath of Hurricane Katrina and the attacks on the World Trade Center. He participates in many committees working on disaster preparedness at the local, state, and national level, and is the chairman of the Rhode Island Hospital Emergency Preparedness Committee. Suner completed

a master's degree in biomedical engineering at Brown, where he also received his medical degree. He was in the first graduating class of the Brown/Rhode Island Hospital Residency Program in Emergency Medicine, and served as chief resident. He was awarded the Society of Academic Emergency Medicine Neuroscience Fellowship in 2003, and his research interests include neural control of movement, disaster and mass gathering medicine, and carbon monoxide toxicity.

KAREN TASHIMA, MD

Professor of Medicine

Karen Tashima is director of HIV clinical trials at The Miriam Hospital and is a leader in the field of infectious disease. Tashima entered the field of HIV care at The Miriam Hospital in 1995, where she was involved in some of the most important HIV research trials of the time, including the initial trials of indinavir. She then became an investigator in the landmark studies of efavirenz in combination with AZT and 3TC, the combination that has become one of the most successful HIV treatment regimens. Tashima received her medical degree from Columbia University College of Physicians and Surgeons and completed a fellowship at Massachusetts General Hospital. Her areas of expertise include autoimmune diseases, immunology, HIV, and bacterial infections. She is currently the program director for Alpert Medical School's Fellowship in Infectious Diseases. 



To see a list of faculty promoted to associate professor, go to <http://brownmedicine.magazine.org>.

MOMENTUM

Over the Top

Longtime donors lead the BMAF past the million-dollar mark.

This is a watershed moment for Alpert Medical School. The School's first dedicated building celebrated its one-year anniversary in August. Its cutting-edge classrooms and soaring spaces have already strengthened the community, enhanced education, and catalyzed the neighborhood's growth. The Brown Medical Annual Fund (BMAF) also reached a landmark this year: alumni, parents, students, faculty, staff, and friends donated more than \$1 million to the 2011-2012 campaign, a record amount and nearly 15 percent more than last year.

Behind this success lies the generosity of two of the most dedicated and prominent supporters of Alpert Medical School: Chancellor Emeritus Artemis A. W. Joukowsky '55 and Professor Emerita of Old World Archaeology and Art Martha Sharp Joukowsky '58, P'87, GP'13, '14. The Joukowskys are the top individual donors to the Medical School in its history and among the most committed to the School's philanthropic efforts. Mr. Joukowsky chaired the Medical School's first campaign, raising nearly \$75 million to support scholarships, programs, and facilities.

The Joukowskys' gift to the BMAF put the fund over the \$1 million goal for the year. The Joukowskys were also honored this year as inaugural members of the Dean's Circle, a giving society into which they were welcomed at a dinner



Art Joukowsky presenting the eponymous award last March.

The Joukowskys are the **top individual donors** to the Medical School **in its history.**

at the home of Dean Edward Wing and Dr. Rena Wing.

The Joukowskys are connected to yet another recent milestone for Alpert Medical School and for the entire Brown community: Ruth Simmons' departure after 11 years as University president. Simmons was the 2012 recipient of the Artemis Joukowsky Award. The award—named by the Brown Medical Alumni Association (BMAA) after Mr. Joukowsky, who was also its first recipient—is given by the BMAA to recognize a non-physician for dedicated service to Brown's Medical School. At

this year's award presentation, Mr. Joukowsky noted in his remarks that Alpert Medical School has benefited from Simmons' fearless drive and tireless energy, adding: "I salute you, Ruth, with all my heart and soul!"

It is also, of course, the Joukowskys' own indefatigable drive and spirit that have helped to advance Alpert Medical School and to ensure its continued growth. As the School looks to a promising future, one thing is clear: the Joukowskys will be there at every milestone, heart and soul.

