

BROWN MEDICINE

Volume 12 | Number 1 | Spring 2007

A magazine for alumni and friends of The Warren Alpert Medical School of Brown University

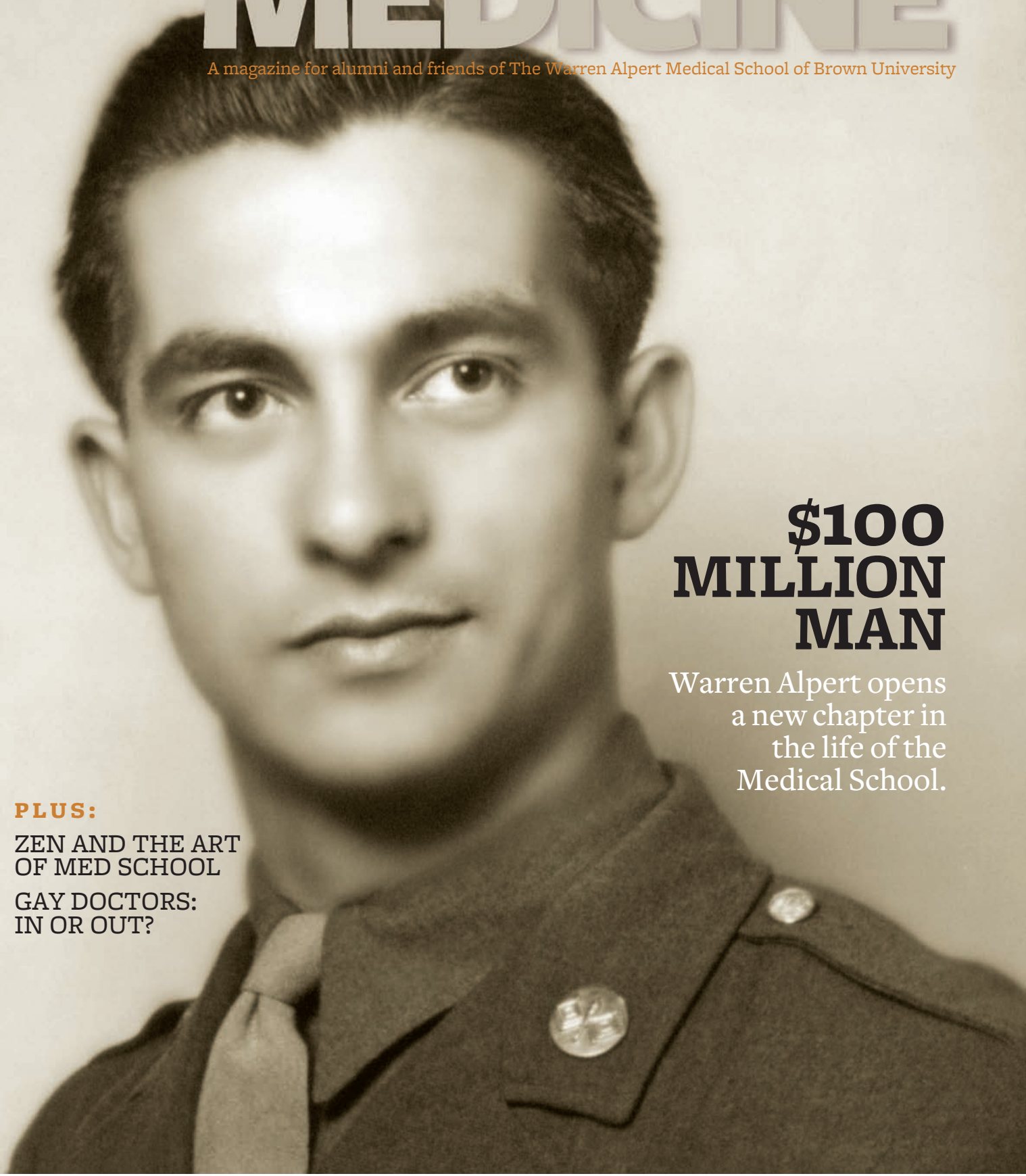
\$100 MILLION MAN

Warren Alpert opens
a new chapter in
the life of the
Medical School.

PLUS:

ZEN AND THE ART
OF MED SCHOOL

GAY DOCTORS:
IN OR OUT?





The Next Chapter

This year will be forever marked by a transformative gift from The Warren Alpert Foundation, one that has led to the renaming of our medical school. Most importantly, this extraordinary gesture has already begun to accelerate our progress in several areas crucial to the strength of biology, public health, and medicine at Brown—from the growth of our faculty and medical classes to the construction of a medical school building that may well anchor

the emergence of a nascent academic health center comprising The Warren Alpert Medical School of Brown University, the Program in Biology, the Program in Public Health, and Brown's teaching hospital partners. This and other changes, still under way, could well undo a thirty-five year status quo.

Late in April, I was privileged to speak on behalf of the Brown community at a memorial service for Mr. Warren Alpert in New York City. I said then that Mr. Alpert's gift has altered our everyday realities. Indeed, over the coming months and years, this remarkable act of generosity will increase our opportunities and abilities exponentially. It is clear that Mr. Alpert had an unshakable confidence in the ability of medicine to enhance human health and human life, a confidence that I believe motivates us all and unites us in our work and our hopes.

A portrait of Mr. Alpert, unveiled on April 24, now hangs in the suite of the Dean of Biology and Medicine in Arnold Lab. I trust you will see it, as I do, as a reminder that our highest goals are within closer reach than ever. One manifestation of this is the announcement that in the Research category of the latest *U.S. News & World Report* rankings, our Medical School has risen nine places—from 43 to 34—in just four short years. From my first moments at Brown I have felt the tremendous potential of our biomedical and public health community and am increasingly certain that the years ahead will witness an unprecedented fulfillment of that promise.

Soon a newly designed logo for The Warren Alpert Medical School of Brown University will make its appearance. We are all looking forward to highlighting this symbol of the proud history, vital present, and brilliant future of medicine at Brown.

I could not be more pleased to be on this journey of discovery.

Sincerely, •

EW

BROWN MEDICINE

Volume 12 | Number 1 | Spring 2007

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Brown Medicine is published three times a year by the Office of Biomedical Advancement.

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“I have a vision of [the medical field] being very old-fashioned, old men in their white coats—and I think that’s changing...”

—Jason Lambrese MD’10

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ON THE COVER

Warren Alpert, courtesy Warren Equities, Inc.

Evolution of a Magazine

At the moment you read this, there's a good chance that several people are doing a victory dance. This issue of *Brown Medicine* represents a special triumph, for it is the newly redesigned incarnation of Brown's medical alumni and news magazine. Although work on the redesign began in earnest in 2006, the product you're holding in your hands has several years of trial and error, creative input, and dogged lobbying in its genetic make-up.

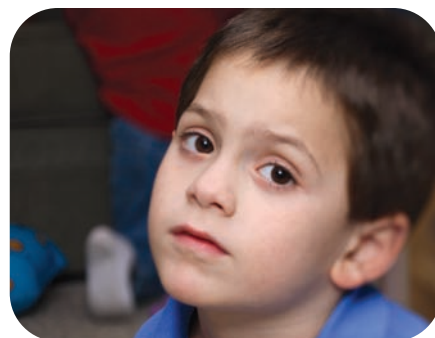
The result we've aimed for is a publication that will engage Brown medical graduates, of course, giving them an insider's view of campus and the hospitals and news of their fellow alumni. But we hope *Brown Medicine* will appeal to many other readers, as well, whether their interest is scientific, medical, Brunonian, or merely human. We know every story won't interest—or please—every reader. And that's OK. Even if it means committing acts of editorial derring do, we want to give our readers the truth, give them stories that challenge as well as stories that inspire. We are also firm believers in a little humor as an antidote to the sanctimoniousness that can all too easily substitute for seriousness in a magazine about people seeking to cure disease and save lives.

For the seven years that I have edited *Brown Medicine* I have been constantly amazed and moved by the support of my editorial board and by the alumni magazine editors at several of our peer schools. They have been steadfast advocates, advisers, and cheerleaders, the best friends a magazine (and its editor) could have. I am forever indebted to Norman Boucher, editor of the *Brown Alumni Magazine*, whose expertise and professionalism set the bar very high early on, and who led me to our art director extraordinaire, Mindy Oswald. With equal parts expertise, inventiveness, and patience, Mindy regularly manages to take a mixed bag of words and images and ideas and make them make sense. She—and my communications colleagues—make every issue a wonderful adventure.

We hope you like the result.


Sarah Baldwin-Beneich

INBOX



“AUTISM” HITS HOME

Thank you for your recent article on autism. Years ago, when my son was diagnosed with Asperger's Syndrome, information was hard to come by. Finding a psychiatrist or neurologist with relevant experience was even more difficult. These days, more and more is being published, and specialists abound.

I am encouraged at the progress we've made in recognizing this condition that seems to be increasingly prevalent.

J. D.

Providence

A CURE FOR DIABETES?

I read the [diabetes] article with great interest and was surprised to find no reference to a currently available cure for type 2 diabetes.

EXPRESS YOURSELF

Brown Medicine welcomes readers' letters, which may be edited for length or clarity.

Brown Medicine

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KAREN PHILIPPI

It is called gastric bypass surgery. [Gastric bypass] is not a magic pill. It is not risk free either, but as long as it is performed as part of a comprehensive program and by experienced surgeons, the benefits far outweigh the risks, and certainly the risks associated with continued diabetes.

A recent metaanalysis published in *JAMA* showed the resolution of DM in over 85 percent of patients. Our experience has been the same: our type 2 DM patients leave the hospital two days after surgery not requiring oral hypoglycemic drugs. The vast majority are drug independent within three months of surgery.

Unfortunately, the endocrinology and medical community have been hesitant to embrace surgery. Instead, additional drugs are added to a patient's formulary, each with its own side effects, and eventually many patients end up on insulin. There are published reports that the longer patients are diabetic, the less likely they are to be fully cured by surgery.

Any discussion about the obesity-associated diabetes epidemic is incomplete without mentioning surgery. I believe Brown has a bariatric surgery program. I do suggest seeking their opinion as well.

AMIR MEHRAN MD'90

Director of Bariatric Surgery

Assistant Clinical Professor of Surgery

UCLA Department of Surgery

Dr. Robert Smith responds

For many people, bariatric surgery can accomplish greater and more sustained weight loss than other currently available approaches. As Dr. Mehran states, however, this is achieved at the cost of significant adverse risk. Indeed, in a recent review in *JAMA* (296:1575, 2006), it was noted that the

mortality rate of bariatric surgery averages 0.5 percent in major centers, and that almost 40 percent of patients develop complications during the first six postoperative months. Patients need lifelong monitoring for vitamin deficiencies, and recent reports have described unusual problems, such as the development of pancreatic beta cell hyperplasia (*N Engl J Med* 353: 249, 2005).

Given the mortality and morbidity of bariatric surgery, even in the most experienced centers, several major professional organizations and multiple other expert panels have published guidelines recommending bariatric surgery only for patients with body mass index (BMI) of at least 40 kg/m², or BMI from 35-40 kg/m² with significant co-morbid conditions that could be improved by weight loss. Based on data from the National Health and Nutrition Examination Survey (*JAMA* 288: 1723, 2002), this represents just 15-20 percent of all obese patients. The guidelines also recommend bariatric surgery only after vigorous attempts at other approaches to weight loss have proven unsuccessful.

We have a vigorous bariatric surgery program in the Brown-affiliated hospitals, and we refer selected patients from the Hallett

Center for this procedure. Most importantly, Hallett endocrinologists, as well as faculty from other departments at Brown, work collaboratively with the surgeons through a Bariatric Surgery Research Group on better surgical and non-surgical approaches to managing obesity. Since the mortality rate and side effects of bariatric surgery are much higher than most pharmacological therapies, we anticipate an era when drugs that effectively control appetite or even more refined surgical procedures will give us better options for treating obesity.

ROBERT J. SMITH, MD

Professor of Medicine, The Warren Alpert

Medical School of Brown University

Director, Hallett Center for Diabetes

and Endocrinology

Thank you for your excellent piece on diabetes in the Fall 2006 issue. Having lost my paternal grandmother to complications of the disease before I was born, I am particularly sensitive to its scourge. I especially took note of the section of the article dealing with pediatric diabetes. That close to half of new pediatric cases of diabetes are obesity-related meshes neatly—and sadly—with statistics showing that more and more of our young people weigh in as obese. While the pediatric program at the Hallett Center does admirable work in treating children with diabetes, it strikes me that pediatricians everywhere have an equally important job to do in helping diabetes-free kids stay that way. Time spent educating these children and their parents about the possible effects of obesity and the ways to prevent it through nutrition and exercise can pay big dividends in future good health and lower health care cost.

JAMES M. DICLERICO

Quechee, VT

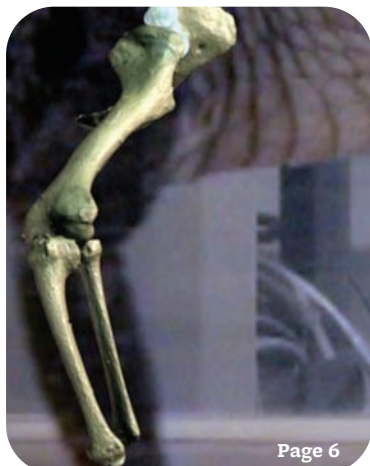


Recent Honors

Staff writer Kris Cambra received an Award of Distinction from the Association of American Medical Colleges' Group on Institutional Advancement for her article, "Changing Your Mind" (*Brown Medicine*, Spring 2006), in the Robert G. Fenley Writing Award-General Staff Writing category.

THE BEAT

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



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Jeffrey Drazen,
editor-in-chief of the
*New England
Journal of Medicine*

Words to the Wise

Journal editor finds the moral of the Vioxx story.

High drama may have a place in the supply closet on *Grey's Anatomy*, but it's the last thing you'd expect to find in the sober corridors of the *New England Journal of Medicine*. For the inaugural Alpha Omega Alpha Visiting Professor Lecture this April, Dr. Jeffrey Drazen, *NEJM's* editor-in-chief and a professor of medicine at Harvard, spun a riveting tale of dashed hopes, broken promises, and their inevitable outcome, legal bills. His subject: Vioxx, and what the drug debacle can teach us about the value of full data disclosure in medical research.

Drazen believes that his journal was

exploited, and its good name compromised, by ambitious researchers at Merck who knew that the published version of their clinical trial omitted crucial data about Vioxx's link to adverse cardiovascular events—data that had appeared in an earlier, un-submitted version of the article. “The data in the article was accurate, but it was incomplete,” Drazen explained. “In medicine, there is no theory. So you draw from examples to build a theory.” Merck, he suggested, did the opposite, molding its data to conform to a theory that would earn the company \$2.5 billion in drug sales.

Of course, the story is many-sided. Some

DRAZEN, SCOTT KINGSELY; DAVID BAER

scientists have chided *NEJM* for making expedient and loosely founded accusations, and Gregory Curfman, the journal's executive editor, acknowledged in a legal deposition that lax editing may have played a part in the too-smooth passage from laboratory bench to publication. A tense moment in Drazen's lecture came when Dr. David Egilman, a public health professor at Brown who has served as an expert witness in litigations against Merck, stood and accused the journal of obfuscations in the aftermath of the scandal.

But Drazen made clear where he places journalistic responsibility. "The onus lies with the author," he told an auditorium of physicians and students. "I want to get this message across: Yes, you can fool us. But we're going to hang you out to dry if you do."

It was fitting, perhaps, that the first AOA lecture at Brown focused on such a controversial topic. Alpha Omega Alpha, the 100-year-old medical honor society, touched down at The Warren Alpert Medical School this year after a somewhat turbulent ride (see *Brown Medicine*, Spring 2006). Not everyone was convinced that AOA fell in line with the School's ideal of compassionate competency and public service. Although the society recognizes excellence in all facets of American medicine, induction is often equated with probable acceptance into the nation's most competitive residency programs, and for that reason AOA has been accused of fueling panic just as often as it fosters achievement.

"Some students were concerned that philosophies of AOA were not consistent with the ethos of Brown, and most students were anxious about the fairness of the

induction criteria," explains Neel Shah '04 MD'08, president of the medical student senate. "Ultimately, though, I think they respect Dean Adashi's prerogative to activate a Brown AOA chapter, and they recognize the benefits alongside the tradeoffs." (Current students can rest assured that in the coming years, at least, induction will not take place until after Match Day.)

For her part, Dr. Charlotte Boney, an associate professor of pediatrics and the chief officer of the School's AOA chapter, sees the honor society's arrival as an opportunity to celebrate the excellence of the Brown

community. "It's not controversial at all from my point of view," Boney says. "Our med students, house staff and faculty deserve to be recognized like those at any other university."

But in the intense climate of academic medicine, occasionally noble aims recede behind opportunities for glory. It's a phenomenon that plaintiffs' attorneys have pointed to in more than a few Vioxx litigations, and Dr. Drazen doesn't dispute it.

"People have assumed that the external markers of success are the real ones," he said. "But the true marker is your contribution to medicine." —**Robert Haskell MD'10**

Bitter Pill

When contraception came to College Hill.

In the 1960s the controversy surrounding birth control centered on fears that it would promote promiscuity among women and lead to a surge in premarital sex. The debate raged especially bitterly

at Brown, which made international news on September 28, 1965, when *The Herald* reported that Roswell Johnson, the University's director of Health Services, had prescribed birth control pills to two engaged but unmarried students at Pembroke College, the University's women's college that merged with Brown in 1971.

BACK IN THE DAY

According to Toby Simon, a Brown student in the '60s and the University's first director of health education at Health Services in the '80s, physicians at a handful of other colleges had also prescribed birth control pills to students, but Brown was the first to publicize the fact. Newspapers and wire services across the country picked up the story.

Johnson, who served the Medical School as clinical professor of community health from 1982 to 1984, defended his decision, telling reporters then that prescription of the pills was his own "private orientation" and not University policy, and that he would not have prescribed the pills without the consent of the students' parents and without "a great deal of soul searching." Brown students and President Barnaby Keeney also defended his choice, but a Gallup poll at the time revealed that three out of four adults disapproved of the practice, objecting to the "open invitation to immorality" implied by such a policy.

The controversy has significantly quieted down since the 1960s, but Roswell's role should not be underestimated, according to Simon. "Somebody had to take a stand on this," she says, "and wouldn't you know, it was Brown." Roswell passed away in 2000.

—**Gabriella Doob '07** (adapted from the *Brown Daily Herald*)



**2007 Inductees
into The Warren
Alpert Medical
School of Brown
University,
Alpha Chapter:**

**16 students
3 house staff
2 faculty**

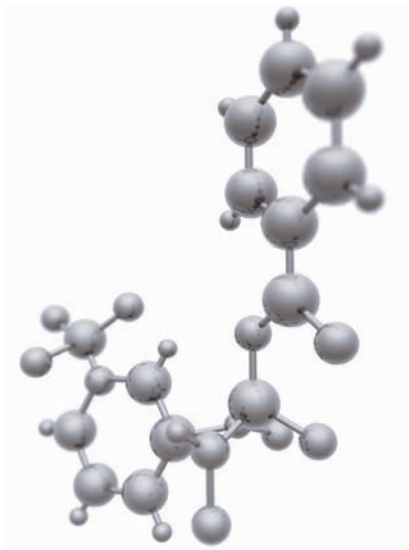
In Plain English

What's another twenty-nine-letter word for "stop"?

Ever wonder what those Byzantine titles of scientific presentations really mean? Assistant Professor of Obstetrics and Gynecology Laurent Brard, who is director of the Molecular Therapeutics Laboratory in the Division of Gynecologic Oncology, recently presented this whopper at the Ninth International Symposium on Anti-Angiogenic Agents: Recent Advances and Future Directions in Basic and Clinical Cancer Research, in San Diego: "Iron Chelators Deferoxamine and Diethylenetriaminepentaacetic (DTPA) Acid Inhibit Endothelial Cell Proliferation and Angiogenesis."