—Kylah Goodfellow Klinge

ADAM MASTOON

ALUMNI ALBUM

CHECKING IN WITH BROWN MEDICAL ALUMNI



COMMENCEMENT 2012
OPENING
CELEBRATION

CLASSNOTES

1975

Arthur Horwich '73, Sterling Professor of Genetics, professor of pediatrics, and a Howard Hughes Medical Institute investigator at Yale School of Medicine, was named co-winner of the Shaw Prize in Life Science and Medicine. Horwich will share the \$1 million prize with Franz-Ulrich Hartl of the Max Planck Institute of Biochemistry. The two were honored for their contributions to the under-

standing of the molecular mechanism of protein folding. The Shaw Prizes are dedicated to "furthering societal progress, enhancing quality of life, and enriching humanity's spiritual civilization."

HIT US UP

Career news, weddings, births, reunions...it's all good. Go to med.brown.edu/alumni and click on "Updates and Class Notes."

HANG LOOSE: (Top, left to right) **Eric Mao** '07 MD'11, **Jessica Chiam**, **J. J. Eno** '08 MD'12, **Aaron Chiam**, and **Michelle Tsang Mui Chung** MD'12 kick off the festive weekend. (Bottom) **Keen Award** honoree **Ed Feller** greets well-wishers.

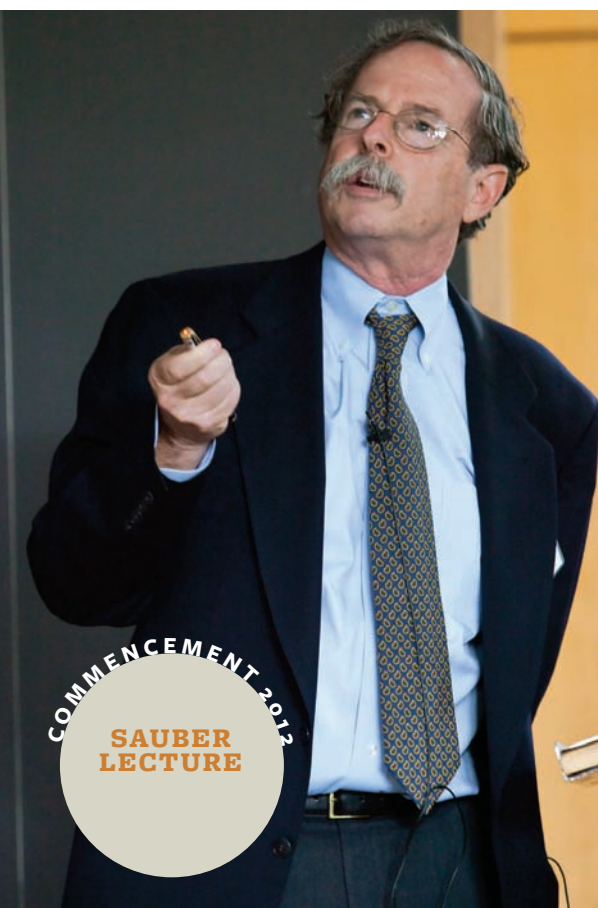
ADAM MASTOON (2)

ALUMNIALBUM

Art was recently back at Brown to be inducted as an alumni member of the Medical School's Alpha Omega Alpha Honor Society chapter and to deliver the Ruth Sauber Distinguished Alumni Lecture over Commencement-Reunion Weekend.

1976

Francis M. Domurat '72 is the medical director of Baptist Oncology Associates, which recently opened a new facility in Corbin, KY. Previously, he had a successful medical oncology practice in Alaska that lasted over two decades and culminated in the creation of the private Anchorage Cancer Care Center.



IT'S ELEMENTARY: Sauber Lecturer Art Horwich '73 MD'75 explains protein folding.

“Providence and New Orleans are both very special and unique places and I’ve been lucky to enjoy both.”

1981

Tanya Powel See **Robert Powel '81 MD'85.**

1982

William Jeffrey Long writes: “After 28 years in the Air National Guard, the last seven of which involved an at least monthly commute between my home in the greater New Orleans area and my last unit in Hartford, CT, I transferred to the USAFR at Kessler, AFB, in nearby Biloxi, MS. I was the State Air Surgeon for the Connecticut Air Guard. We passed our last medical inspection with one of the highest scores in the USAF. The Fighter Wing, which was part of the Flying Tigers in WWII, traded in its fighters for transport planes. When the last member came back from the Middle East, I decided it was time to pass the torch and spend more time at my practice and closer to home. I was not ready to retire from the Guard and USAF, as it has been the best part-time job ever, so I transferred to the USAF Reserve. I am now the liaison between the Active Duty and USAF Reserve Hurricane Hunter unit at Kessler. Being in a large USAF teaching hospital and educational base is a lot of fun compared to a small Guard base, and surprisingly a lot less work. The planes are pretty neat, the mission is very important to the Gulf of Mexico, and the facilities are great.

“As always, I am enjoying my private cardiology practice here and watching my boys grow. One of the docs in my

practice was an intern at Charity with me and the senior partner was chief of Cardiology at Tulane while I was an intern there, so I am not with strangers at all. Sorry I missed the reunion, but over the last seven years I have spent a lot of time with friends and family in the greater Providence area and watched the changes as well as the consistency on the Brown campus. Providence and New Orleans are both very special and unique places and I have been very lucky to be able to enjoy both.”

1985

Robert S. Powel '81 and Tanya Powel MD'81 have joined Physician Group of Utah in the Salt Lake Senior Clinic at Jordan Commons. Robert is an internist specializing in geriatrics and Tanya is an internist specializing in adult medicine and geriatrics.

1986

Augustine “Gus” Manocchia has been honored by the Rhode Island Free Clinic at its third annual Founder's event. Gus is chief medical officer and vice presi-

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COMMENCEMENT 2012
FIELD
DAY



FIELD FORCE: (Top, left) Dave Binder marked his 25th year playing Brown Reunion. (Top, right) David Feiner '72 MD'77 and Nancy Feiner enjoy the med alum tent. (Left) Jeff Hines '83 MD'86 and Sivan Hines '84 MD'87 mix it up.

Sivan Hines has become a fanatical “wrestling mom”—even scouting opposing teams!

dent, provider relations, at Blue Cross Blue Shield of Rhode Island. In this role, he is working to strengthen primary care in Rhode Island by helping physicians transition to the patient-centered medical home practice model. He is a volunteer physician at Rhode Island Free Clinic.

1987

Mark Hosley joined NeuroHealth and is practicing neurology in East Providence and Warwick, RI.

Sivan Hines '84 reports that she has become a fanatical “wrestling mom” as a huge sideline supporter—even scouting opposing teams!

Dean Donahue's son Trevor graduated from college in May. His oldest daughter is a junior in college and spent the last semester in Africa. He coaches the baseball team of his two youngest daughters, ages 9 and 6.

Brendan Magauran '82 and **Ellen Hilsinger** '83 MD'87 have three children. Their son Brendan graduated from college in May, son Dean just finished his freshman year of college, and daughter Kate is a junior in high school.

Jonathan Zuckerman '84 has been in Maine since 1999 at Maine Medical Center working in pulmonary/critical care/e-critical care and directing a growing adult cystic fibrosis program.

Jackie Wisner has three active girls as well as various dogs, cats, parakeets, and even horses.

Gary Belkin '84 is currently an associate professor and director of global mental health at New York University.

Bill Brown '83, P'15 is currently at NeuroPediatrix PC, Inc., a private pediatric neurology practice in Seekonk. His son Ryan is a student at Brown.

1988

Heidi Auerbach '84 received the Leonard Tow Humanism in Medicine Award during commencement ceremonies at Boston University School of Medicine,

ALUMNIALBUM

where she is an assistant professor of medicine. She was also named among *Boston Magazine's* "Top Docs" in geriatric medicine last year.

1995

Atul Butte, PhD '91 MMS'95 was a presenter at TEDMED 2012. Chief of systems medicine in the Department

"The new sensor has the potential to **detect low T-cell counts in a 15-minute test** in the newborn nursery."

of Pediatrics at Stanford, Atul talked about ongoing work in his lab to develop methods for mining the massive amounts of publicly available biomedical research data.