For all we know, a cure for cancer could be locked up in all that jargon. And Brard thinks there might just be. "Iron binding chemicals, such as DTPA, can prevent the formation of new blood vessels critical to cancer growth by not allowing cells to use iron as a building block."

Why didn't you say that in the first place?
—Kris Cambra



Vitamin C Is for Cancer

Keep your C out of my DNA.

Thanks to Erin Brockovich and Hollywood, most people know that cancer-causing chromium 6 can be toxic in tiny doses. Now Brown scientists have uncovered the unlikely culprit: vitamin C. Their research shows that when naturally occurring

vitamin C reacts with even low doses of chromium 6 (or hexavalent chromium) inside human cells, it creates high levels of cancer-causing DNA damage and mutations.

This is startling, says Associate Professor Anatoly Zhitkovich, who oversaw the experiments. Outside cells, vitamin C actually protects against the cellular damage caused by the compound by rapidly adding electrons to free radicals, converting them into harmless molecules. This produces chromium 3, a form of the compound that is unable to enter cells.

But "[w]hen we increased the concentration of vitamin C *inside* cells, we saw progressively more mutations and DNA breaks," Zhitkovich says. "For years, scientists have wondered why exposure to small amounts of hexavalent chromium can cause such high rates of cancer. Now we know. It's vitamin C."

Hexavalent chromium, used to plate metals and make paints, dyes, plastics, and inks, causes lung cancer and is found in 40 percent of Superfund sites nationwide. Zhitkovich said the work of his team, which includes research assistant Lauren Stoddard, postdoctoral research associate Ivan Beshpalov, and former graduate student Mindy Reynolds, might make federal regulators lower exposure standards.

Zhitkovich is part of the Superfund Basic Research Program, which addresses the environmental concerns created by hazardous waste contamination. —W.Y.L.

What Moves You

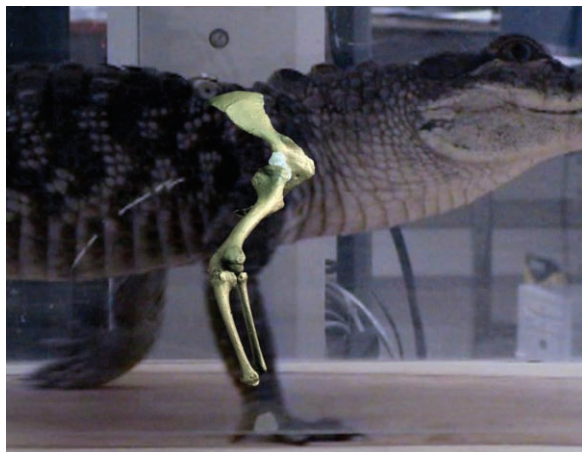
Soul of a new machine: X-rays in action.

FUTURAMA Thanks to a \$1.8 million grant from the W.M. Keck Foundation, Brown scientists are devising a whole new class of medical and scientific imaging. Their groundbreaking system will make it possible to see inside living humans and animals and watch their bones as they run, fly, jump, swim, and slither.

This high-resolution, high-speed system will contribute to better treatments for knee, shoulder, wrist, and back injuries and help scientists understand the evolution of complex movements, from the flight of birds to the leap of frogs.

"It's very cool technology that is also very important from a biomedical standpoint," says the Department of Ecology and Evolutionary Biology's Elizabeth Brainerd, who is overseeing the development of the system. "You'll be able to see through skin and muscle and watch a skeleton move in 3-D."

—Wendy Y. Lawton





Osvaldo Sala

What's the greatest misconception about climate change?

That all the signs of warming are due to climate variability. Scientists are now in the position to discriminate between climate variability and human impact. We've increased the concentration of carbon dioxide in the atmosphere by 30 percent. That's enormous.

Your work with the UN's Millennium Ecosystem Assessment focused on population and consumption. Why?

The two major drivers of global change are consumption per capita and population growth. Those occur in different parts of the world and we try to blame each other [for them]. In the developed world, population growth is relatively small, but there's a large increase in consumption per capita—bigger cars, bigger houses. We keep consuming

more. In the developing world, their consumption per capita is pretty flat—they are very poor—but their population is growing very fast. Consumption rate and population growth result in a need for more energy and that means more carbon emissions.

What are the solutions to these problems?

There are two things that we ought to be doing. One is to increase the efficiency with which we use energy, so for instance, drive the same amount of miles using less gasoline. The other is produce energy emitting less carbon, what is called decarbonization. And for each of these there's a long list of options. There's no silver bullet ... there are many small things that can be done. We can have smaller, hybrid cars, public transportation. We can use solar power, wind power, or scrub carbon dioxide from the pipes of power plants. Use energy more efficiently, and produce energy without producing carbon.

What can the average person do?

The average person can be more efficient in the way we drive, the way we heat our homes. If you go on the Web you can find commercial sites where they charge you a certain amount [called carbon offset credits] to compensate for your carbon emissions. They put the money into clean energy and planting forests.

Is there any hope?

Of course there's hope. I am a very optimistic person. The message is not a gloom and doom scenario. There are alternatives. The sooner we act the cheaper it's going to be.

—K.C.

As the World Warms

Everything you need to know about climate change in sixty seconds.

Behind Al Gore's Oscar stands a cadre of environmental scientists who've been providing the scientific evidence for climate change. One of them is international authority on global change and biodiversity

ELEVATOR PITCH

Osvaldo Sala, the Sloan Lindemann and George Lindemann Jr. Distinguished Professor of Environmental Studies and director of the Environmental Change

Initiative (ECI) at Brown. The ECI draws on faculty from a number of disciplines to tackle the scientific and public policy issues surrounding environmental problems.

Brown Medicine recently asked Sala for his thoughts on the climate crisis.

What effect is global warming having on biodiversity?

Species can only survive within a certain range of temperature. We've already observed significant changes in temperature and we know that in the past those changes resulted in a redistribution of species. The difference is those changes occurred over millennia, and now the same magnitude of change is going to occur in less than a century. It is imposing species to change at a rate much faster than they can cope. That's going to result in extinctions of species.



Alan Rosmarin

Target: Cancer

A new way to trigger—and stop—cell division.

When cells go about the business of dividing, they can get sidelined. Maybe there aren't enough nutrients. Maybe there aren't the right signals to resume multiplying.

FINDINGS Either way, cells go quiet. New research from Brown reveals that a single transcription factor called GABP can restart cell division, the process that drives the development of embryos, the renewal of hair, skin, and blood—and the creation of cancer.

The work introduces a new pathway that can be manipulated to control cell growth. Since a key characteristic of cancer cells is unchecked growth, the research identifies potential targets for new treatments.

"Now that we know a way to disrupt GABP and stop division," says Alan Rosmarin, an associate professor of medicine at Brown and a medical oncologist at The Miriam Hospital, "there is the possibility that a drug can be made to do the same thing in cancer cells."

Zhong-Fa Yang, an instructor in medicine at Brown and a postdoctoral research fellow at Rhode Island Hospital, was the lead author of the article. —W.Y.L.

Some Give All

The inner workings of the anatomical gift program.

Anatomy class. The centuries-old tradition of human dissection is a cornerstone of medical education, and at the center of the course is a teacher who never speaks: the human cadaver.

But how does a body navigate to this pit stop on the road to a final resting place? At Brown, Shannon Silva is the key.

Silva is an administrative assistant for the Department of Ecology and Evolutionary Biology (which is responsible for the human morphology class for first-year medical students) and the coordinator of the Anatomical Gift Program. People interested in donating their body to science, and more specifically, to Brown, usually start the process by calling Shannon.

"Everyone always asks if these are doctors or nurses, people who care about

medicine," says Silva. Not usually. "All kinds of people donate. The majority of people just want to make a difference."

When donors decide to make the gift, they sign papers indicating their wishes and the form sits in a file until the time of death. Silva, who's been doing this work for six years, doesn't usually hear back from the donor until she's apprised of the death, though she does have "one elderly gentleman who checks in from time to time, to let us know he's still out there."

Upon death, the funeral home contracted with Brown performs the embalming. "It's a special embalming process. They use more fluid and higher concentrations of different types of chemicals. And it does change the characteristics of the tissue," says Dr. Dale Ritter, director of the morphology course.

Few donors change their mind before their death, but occasionally the surviving

ROSAMARIN, CONSTANCE BROWN; SILVA, MARY BETH MEEHAN



Shannon Silva

family members have difficulty with their loved one's decision. After they are used in the program, the bodies are cremated and the ashes returned to the family. The wait can be an anxious time.

"They go through a grieving process, and it's difficult for some people to not have closure," Silva says. However, "the majority of

Some families report that **contributing to medical education adds meaning** to their loved one's death.

families are thrilled and excited and want to do what their family member wanted," and some families report that contributing to medical education adds meaning to their loved one's death.

Medical students meet their cadaver filled with a mix of curiosity and fear, but they connect, says Ritter. "Some people are really excited and into it. Some never really get comfortable. It's hard to know. The students almost universally are reluctant to express misgivings to the teaching staff because this is the first semester of medical school and they're worried it will be seen as a sign of weakness."

Little medical history accompanies the cadaver other than a death certificate that indicates the cause of death. Still, the bodies tell stories.

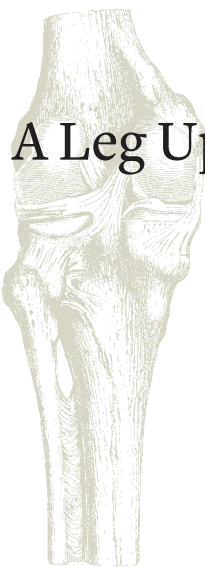
The typical age of a donor at death is in the range of seventy to eighty years, so "[students] see replaced joints, hips, evidence of cardiac surgery, pacemakers, scars....," says Ritter.

At the end of the semester, the students organize their own memorial to thank the donors for their service.

When she returned to school a few years ago, Silva decided to pursue additional certification in thanatology. Though the former anatomy course directors were unsure how to tell her that this was part of her position during the interview process, she says she has no problem handling this unusual job.

It's all in a day's work.

—K.C.



A Leg Up on Knee Replacement

Computer technology makes the cut.

When William Conheeny underwent surgery recently to replace his arthritic left knee, he entrusted the procedure to Clinical Assistant Professor of Orthopaedics Gary M. Ferguson—and a computer.

The seventy-three-year-old East Providence man says he's now "100 percent better... [and] back to walking the bike path."

That success, according to Ferguson, derives from using a well-designed total knee replacement—or TKR—that's implanted as accurately as possible.

"We know [that] how long these parts last depends on how accurately they're put in, how well they fit and bond to the bone, and the way forces are transmitted from the lower to the upper part of the leg," says Ferguson. "One of our goals is to find a TKR that lasts the patient's lifetime. We get closer to that goal with each advance."

Six months ago The Miriam Hospital acquired new computer-assistance technology that Ferguson predicts will extend the current fifteen-year life expectancy of TKRs to twenty-five years. Using infrared sensors placed along the patient's leg and within the surgical tools, the surgeon can turn to a computer for a detailed electronic map of the entire limb and "three-dimensional, real-time feedback on what he's about to do."

"The angle of cut determines how the implant will sit on bone," he explains. "When the surgeon holds the cutting device, he tells the computer the angle he'll use. The sensor lets us see the angle relative to the whole leg," allowing for a more perfect anatomical placement of the implant and an optimally balanced leg alignment.

Potential errors in placement can be discovered and corrected during the surgery, Ferguson says. He recently began combining the navigation technology with another advance, minimally invasive surgery.

"Using the minimally invasive approach allows for less cutting, but we can see less of the skeleton with our eyes. [With] computer navigation, we're making up for that disadvantage," he says. "Now we do less cutting to do the same job, and that means less injury, a faster recovery, less scarring and pain, less lost work time—and an easier experience for the patient."

—Mary Jo Curtis

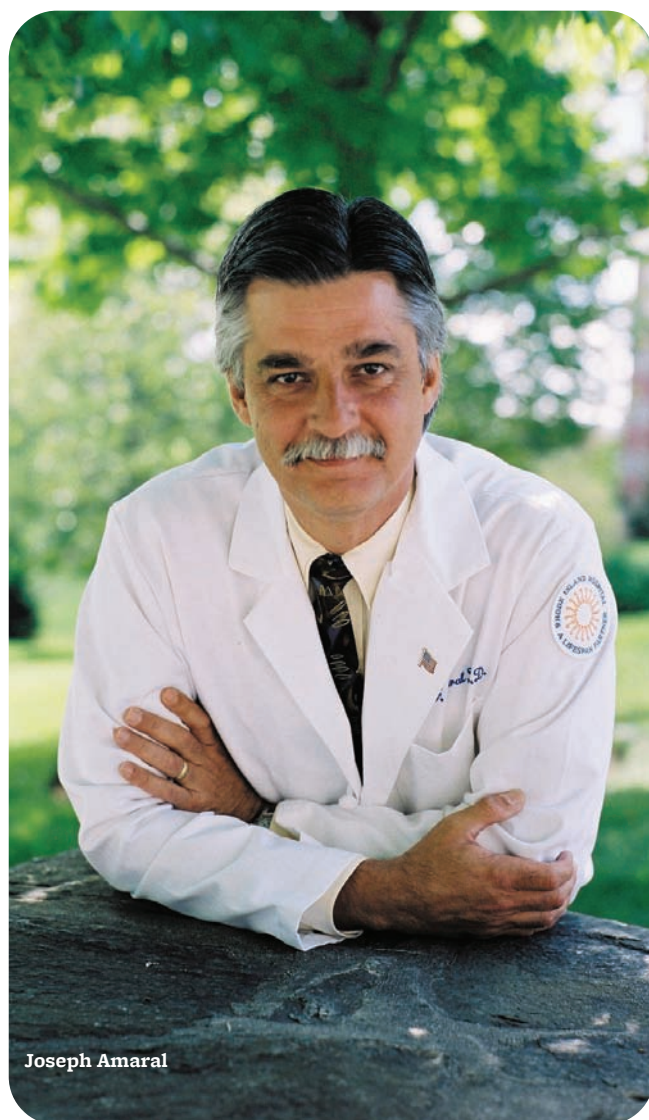
STAT SHEET

DEEP IMPACT

Ever wonder what medical schools and teaching hospitals contribute to society? Take a look below for the effect they have on Rhode Island and the country.

	RHODE ISLAND	UNITED STATES
Total employment impact	25,124 jobs	3 million jobs
Resident and student spending	\$26.7 million	\$2.78 billion
Out-of-state patient spending	\$7.76 million	\$1.22 billion
Total government revenue impact	\$194.48 million	\$20.1 billion
Total employment impact	3.68 billion	\$451.65 billion

ALL FIGURES ARE FOR 2005 AND REFLECT AAMC MEMBER INSTITUTIONS. SOURCE: "THE ECONOMIC IMPACT OF AAMC-MEMBER MEDICAL SCHOOLS AND TEACHING HOSPITALS—2005", PUB. AAMC, JANUARY 2007.



Joseph Amaral

Native Son

Rhode Island Hospital's president never wavered in his view of his mission: to serve the people of his state.

Seven years ago this April, Joseph Amaral MD'81 had just taken the helm of Rhode Island Hospital, and he had some good ideas about where the institution could go. "Next thing I know," he recalls, "I find out we're losing \$28 million and the nurses are planning to go on strike."

MOVING ON

Though he "didn't go to president school," Amaral knew he needed a list of principles to help guide his decisions. Among them: respect the hospital's employees, ask them what they need and

give it to them, and always be mindful of the "Rhode Island" in "Rhode Island Hospital." "I always believed we were here to do what's best for the citizens of this state, not for the hospital as an entity," he says. Academic medicine is an important part of that responsibility. "We're here to treat people but also to train and educate—that is a key asset. People in Rhode Island shouldn't have to leave to get the best care."

Amaral felt compelled to get the hospital moving in the right direction—quickly—and that the best approach was to keep a high-altitude perspective. "I knew I wanted to avoid a convoluted strategic planning process, so I didn't give people lots of details—I gave them a basic roadmap that they could fill in. And the results were totally remarkable. We accomplished in seven years what might have taken ten."

Indeed, Amaral is largely credited with reversing the hospital's operating losses to surpluses, creating centers of clinical excellence, doubling research funding, investing some \$420 million in infrastructure, and improving employee relations and patient satisfaction.

"All that money we spent in capital improvements—some of them are visible, like the new ED. But many are less visible because they're focused on creating a better work environment for our employees. Happier employees create a better experience for our patients."

MAN IN MOTION

With such a positive record, why leave now? Amaral, a professor of surgery, a pioneer of laparoscopic kidney harvesting, and the principle developer of an ultrasonic cutting and coagulating surgical device, admits the decision was a difficult one, but says the time is right for change—for everyone. "If you're in a leadership position too long, you're no longer effective. You start to see everything the same way. That's why [elected officials] have term limits. The longer you do anything, the more likely you are to stop doing your best."

The pride Amaral feels in a difficult job well done is not without frustration over what he leaves undone—such as forging stronger partnerships between the Medical School and its affiliated hospitals. "Every great hospital has a great medical school, and every great medical school has a great hospital. We're too institution-centric. We each need to focus on what the future could be, even if it means giving something up."

Like living proof of Newton's first law of motion, Amaral is never at rest. His eagerness for a new challenge is palpable, even if he doesn't know what the challenge will be.

"I'm a lucky person who's had opportunities I've chosen to follow, things that are fun and that I can be passionate about. I've never lived a deferred life."

—Sarah Baldwin-Beneich

Right on Track

It's good to have a friend at the starting line.

For almost 25 years, Biomedical Faculty Affairs Officer Jeanie Pertain has taken a yearly hiatus from reviewing faculty appointments and promotions to volunteer at Camp Sunshine, a retreat in Maine for kids with life threatening illnesses—and their families. “When one child is ill, the whole family is affected,” she says. “At Camp Sunshine, everyone’s accepted. Everyone can participate.”

WHO KNEW?

Other than administrative staff, the camp is entirely staffed by volunteers like Pertain.

In Rhode Island, Pertain is also a veteran volunteer of the state Special Olympics track event. Giving her time this way “is not

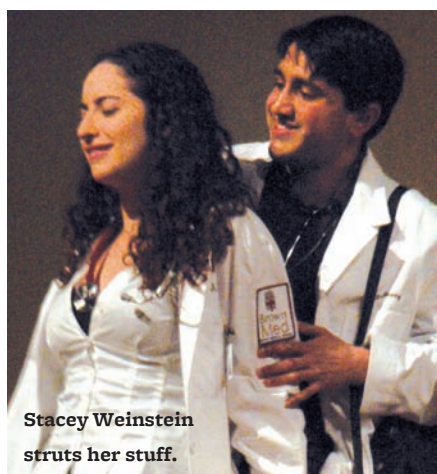
about me,” she says, it’s about giving the athletes “an opportunity to shine” by ensuring they assemble at the starting line on time and in order. That “rewarding and exhausting” job will again be hers during this year’s state games, to be held June 1-4 at the University of Rhode Island.

In the meantime, Pertain is recruiting friends and coworkers. “What you gain in helping,” she says, “is just a wonderful experience.”

—Adam Sutton



Jeanie
Pertain



Stacey Weinstein
struts her stuff.

Hasbro Children’s Hospital’s Asthma Camp. Each year Breeze sponsors a 5K walk to raise a portion of the camp’s total costs. The auction was organized to “get people excited about the race and raise some money,” says Stacey Weinstein ’05 MD’09, who co-hosted the event and took the night’s highest bid at \$469.