1996

Manish Butte '93 MMS'94 led a team at Stanford that has developed a new portable diagnostic device able to sort and count different types of cells. Based on an integrated microfluidics-waveguide sensor, the device has particular potential for difficult-to-detect immune conditions. Manish developed the sensor

borns takes three to six weeks to return results, by which time some affected infants could contract life-threatening infections. By contrast, the new sensor has the potential to detect low T-cell counts, a hallmark of the disease, in a 15-minute test in the newborn nursery before a new baby goes home from the hospital.

1998

Margaret Kelley '94 is the current president of the Texas Association of Obstetricians and Gynecologists. Her term is from 2011 to 2013.

2001

Alysia Turner Townsend '96 and her husband, Daniel, announce the birth of their third child and second son, Reuben, in June 2011. Alysia writes: "Reuben has big sister Ella, 6, and

KAREN PHILLIPS (2)



FISH TALES: (Above) Phyllis Hollenbeck Sun '73 MD'77 chats with Deborah DeHertogh '74 MD'77. (Right) Dean Emeritus Stan Aronson holds court at his and wife Gale's annual fete.



Westward Bound

Minor appointed dean of major medical school.

Lloyd B. Minor '79 MD'82, P'16, former provost of The Johns Hopkins University in Baltimore, will be changing coasts this fall. He's been appointed dean of Stanford University School of Medicine in Palo Alto, CA, effective December 1.

Minor will lead more than 1,500 faculty and 1,000 students at Stanford, which consistently ranks among the top US medical schools with faculty members who secure the highest amount of research funding per investigator in the country.

"It is a wonderful honor to be asked to lead the Stanford School of Medicine—one of the truly preeminent medical schools in the world—and I am tremendously excited by this unique opportunity to advance



Lloyd B. Minor

"As a provost, I know and have extensive experience with the value of these cross-cutting interactions."

state-of-the-art medical research that crosses and combines traditional medical disciplines and academic boundaries in unprecedented new ways," Minor said.

He looks forward particularly to Stanford's interdisciplinary research emphasis. "As a provost, I know and have extensive experience with the value of these cross-cutting interactions."

As Johns Hopkins provost, Minor was the chief academic officer and second-ranking member of the senior administration, responsible for promoting and coordinating the university's teaching and research mission. He led the university's budgeting process and oversaw the university's nine schools as well as its many interdisciplinary programs and academic centers.

Prior to his appointment as provost, Minor served as Andelot Professor and director (chair) of the Department of Otolaryngology–Head and Neck Surgery in the Johns Hopkins School of Medicine and otolaryngologist-in-chief of The Johns Hopkins Hospital.

During his six-year tenure, he expanded annual research funding by more than half and increased clinical activity by more than 30 percent, while strengthening teaching efforts and student training.

Minor is an expert in balance and inner-ear disorders. He is perhaps best known for his discovery of superior canal dehiscence syndrome, a debilitating disorder characterized by sound- or pressure-induced dizziness (see *Brown Medicine*, Spring 2007). In 1998, Minor and colleagues published a description of the clinical manifestations of the syndrome and he subsequently developed a surgical procedure that corrects the problem and alleviates symptoms.

Minor trained at Duke University Medical Center and the University of Chicago Medical Center and completed a research fellowship at the University of Chicago and a clinical fellowship at The Otology Group and The EAR Foundation in Nashville, TN.

—**Kris Cambra**

ALUMNIALBUM



Welcome Back

Alumna becomes chair of Neurology.

Karen L. Furie, MPH '87 MD'90 RES'94 F'95 has returned to Brown as chair of Alpert Medical School's Department of Neurology. She is chief of neurology at Rhode Island Hospital, The Miriam Hospital, and Bradley Hospital and executive chief of neurology at each of the Medical School's affiliated hospitals including Butler Hospital and the Providence VA Medical Center.