Along with a date with their doc-to-be of choice, bidders scored gift packages to such local venues as Roger Williams Park Zoo and the Bank of America Skating Center. Those looking for a more platonic experience weren’t disappointed—in lieu of a date

several contestants offered their services, including Spanish lessons, a bike tune-up, and a violin serenade.

The event took in nearly \$3,650. “I was very hesitant about actually participating,” says Voigt, who commanded a \$200 bid. “If I’m going to go on a date, I want to approach it the old-fashioned way, that’s my philosophy. I then realized how much this would benefit the children with asthma and threw my philosophy out the window. I made the most of the night and actually had a lot of fun participating.”

—Jumoke Akinrolabu

Fifty First Dates

On the auction block.

On a Friday night just two weeks shy of Valentine’s Day, crowds gathered inside Sayles Hall to watch medical students like Cliff Voigt ’05 MD’09 proudly display their goods for a great cause: the Community Asthma Programs at Hasbro Children’s Hospital.

GOOD CAUSE

The charity auction, called Date-a-Doctor, was hosted by Breeze Against Wheeze, a student group organized in 2001 to benefit

OVER HEARD

“Memories of mistakes and poor practice attributable to overwork and too little supervision still haunt me, but I have to monitor a tendency to think ‘wimp’ or ‘lacks medical responsibility’ when a resident wants to leave on time.”

—Professor of Psychiatry **GREGORY K. FRITZ** in a March 8 op-ed in the Providence Journal on the importance, for both patients and trainees, of regulating residents’ work hours. Fritz is also medical director of Bradley Hospital and director of child and family psychiatry at Hasbro Children’s Hospital.

INCEPTION OF PERCEPTION

Sight, sound, taste: all of human sensation begins in the brain when information moves from the thalamus to the neocortex.

Researchers from Brown and University of California, Davis have discovered how cortical cells get activated during this critical transfer. The findings, published in the March issue of *Nature Neuroscience*, may help explain some forms of irregular electrical brain activity, such as epileptic seizures.

“What’s exciting about these findings is that they help to explain how the cortex handles information at the very earliest stages of processing,” says Scott Cruikshank, an assistant research professor of neuroscience and lead author of the article. “And understanding the cortex is critical to understanding not only perception, but memory, language, cognition.”

BRAIN WAVES

A Brown-led research team has, for the first time, recorded activity inside the cells of the hippocampus while simultaneously measuring activity in the neocortex. Recordings from these two brain regions—seats of memory creation and storage—revealed a surprisingly complex pattern of activity. These findings, in the March issue of

the *Proceedings of the National Academy of Sciences*, challenge traditional theories of the role of sleep in learning and memory.

“Scientists have long believed that the hippocampus ... [is] the place where new memories are quickly ‘written’ during the day,” says Mayank Mehta, an assistant professor of neuroscience, who led the research. “During sleep, the theory goes, these memories get copied to the neocortex, the official ledger where they are stored. This theory would suggest that the hippocampus should control communication with the neocortex during sleep. Instead, our findings show that the neocortex controls the communication.”

In a January *Nature Neuroscience* commentary, Mehta suggested that the role of sleep may be to erase memories in the hippocampus as a way of creating a fresh page for the brain’s scratch pad.

HOW TO SPELL RELIEF

In the February issue of *Nature Neuroscience*, Brown scientists explain for the first time why morphine and other opioids are such potent painkillers.

“We’ve known that drugs such as morphine are highly effective at blocking calcium channels, but we’ve never known precisely why—until now,” says Professor of Neuroscience Diane Lipscombe, who led the research.

Lipscombe is an expert in N-type calcium channels, which control the release of neurotransmitters, chemicals that carry messages between nerve cells—including sensations of pain. If you block N-type channels, you can block pain.

Lipscombe and her team reveal that the string of 2,400 amino acids that make up nociceptor N-type channels differs from others by fourteen amino acids. This difference makes these channels much more sensitive to the pain-blocking action of opioids. “In nociceptor N-type channels, you get double-barreled inhibitory action,” Lipscombe explains. “With this new understanding ... drug companies could develop effective new painkillers.”

Postdoctoral research fellow Jesica Raingo is lead author of the article.

ROAD HAZARDS

South Africa has one of the world’s highest rates of HIV infection. New research, led by Assistant Professor of Community Health Mark Lurie and published in February in *AIDS*, shows that the movement of workers between urban and rural areas played a key role in the spread of the epidemic, mainly by increasing high-risk sexual behavior.

“While the epidemic is already pervasive in South Africa, our findings have policy implications for other countries with high rates of population mobility,” says Lurie, a native South African and social epidemiologist. “Countries like India and China could see a surge in HIV rates unless there are proper prevention and treatment efforts among migrants and their partners.”

—W.Y.L. 

INK

BOUND

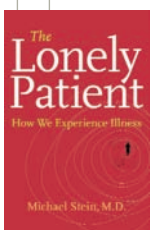
Recent faculty titles.

ATLANTIC SHORELINES: Natural History and Ecology By Mark D. Bertness | PRINCETON UNIVERSITY PRESS, 2007 \$45.00

THE LONELY PATIENT: How We Experience Illness By Michael D. Stein | HARPERCOLLINS PUBLISHERS, 2007 \$23.95

FOURTEEN STORIES: Doctors, Patients, and Other Strangers By Jay M. Baruch | THE KENT STATE UNIVERSITY PRESS, 2007 \$18.95

SIGMUND FREUD: Inventor of the Modern Mind By Peter D. Kramer | HARPERCOLLINS PUBLISHERS, 2006 \$21.95





Jacobs in a
Berkeley, CA,
meditation
center

ZOOM

BY LISA ROWLEY

UP CLOSE AND PERSONAL WITH NIAMA JACOBS

A MIRROR AND A MAGNIFYING GLASS

Med student looks inward for balance and meaning.

Who would have thought that the path to enlightenment passed through rural Rhode Island? Certainly not Niamia Jacobs MD'07. But the Massachusetts native spent time over her third and fourth years of medical school living in the Kwam Um School of Zen monastery outside Providence, in Cumberland.

frenzy of medical school, something calming, quiet, meditative. She googled “Buddhism” and “Providence,” and the Providence Zen Center topped the list of hits. Had the Buddhist group at Brown been placed higher on the list, she might never have ventured out to Cumberland. Call it fate, even karma.

“I’ve always been a spiritual person,” Jacobs says, explaining the “natural progression” that led her to Buddhism and the Providence Zen Center, as the temple is also known. “Officially I was raised as a Christian but with values from other religions—like open mindedness, compassion, a ‘do unto others’ attitude. It was up to me to find out how best to express them in a way that is consistent with who I am.”

Jacobs, a graduate of Wellesley College, traces her first encounter with Buddhism to a family vacation in Hawaii. There on the nightstand of their Waikiki Beach hotel were the Bible, the Book of Mormon, and an introduction to the teachings of Buddhism. She picked up the last of the three and after reading a few pages, found it interesting, even compelling, relevant.

Another important part of the progression was extensive travel that took Niamia’s family to Latin America, the Caribbean, France—pretty much anywhere that Continental Airlines flies, says this daughter of a Continental flight attendant. “Traveling to different places opens you up to a wide range of beliefs and different cultural systems,” she says. “People in different places have very different ways of doing things, and yet there is a oneness, a sameness to all the earth’s peoples.” She was twelve or thirteen and with her family in Mexico City when she first recognized this idea.

“I saw a small child playing in the street in the dirt and I realized the oneness, the universality of being human. Despite our great differences, we all want and deserve the same things: good health, access to a good education, the opportunity to earn a decent living to support our families.” It was an outlet for that kind of thinking that Jacobs was looking for when she turned to Buddhism.

SITTING PRETTY

Soon after she arrived at Brown, she began searching for something to counteract the

ZOOM

Of course, the free meals didn't hurt.

As part of its community outreach, the Providence Zen Center offers a free public dinner every Wednesday night. Members serve a vegetarian meal for all interested comers, which is followed by instruction by the monks in Buddhist teachings, chanting, and meditation. For Jacobs, what began as an occasional visit to the Zen Center gradually turned into two or three a semester, then one a month, eventually every Wednesday evening.

She had never intended to live there—in fact, at first the practice sessions were uncomfortable for her and much of the process counterintuitive to a high-achieving medical student. The sitting position for meditation was unnatural, and when she told the Zen master that her legs often fell asleep in the cross-legged position, he responded, “What’s wrong with that?”

But the more Jacobs went, the more comfortable she became, and the more she valued practicing the meditation and chanting. When she did decide to live there, what she intended as a short stay grew into the better part of a year.

Jacobs came to medicine in similarly gradual fashion. “I always knew I wanted to do something where I could help people,” says the international relations major who enjoyed volunteering in a local hospital during high school but did not discover an interest in science until late in her undergraduate career. “In fact, when I first started taking science classes at Wellesley—it’s funny to think of this now—but I didn’t think women could do science. Then I saw the other women, and I thought, ‘Wow, maybe I can do that, too.’”

When she told the Zen master that her legs often fell asleep in the cross-legged position, he responded, “What’s wrong with that?”

After college Jacobs worked for a market research firm, where her boss “saw something in my future besides statistical analysis.” He paid the tuition for her first night course at Columbia, a class in physics that she loved. Rounding out the picture was the mother of kids Jacobs babysat, an ob-gyn she admired and sought to emulate. Jacobs enrolled in the post-baccalaureate pre-med program at Columbia and then applied to Brown’s medical school. Incorporating her interest in science, her “awareness of the beauty of the human body,” and her desire to be of service to others, “medicine just seemed best for me,” she recalls.

REAL SIMPLE

With the full support of her family, Jacobs moved into the Providence Zen Center in 2006. By then a third-year medical

student, she joined a dozen or so other residents, roughly half of whom were monks (instructors who worked at the monastery), the other half students (lay people like Niama who hold jobs outside as computer programmers, social workers and the like). The idea is that by living, eating, and practicing together, temple residents advance their shared commitment to seek enlightenment, help others, and attain a clear and true self-understanding. Or as Jacobs

“When you see the same few things in the same place every day, you realize that what changes a situation is what you bring to it.”

says, smiling, “The students were there to frustrate and test the patience of the monks.”

For all the residents, days began early, with nearly two hours of pre-breakfast practice that took place in the main hall every day, including weekends:

4:45 a.m.	Wake up
5:00	108 Bows
5:30	Chanting
6:15 - 6:45	Sitting meditation

Her hospital rotations kept her from making all the morning practices, but Jacobs attended when she could. More often she was able to make it back for dinner and evening practice—more chanting, sitting, meditation.

“It’s really about being present in what you’re doing,” she explains. “When you’re practicing, you practice. When you’re at work, you work. When you eat, you eat. It’s maintaining a focus, or mindfulness, on what you are doing.”

During breakfasts, for instance, residents ate together but did not speak, to better focus on the present. “It’s taking care about what food you choose to put on your plate,” Jacobs explains, “but it’s also taking care not to take more than you need.” This awareness of others is part of the compassion she tries to practice in her daily living. “It’s the whole ‘Tread lightly, live gently’ thing,” she says.

This simplicity of monastic living was something Jacobs quickly embraced. Residents ate plain vegetarian meals out of bowls while seated on cushions on polished hardwood floors. Furnishings were sparse; her room had little more than the futon mattress she slept on and a small dresser for clothes. The Dharma room, the main hall where residents practiced, sits empty but for the altar of Buddha with its offerings of candles and incense.

Coupled with simplicity is continuity. “When you see the same few things in the same place every day, you realize that what changes



Jacobs shares
a meal at
the Providence
Zen Center

a situation is what you bring to it,” Jacobs explains. “You need to recognize and accept the patterns you have in yourself—not necessarily to demolish them but to be aware of them so you can better understand how you are with others.”

Living communally at the temple “encourages you to be a contributing part of a team, to become responsible to a larger whole. You learn how to shoulder weight—not just in the sense of doing your share, but by learning how to contribute compassionately to your environment. You can then extrapolate that experience to the world outside, to help alleviate the suffering of others.”

A NOBLE PATH

Helping adolescents and their families as a child psychiatrist is how Jacobs envisions doing that in the future. She decided on this area of medicine after spending her psychiatry rotation with a group

of teenagers in an inpatient hospital in Providence. She loved working with kids and was impressed by their ability to turn their lives around—“though not all did, sadly”—and by their contributions in group sessions to the therapy of others. She finds such openness “powerful,” and rare in adults.

The example set by the monks will serve as a good model for Jacobs. She was deeply touched by their compassion, their patience with the residents, the way they treat all beings equally. “The monks encourage you to be yourself, to identify and be true to the values and practices you live daily, even when that means leaving the monastery.” Another natural progression, she points out. “You take what you’ve learned at the monastery and test it out in the real world. Then you see what happens.”

What happened in Jacobs’s case is that a research opportunity took her not just outside the monastery but all the way to the Osher Center for Integrative Medicine at the University of California, San Francisco. There she is nearing completion of a six-month project on mindfulness-based stress reduction in HIV-positive patients. She enjoys the research a lot, often working through her lunch hour, eating at her desk, “which is not a very Buddhist thing to do at all,” she acknowledges.

Friends have been quick to point out the irony of her leaving the Providence Zen Center for the nation’s meditation capital. When she first moved to California, she lived for two months in Berkeley in a house that was formerly a Zen center and owned by a woman who is a student of the Kwan Um School. There she could continue to practice, sitting most days in the Dharma room. The long commute to San Francisco eventually dictated a move into the city, but she tries to meditate for at least 20 minutes every morning.

“The cool thing about meditation,” Jacobs says, “is that it gives you a mirror onto yourself. Actually, a mirror *and* a magnifying glass, so you can better see how you work.”

Jacobs will soon wrap up her research and return to Brown in

“You take what you’ve learned at the monastery and test it out in the real world. Then you see what happens.”

time for graduation. When she does, she will stay at the Providence Zen Center. Later this summer, she will move back to the Boston area for her residency in psychiatry at Cambridge Hospital and Harvard. She plans to continue her Buddhist training at the Cambridge Zen Center throughout her residency.

“It seems that earlier in my life, I did a lot of traveling, physically, over distance, to other countries,” she says. “Lately I’ve been doing more internal traveling—the meditation, growing self-awareness. I’m still discovering things about myself.”



Connection

Match Day

Photos by Stewart Martin

This Calls for a Toast!



Sarah DeNucci and her father, Thomas DeNucci MD'80, celebrate her acceptance into Brown's internal medicine program.

At the stroke of noon on March 15, the MD Class of 2007 tore open the envelopes that held their fate. The soon-to-be graduates matched with top residency programs around the country and right here in Rhode Island. Fourteen students will be going to programs affiliated with The Warren Alpert Medical School. Read on to find out if any will be coming to a residency program near you.

• **Anesthesiology**

ESTHER KIM

U. of Iowa Hospitals and Clinics Program

SINH NGUYEN

Massachusetts General Hospital/Harvard Medical School

Salem Hospital/North Shore Medical Center

Internal Medicine (Prelim)

TERENCE WALLACE

Hospital of the University of Pennsylvania

New York Presbyterian

Hospital/Columbia University Medical Center

Internal Medicine (Prelim)

• **Dermatology**

ROBERT DYER

Rhode Island Hospital/The Warren Alpert Medical School of Brown University

The Warren Alpert Medical School of Brown University

Internal Medicine Residency (Prelim)

IKUE SHIMIZU

Rhode Island Hospital/The Warren Alpert Medical School of Brown University

The Warren Alpert Medical School of Brown University

Internal Medicine Residency (Prelim)

ANI TAJIRIAN

UMDNJ-New Jersey Medical-Newark

The Warren Alpert Medical School of Brown University

Internal Medicine Residency (Prelim)

JENNIFER JENKINS

Rhode Island Hospital/The
Warren Alpert Medical School
of Brown University

*The Warren Alpert Medical
School of Brown University
Internal Medicine Residency
(Prelim)*

• **Emergency Medicine**
SORA CHUNG

University Hospital/U. of
Cincinnati College of Medicine

CAMERON MCCLURE

U. of California, Davis Medical
Center/U. of California,
Davis School of Medicine

SHANE RUTER

Boston University Medical
Center

*The Warren Alpert Medical
School of Brown University
Internal Medicine Residency
(Prelim)*

• **ENT****JAE LOON LIM**

U. of Washington Program/
U. of Washington School of
Medicine

COURTNEY VOELKER

Barnes-Jewish Hospital/
Washington University-St.
Louis School of Medicine

• **Family Practice****SHEREE CARNEY**

University Hospitals/
U. of Mississippi School
of Medicine

HELEN BURBANK-SCHMITT

Group Health Cooperative/
Virginia Mason Medical
Center

KRISTAN DIAZ

Christus Spohn Hospital
Corpus Christie-Memorial

AKITA EVANS

Carolinas Medical Center-
Charlotte, NC

PEBBLE KRANZ

Strong Memorial Hospital/
U. of Rochester

FERNANDO MORENO

Jamaica Hospital Medical
Center/Mt. Sinai School of
Medicine

JAMES PAGE

Great Plains Medical
Foundation/Deaconess
Hospital

EBONI SMITH

Providence Hospital/
Georgetown University

• **Internal Medicine****SARAH DENUCCI**

The Warren Alpert Medical
School of Brown University
Internal Medicine Residency

DARPUN DHAWAN SACHDEV

Mt. Sinai Hospital/Mt. Sinai
School of Medicine

SHAHIDA FAROOQI

Cedars-Sinai Medical Center

OMAR HYDER

The Warren Alpert Medical
School of Brown University
Internal Medicine Residency

JUDY JANG

Barnes-Jewish Hospital/
Washington University-St.
Louis School of Medicine

EUGENE LIU

Tufts-New England Medical
Center

MITHUN NALLARI

Albert Einstein College of
Medicine/Montefiore Medical
Center

JUDY NEE

Boston University Medical
Center



Natasha Rybak and
Sarah Taylor-Black
steal a glance at
Suzette Brown's
letter.

MADHAVI PAREKH

New York Presbyterian
Hospital/Columbia University
Medical Center

AMANDA GRUBER POWELL

Beth Israel Deaconess Medical
Center/Harvard Medical School

IDO PREIS

Boston University Medical
Center

ADAM ROJAN

Hospital of the U. of
Pennsylvania

CATHERINE SMITH

U. of Maryland Medical Center

SARAH TAYLOR-BLACK

New York Presbyterian
Hospital/Columbia University
Medical Center

ELIZABETH WON

New York Presbyterian Hospital/
Weill Cornell Medical Center

JENNIFER YATES

Johns Hopkins Hospital/Johns
Hopkins School of Medicine

• **Internal****Medicine-Primary****NANCY BRIM**

Brigham & Women's Hospital/
Harvard Medical School

MARICRUZ MERINO

Brigham & Women's Hospital/
Harvard Medical School

DAVID SEARS

New York Presbyterian
Hospital/Columbia University
Medical Center

• **Internal Medicine**
(Prelim)**VICTORIA CHIU**

The Warren Alpert Medical
School of Brown University

JARED JAGDEO

Maimonides Medical Center/
SUNY Health Sciences Center

• **Internal****Medicine-Psychiatry****VINCENT CAPALDI**

Walter Reed Army Medical
Center

SHEILA LAHIJANI

Rush University Medical
Center

• **Medicine/Pediatrics****TAMARA CHANG**

U. of Massachusetts Medical
School

NATASHA RYBAK

Rhode Island Hospital/The
Warren Alpert Medical School
of Brown University

LAURA SIMON

U. of Pittsburgh Medical Center

ROY KAO

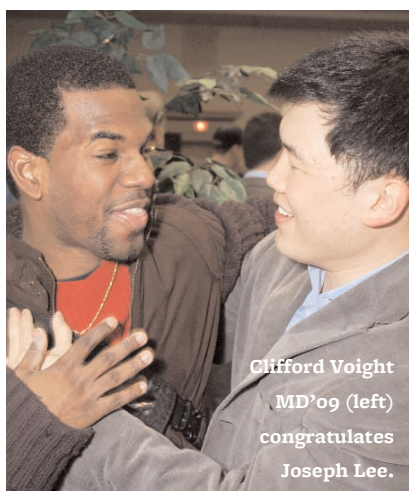
Christiana Care Health System

• **Neurology****JAMES ZIMMERMAN**

Stanford Hospital and Clinics/
Stanford University Program
*Boston University Medical Center
Internal Medicine (Prelim)*

CHARLENE HOOPER

Yale-New Haven Hospital/Yale
School of Medicine



Clifford Voight
MD'09 (left)
congratulates
Joseph Lee.