"Karen Furie has a proven track record of strong leadership expertise in research and education. Hers is the second of three critical hires that position Brown as a leader in brain science research and teaching," says Edward J. Wing, MD, dean of medicine and biological sciences. "Her appointment will boost our potential to be one of the top destinations in the country for clinical and academic neurology."

A graduate of Brown's Program in Liberal Medical Education, she received her medical degree from what was then the Brown School of Medicine. She received her master's in public health from the Harvard School of Public Health, and completed her residency in neurology and fellowship in stroke/neurosonology at Rhode Island Hospital.

"I am thrilled to be back at Brown and the Lifespan hospitals," Furie says. "My goal is to leverage the existing resources, the phenomenal preclinical work being done on campus, and the broad clinical neurological expertise at the hospitals to build a world-class translational neuroscience program. The Department of Neurology has historically provided the highest quality, cutting-

edge, patient-centered care. With this solid foundation, we have an opportunity to extend our mission and become a leader in innovative research and education."

Prior to this appointment, Furie served as associate neurologist and director of the stroke service at Massachusetts General Hospital. She was associate faculty at the Center for Human Genetic Research and associate professor in neurology at Harvard Medical School. She has played a prominent role in national and international efforts to advance the field through participation in the

"[Karen Furie's] is the second of three critical hires that position Brown as a leader in brain science research and teaching."

development of guidelines such as Stroke Treatment Academic Industry Roundtable (STAIR) recommendations, Guidelines for the Prevention of Stroke in Patients with Stroke or Transient Ischemic Attack, and Stroke: Working Toward a Prioritized World Agenda, in addition to holding leadership positions within the American Stroke Association, the National Institute of Neurological Disorders and Stroke, and the American Academy of Neurology.

Her research interests include stroke prevention, translational clinical trials, stroke biomarkers and genetics; insulin resistance after stroke; and the role of brain involvement in chagas disease, which is a major cause of heart disease, stroke, and cognitive impairment in Latin America. Her research also has provided evidence that sophisticated neuroimaging techniques such as computed tomography (CT), angiography, and CT perfusion can help determine stroke outcome. —**K.C.**

Karen L. Furie





GOOD TIMES: (Standing, left to right) **Brendan Magauran '82 MD'87**, **Patty Soscia MD'87**, **Steve Soscia**, **Susan Meschwitz PhD'89**, and **Arnie Sarazen '83 MD'87**. (Seated, left to right) **Jason Rosenstock '89 MD'92**, **Lydia Larkin-Rosenstock**, **Amelia Larkin-Rosenstock**, and **Sarah Larkin, MD '89**. (Right) **Amit Joshi '97 MD'01** enjoys the party on the 17th floor of the Biltmore Hotel.

big brother Isaac, 4, to smother him with filial affection. The family lives in Wisconsin.

2005

Ainsley MacLean Helman '01 and **Igor Helman '01** announce the September 16, 2011, births of Ramona and Ramsey MacLean Helman. The family lives in Washington, DC.

2007

Kristan Diaz '02 was married on April 20 in Newport, RI, to **Rick Rios Jr.** "**Monica Lucero Richardson '02**

MD'07 and **Sheila Lahijani MD'07** were my bridesmaids. **Amanda Irmen Higginson '02 MD'06** was also in attendance," Kristan writes. "I finished a residency in family practice with fellowship in obstetrics. I started my NHSC [National Health Service Corps] service in Silver City, NM, in August."

2009

Jessica Zerillo '05 married **Jesse Boodoo '06** on November 11, 2011, at the Royalton Mansion in Roslyn Heights, NY. A number of her MD'09 classmates were in attendance, including: **Isis Burgos-Chapman '05**, **Jason Ferreira '05**,



Caitlin Hansen '05, **Hana Kwan '05**, and **Carly Seidman '07 MD'11**. Jessica just completed residency at Beth Israel Deaconess in Boston, where she began a fellowship in hematology-oncology in July.