Match Day

MONICA LUCERO

U. of Massachusetts Medical School

TERRISSA MARTIN

Winthrop University Hospital/Winthrop University Hospital Program

• Orthopedic Surgery

JOSEPH K. LEE

New York Presbyterian Hospital/Columbia University Medical Center

SURENA NAMDARI

Hospital of the University of Pennsylvania

PETER VEZERIDIS

Massachusetts General Hospital/Harvard Medical School

• Pediatrics

SARAH ATUNAH-JAY

U. of Minnesota Medical School/Children's Hospital and Clinics

SUZETTE BROWN

Duke University Medical Center/Duke University Hospital

STACY CROTEAU

Boston Children's Hospital/Harvard Medical School

LAUREN GELLER

Mt. Sinai Hospital/Mt. Sinai School of Medicine

EDEN KAHLE

Children's Hospital/U. of Pennsylvania

DANIEL KELLY

New York Presbyterian Hospital/Weill Cornell Medical Center

IVONE KIM

U. of Pittsburgh/Children's Hospital of Pittsburgh

CARLY LEVY

DuPont Children's Hospital/Thomas Jefferson University

STEWART MACKIE

Rhode Island Hospital/The Warren Alpert Medical School of Brown University

LEENA SASTRY

St. Louis Children's Hospital/Washington University

JANELL THOMPSON

U. of Arkansas College of Medicine/Medical Sciences Program

ELIZABETH WALLIS

Children's Hospital/U. of Pennsylvania

WARREN YOUNG

New York Presbyterian Hospital/Weill Cornell Medical Center

• Plastic Surgery

GORETTI HO

U. of Southern California/LAC & USC Medical Center

• Psychiatry

NICOLE HERSCHENHOUS

Cambridge Hospital/Harvard Medical School

NIAMA JACOBS

Cambridge Hospital/Harvard Medical School

ROBBIE JEFFERSON JOSEPH

The Warren Alpert Medical School of Brown University Psychiatry Residency/The Warren Alpert Medical School of Brown University

JOHN KELLEHER

UCLA Semel Institute for Neuroscience/UCLA

JANET SHU

Mt. Auburn Hospital-Longwood/Harvard Medical School

• Adult/Child Psychiatry

CLARA KIM

U. of Massachusetts Medical School

• Radiation-Oncology

SOPHY HERNANDEZ

Loyola University Medical Center

Roger Williams Medical Center

Internal Medicine (Prelim)

ROBERT MARKELEWICZ

Tufts-New England Medical Center

Roger Williams Medical Center

Internal Medicine (Prelim)

• Radiology

MARISA KASTOFF BLITSTEIN

Rhode Island Hospital/The Warren Alpert Medical School of Brown University

Caritas Carney Hospital

Internal Medicine (Prelim)

TARA TREDENNICK

Emory University Program/

Emory University School of Medicine

Mercy Hospital of Pittsburgh Transitional

• Surgery

SHANI BELGRAVE

U. of Maryland Medical Center/University of Maryland

EMILY CLARKE-PEARSON

Beth Israel Medical Center/Albert Einstein College of Medicine

MELISSA DONOVAN

Christiana Care Health System

MICHAEL KURTZ

Massachusetts General Hospital/Harvard Medical School

MARIUXI MANUKYAN

Indiana University School of Medicine

BENJAMIN MEGA

Monmouth Medical Center-NJ

• Surgery (Prelim)

VINCENT HARISARAN

Rhode Island Hospital/The Warren Alpert Medical School of Brown University

ANDREW TAITANO

Rhode Island Hospital/The Warren Alpert Medical School of Brown University

• Transitional

JODIE SKRZAT

National Naval Medical Center

• Urology

ANDREW HOROWITZ

Case Western Reserve University/University Hospitals of Cleveland Program

Case Western Reserve University/

University Hospitals of Cleveland

Program Surgery (Prelim)

SHIDEH SHAFIE

Rhode Island Hospital/The Warren Alpert Medical School of Brown University

The Warren Alpert Medical School

of Brown University Internal

Medicine Residency/The Warren

Alpert Medical School of Brown

University Surgery (Prelim)



Dominick Tammaro

'81 MD'84 hugs

Natasha Rybak, a

newly accepted

trainee in his

Med/Peds

program.



Thrills, Chills, and Spills

An intern survives the first year.

Remember riding roller coasters as a child? I loved them. I can still feel the anticipation as the coaster slowly ascended, ever upward, until that brief pause at the peak where the track disappeared and time stood still with the sky at my fingertips and the whole wide world laid out below. And then *whoosh!* As the world fell out from under me, arms flung wide and body thrown back into the seat, I unleashed my voice to scream at the heavens while the earth raced toward me fast, fast, fast, until I was suddenly speeding around turns, banking into hills, whirling upside down. *Oh my god we're crazy! I can't believe we're doing this!* Legs rubbery and heart pounding, I'd swear never to ride another coaster. Ten minutes later I would be back in line, seeking that incredible feeling of being on top of the world.

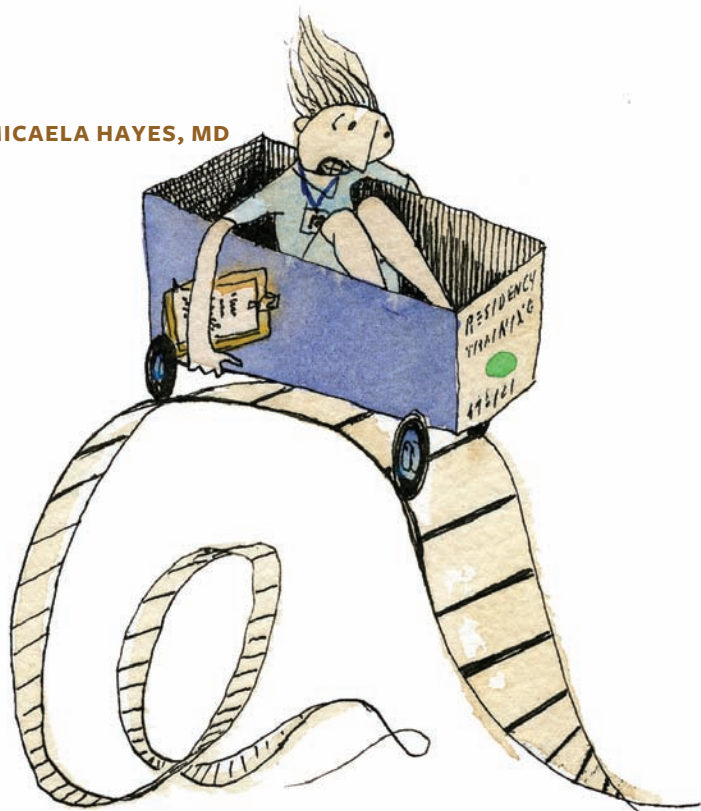
Imagine for a moment that your job is like riding a coaster. At the peak you observe and learn as you never have before. The intensity fosters bonding and camaraderie with your fellow riders. But it also rushes at you like the ground, fast, fast, fast, with treacherous curves and gut-wrenching uncertainty. And you cannot stop. This ride has one place on and one place off. To see the top of the world, you must hang on for the loop-de-loop.

As an intern, I've spent the last nine months riding this roller coaster. Up at 5:00, to the hospital by 6:00, learn who stayed sick, got sick, got better overnight. Race through pre-rounding—vitals, meds, notes, eyes on the patient. Rounding as a team—What's my plan? Was our hypothesis correct? What the hell is thyrotoxic periodic paralysis? At noon a brief respite, then back into the fray—laboratory

Each day **I hung on for dear life**, hoping no one would get hurt.

and test results, dictate and discharge, unstable patient off to the MICU. Twelve hours after arriving I race home to put my daughter to bed, eat dinner with my husband, and claim what sleep I can before the cycle begins anew.

Some days everything clicks. A patient's presentation coalesces perfectly, leading me to the correct assessment. An acutely unstable patient improves with my interventions. A family meeting heals patient and family alike. Yes! *I am a doctor!* Other days, everything I touch turns to mud. The young woman undergoing chemotherapy develops a life-threatening infection. The young man admitted for



swallowing pencils fills out his own menu, with predictable results. The ever-present family member maligns me to nurses, my attending, my resident, and my co-intern but silently sulks in my presence. *How will I ever become a good doctor?*

Survivors of internship talk about hitting a wall. For me this moment came in March in the form of a soul-numbing weariness. Day after day I trudged to the roller coaster. I could see the peak but had lost my desire for its thrill. All I felt was the lurch as my stomach dropped out from under me and the ground raced inexorably closer. Each day I hung on for dear life, hoping no one would get hurt. I endured until at long last the month was over.

Now, restored by vacation and a lighter schedule, I've wondered why this experience was merely soul-numbing rather than soul-crushing. The answer? My colleagues. Everywhere I turned, there was a friendly face, a word of encouragement, help with a patient.

One evening my co-intern stayed late to put in a central line so I could pick up my daughter. Another day my resident spontaneously brought me milk and cookies. Other times residents quickly appeared at the bedside to offer assistance with unstable

patients. Several attendings noted my weariness and offered their support. I had to ride the roller coaster, but I never had to do it alone.

As everyone around me eagerly awaits spring, I long for a different change. Only two more months and I can get off the roller coaster! Of course, then I begin the arduous transformation of becoming a resident—but that's a topic for another column.