2011

Rajiv Kumar '05 was honored in June with a 2012 New England Patriots Myra Kraft Community MVP recognition award from the New England Pa-

ALUMNIALBUM

COMMENCEMENT 2013
GRADUATION DAY



FUTURE SO BRIGHT: (Above, left) All the excitement tires out baby Dylan, with mom Kaitlin Thein '08 MD'12. (Above, right) Solemn yet celebratory, Jeremy Choy '08 MD'12 (left) and David Cohen MD'12 march to the ceremony. (Left) Former Interim Dean Richard W. Besdine is too cool for med school.

News' "Forty under 40" winners. The winners are young professionals who have made a commitment to making a difference on a local, national or international scale. Castillo is an assistant professor of medicine at Alpert Medical School and a physician at University Medicine. His research interests focus on the epidemiology, prognostic factors, diagnosis and therapy of lymphomas and HIV/AIDS-related malignancies.

2009

Sam Hamade, a board-certified pulmonary/critical care specialist, joined the medical staff of McLaren-Flint. He is caring for patients at Pulmonary Associates, PC, in Flint, MI. Sam completed a pulmonary and critical care fellowship at Alpert Medical School and completed his residency at State University of New York in Syracuse.

triot's Charitable Foundation. Rajiv is co-founder of ShapeUp, a provider of wellness programs that use a social approach to help people improve their health. He was also chosen as one of *Providence Business News*' "Forty under 40" winners. The winners were chosen based on career success and community involvement. All are young professionals who have made a commitment to making a difference on a local, national or international scale.

FELLOWSHIP 2008

Jorge Castillo, who completed the hematology/oncology fellowship at Rhode Island Hospital/The Miriam Hospital, was named one of *Providence Business*



INCOGNITO: Even a mustache can't disguise Riabianca Garcia's happiness.

KAREN PHILIPPI (4)

OBITUARIES

ALUMNI

EDWARD C. OLCHOWSKI '73 MD'76

Edward C. Olchowski of Barrington, RI, died in January. Olchowski graduated from Cranwell Preparatory School in 1969 and from Brown University in 1976 with both his undergraduate and medical degrees. He is survived by his wife, Bonnie Olchowski; his daughter, Sara, and son-in-law Andrew Cornwall; and his son, James Olchowski.

ALAN SIMON BROWN MD'78

Alan Simon Brown died May 16 at the age of 60. He was a graduate of Linton High School and completed his undergraduate degree at Clark University in Worcester, MA.

After receiving his MD at Brown, Alan did his residency at Montefiore Medical Center in New York City and a fellowship at Massachusetts General Hospital. He practiced medicine for many years in Massachusetts and invented and held patents for medical devices. A retired radiologist, he later turned to a passion for home design, "hobby farming" and master gardening and was committed to helping people and the humane treatment of animals.

Beyond his medical career and scientific interests, he had a stewardship of land he owned and cherished, he was an athlete, played several musical instruments, and was a creative illustrator. Alan always took the time to really know his friends and if anyone had medical or personal issues to discuss, he was a consummate listener. He helped people with their concerns, facilitating good solutions.

Alan leaves his mother, Judy Brown; three brothers and a sister. He also leaves his loving companion, Carol Miriam Wolff.

FACULTY

SIDNEY KATZ, MD

This year saw the passing of a giant in the field of medical research. Sidney Katz, MD, died at his home in Michigan with Beverly, his wife of more than 60 years at his side, along with his daughter. Born in Cleveland, Ohio, in

returned to Cleveland, as Case Western had one of the best departments of preventive medicine. There he became interested in rehabilitation and set about trying to measure the functioning of older persons engaged in rehabilitation efforts at the Benjamin Rose Institute.

He spent a decade at Michigan State University leading their Department of

"Most scientists **do not have even one 'great' idea** in their careers; **Sidney Katz had not one, but at least three.**"

1924, he attended medical school at Case Western University. He earned a Bronze Star for his work in Korea running a MASH unit, caring for soldiers who came down with hemorrhagic fever, ultimately reducing the mortality rate from the disease from 10 percent of those infected to below 1 percent. After a stint at the Walter Reed hospital in Washington, DC, where he continued his research on hemorrhagic fever, he

Preventive Medicine and in 1983 came to Brown University as associate dean of medicine for external affairs, where he founded the Center for Gerontology and Healthcare Research. After five very productive and influential years at Brown, he returned to Case Western and the Benjamin Rose Institute, where he spent the last 20 years of his career, continuing to influence young people devoted to making a difference in applied geriatrics and rehabilitation.

Always a pioneer, Dr. Katz's insights were rooted in his own experience and in a deep understanding of how knowledge is accumulated and communicated. His original focus on measuring how humans regain function following a stroke or other health event became the basis for all his major contributions to medical research.

Most scientists do not have even one "great" idea in their careers; they add to the sum of knowledge confirming and/or refining the insights of others. Sidney Katz had not just one, but at least three big ideas. The first was to establish a measure of physical functioning that became known as the Activities of Daily Living (ADL). Dr. Katz was not the



Sidney Katz, MD

OBITUARIES


first physician to acknowledge the importance of documenting how patients function as part of the treatment process, but his index was the first to combine carefully constructed descriptive categories across several discrete areas of basic human functioning rather than merely relying upon a clinical judgment. First published in 1956 and followed by a highly cited paper published in the

related some of the major demographic and epidemiologic researchers of the day to establish longitudinal studies of the elderly and disabled in order to document annualized rates of functional decline in the population. The National Institute on Aging based several major research program announcements on the concept of “Active Life Expectancy” and several US and cross-national

notable features incorporated into the Act that had been IoM report recommendations, none was more uniquely the product of one person than the mandate that there be a comprehensive clinical assessment of each resident admitted to a nursing facility that would be periodically updated so that the individual care plan recommended for the resident would reflect the assessed needs of the individual. The existence of a standardized assessment made it possible to develop measures of nursing home quality rooted in the outcomes experienced by residents. This, in turn, is at the root of numerous reimbursement innovations in the long-term care arena.

A version of the assessment instrument has been translated into dozens of languages and is being used for care planning, quality monitoring, and policy formulation in countries as diverse as Spain and Finland, New Zealand and Canada.

These three “big ideas” have largely defined the domain of geriatrics in the US. There would be little argument that Dr. Katz has been the most influential thinker in geriatrics in the US, but it is likely that his influence has been felt, at least indirectly, far beyond the domain of geriatrics into medicine in general. While most studies of the impact of new treatments continue to have as their primary end points mortality and disease-related events, many now include measures of functioning, often based upon principles that Sidney Katz originally articulated.

—**Vincent Mor, PhD,**
Florence Pirce Grant
Professor of
Community Health 

“There would be little argument that **Dr. Katz has been the most influential thinker** in geriatrics in the US.”

Journal of the American Medical Association in 1963, this index became the instrument of choice for the burgeoning field of geriatrics. Subsequent measures of human functioning and quality of life have been influenced by the Katz Scale of Activities of Daily Living and it continues to have influence, as evidenced by the hundreds of references to it even in 2012.

Not content with merely transforming how clinicians thought of their patients’ outcomes—from focusing only on survival to focusing on functioning—Dr. Katz went on to change how epidemiologists and demographers think about life expectancy. He advanced the notion that we should be equally concerned about the “active life expectancy” of a population since once they are no longer “active” they will be dependent upon the assistance and care of others. This paper, published in the *New England Journal of Medicine*, stimu-

longitudinal surveys of the elderly were initiated to improve our understanding of the determinants of what it is that enables some elderly persons to remain independent.

Dr. Katz had been a member of the Institute of Medicine (IoM) for much of his career and in 1983 he was tapped to chair what was to become one of the most influential of all IoM panels, one focused on the quality of nursing home care and the role of governmental regulation. The study was stimulated by repeated scandals in the nursing home industry and a perception that government regulation was inadequate. Dr. Katz was able to negotiate universal agreement of the committee membership for a comprehensive set of recommendations that amazingly enough were incorporated into the Omnibus Budget Reconciliation Act of 1987, which became known as the Nursing Home Reform Act. While there were many

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