Micaela Hayes, a first-year resident in Brown's general internal medicine residency program, grew up riding steel and wooden roller coasters at Darien Lake Theme Park in Buffalo, NY.

Prepare for the Worst

Training front-line physicians in Southeast Asia.

“Do you know what this is, Doctor?”

We were standing in the ICU of Cambodia’s Angkor Hospital for Children. The chest x-ray looked to be that of a two-year-old. The child’s heart was a little large, and the lungs were covered with a multitude of tiny nodular opacities. I’d seen it in textbooks but never in a patient.

“Miliary tuberculosis and cardiomegaly?”

Dr. Lyda nodded. “Listen to his chest.”

The child was lethargic and unresponsive, but his heart bounced aggressively against his ribs. He had a harsh holosystolic murmur I’d read about but never encountered in practice. “Ventricular septal defect.”

He looked malnourished. Malnutrition is common in Cambodia—the AHC had other children with marasmus, beri-beri, and kwashiorkor—but that wasn’t his only problem. Like an estimated 15,000 other Cambodian children, he had HIV/AIDS, which, in combination with the malnutrition, had weakened his immune system enough for TB to deliver the knock-out punch.

Cambodia has an adult HIV prevalence of 2.6 percent, the worst in Asia, and 15,000 Cambodians a year die of AIDS. More than likely his parents were already incapacitated or dead. A tragedy of history had caused this child’s diseases. The Khmer Rouge genocide

first destroyed the economy and disrupted social institutions and public health. Then HIV spread rapidly, after its introduction by UN peacekeepers.

I went to Southeast Asia after a long stay in Mongolia, where I work with the Ministry of Health developing emergency services. In Southeast Asia I wanted to see how other developing countries dealt with increasing trauma mortality—deaths and injuries from motor

vehicle trauma were on the rise both in Cambodia and Laos. In addition, I wanted to compare different approaches to foreign-supported residency education. The Mongolians were keen to start an emergency medicine residency program, and Laos and Cambodia had new residency programs built along American lines.

Varun Kumar, a Brown pediatrics residency graduate, took me on rounds with his Cambodian residents. He’d been volunteering at the Angkor Hospital for Children since finishing his own training at Hasbro Children’s Hospital, in Providence, and he’d watched the AHC develop into a local teaching center. He explained that the children presenting for care there rarely had just one

serious pathology: dengue fever, melioidosis, leptospirosis, malaria, thalassemia, congenital malformations, meningitis, scrofula, and necrotizing soft-tissue infections tended to present with multiple comorbidities.

The degree of illness dwarfed anything I’d seen at Brown or in four years of emergency medicine training in inner-city Brooklyn. Most of the kids being treated as outpatients would clearly have been admitted if they had presented in a U.S. emergency department; most of the regular ward patients would have been ICU candidates. The children in the ICU had extreme pathology that one virtually never encounters in America. Unfortunately, I didn’t encounter

The prehospital care **system is so underdeveloped** that most seriously injured Cambodians **die before making it to a hospital.**

many road trauma patients in the AHC. Dr. Kumar explained that the prehospital care system is so underdeveloped that most seriously injured Cambodians die before making it to a hospital. There is no public ambulance service in Cambodia.

The patients come from all over northern Cambodia, their families camping around the hospital. The AHC treats them even if they can’t pay and offers far better care than government clinics. Successful



was intubated using rapid-sequence induction of anesthesia. The procedure had gone much more smoothly than the pediatric resuscitations I had seen in America. But then, the AHC had far more critically ill children, so they had more practice. The number of invasive procedures to be done is so high that foreign volunteers are used for help.

NORTHWARD, TO LAOS

I was curious to see how health care and resident education compared in Cambodia's northern neighbor, Laos. An additional objective was to teach evaluation and management of motor vehicle trauma. Laotians have a life expectancy at birth of fifty-five-and-a-half years, and they still suffer fresh traumas from landmines and the two million tons of explosives dropped by American planes during the Vietnam War. To make matters worse, the death toll from motor vehicle accidents has increased over recent years—from 290 in 2004 to 480 in 2006.

Health Frontiers, a small American NGO, started Laos's first pediatrics residency in 1997 and an internal medicine residency in 2002. Unlike the AHC, these programs were based in government hospitals, and foreign volunteers were permitted to lecture and give advice, but not directly plan and deliver care. I wondered if this would produce quality clinicians.

Vientiane, the capital city, is perched on the bank of the Mekong River. When I arrived

fund raising means that most of the resources of a developed-world hospital were available. And there is a surplus of expert volunteers, many attracted by the sandstone temples of Angkor Wat just to the north. Intriguingly, the hospital is run completely in English. Housestaff and nurses are given daily lessons, which makes it easy for foreign volunteers to share knowledge and technical skills.

I watched as young Cambodian doctors resuscitated a seven-year-old boy with fever, hypotension, and depressed mental status. Within minutes an intraosseous line was bolusing him fluids and he

in the height of the dry season, the river had shriveled to a fraction of its usual width. Its bed was a vast expanse of mud populated by millions of tiny frogs. On the heights above the river is a park that is a popular site for early morning aerobics and mid-day naps. There are also dozens of Beerlao bars. Beerlao, Laos's national beer, is one of the largest industries in the country and donates supplies to the hospital system, so one frequently encounters patients with Beerlao sheets, and Beerlao calendars featuring pretty Beerlao models hang in many doctors' offices.

FIELDNOTES

The Mahosot Hospital is also on the Mekong River. An old, Soviet-style concrete box, it sports a bright red hammer-and-sickle flag and walls covered in bougainvillea. I rounded with the internal medicine residents and Dr. Cindy Chu, a long-term Health Frontiers volunteer.

“Can you consult on a patient, Dr. Amitai?” asked one doctor. “It’s an unusual case...We think she has fibromyalgia.”

Why had she been admitted to the hospital for fibromyalgia? She’d wanted to, and she’d paid for it. Laos was nominally communist, but medicine was strictly “cash and carry.” If you wanted care, you had to pay for it. If you couldn’t, you were out of luck. Pricelists for lab tests and procedures hung in the hospital lobby so you could easily calculate how much your care would cost.

Which made it perplexing that this woman was hospitalized. I offered my thoughts on fibromyalgia, which did seem the correct diagnosis for this case, and then we moved on. The next woman had what looked like osteoarthritis. She’d wanted to be admitted too.

It costs about 5,000 Kip (about 50 cents) to be admitted for a day to a bed in a room of six; air-conditioning is extra. Family supply bedding and food and buy medications, needles, tubing, I.V. fluid bags, and gloves for the floor nurse to administer. Five thousand kip isn’t too bad,

If you wanted care, **you had to pay for it.** If you couldn’t, you were **out of luck.**

even in a country with a GNP per capita of \$442. That could explain why some people seem to be using the hospital for short vacations.

Not all patients hospitalized in Laos have minor conditions, of course. But if you are really sick or injured, it is difficult to get to a hospital. There is no organized emergency ambulance system in Vientiane. Outside the capital, it is even harder to access medical care. Only a sixth of the population lives in a town or city. Roads and communications are poor and diagnostic testing and surgical facilities primitive at best. There is a great ethnic diversity of hill tribes, as well as phenomenal natural attractions—tigers are a danger in some areas, and there are still herds of wild elephants—which promise a bright future in ecotourism. Western-style medicine, however, has yet to make much of an impact.

If there aren’t a lot of people coming to the hospitals for acute care, there are nevertheless many patients at the Rehabilitation Center. According to the Center’s statistics, landmine and other unexploded ordnance injuries account for more than half of all disability in Laos. Patients arrive from the countryside missing limbs, sometimes still bearing chronic infections from their injuries. They hop around the Japanese-subsidized Center waiting for prosthetics, then go back to their farms in the provinces.

The children stay for longer periods. Lacking basic medical care in the provinces, many come to Vientiane blinded or deaf from infec-

tions. I watched a class of deaf children improvise a sign language one new word at a time. They were fascinated by computers—on seeing pictures of definitely non-Laotian sea lions, they instantly devised a new sign. There were even sports for the blind children—they played a version of volleyball, hitting the ball under the net.

In the hospital I lectured to the residents on evaluation and management of common emergent conditions, and visited the existing emergency rooms. By developing-world standards they are surprisingly well equipped; the Japanese and French had helped pay for hospital renovations. But they are staffed by residents reluctantly pulled down from the inpatient wards, as there are no programs available to train emergency specialists.

“We asked for help,” said Dr. Phat, a genial anesthesiologist charged by the government with developing emergency medicine post-graduate training. “The French said there was no such thing as specialized training in emergency medicine, so they wouldn’t help us!”

Dr. Phat was the perfect translator for the grand rounds lecture I delivered on motor vehicle trauma management and injury prevention. While the Health Frontiers-trained residents didn’t need translation (they, too, have English lessons folded into their curriculum),


many Laotian nurses and community doctors came to listen to the discussions of case scenarios and trauma protocols.

I gave them some tricky presentations. “A sixteen-year-old girl is brought to you after being struck by a car at high speed.


What are your management priorities?” I showed them a gory picture of a patient I’d seen in Mongolia with bilateral open tibial fractures. The Mongolians had rushed to treat her legs but missed her pneumothorax and head injury.

A young pediatrics resident raised his hand. “First, she must be stabilized. We must check her mental status and ensure that she can breathe and has no immediately life threatening injuries!”

This was a great answer, and very reassuring for the future of Laotian medicine. The country might be impoverished, communist, and short on infrastructure, but junior clinicians were learning quickly and would remake the health care system. If it can be done in Laos, the most isolated and heavily bombed country in Asia, it can be done anywhere.

Laos and Cambodia showed me that western-style training programs, if sufficiently funded, aided by a continuous volunteer presence of expert instructors and backed by local political support, can produce high-quality physicians even in the most war-ravaged settings. The next challenge will be for those newly trained clinicians to spread their knowledge throughout their countries, improve access to emergency medical care, and reduce trauma mortality. 

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Warren Alpert,
circa 1960.

BY EILEEN O'GARA-KURTIS

Fortune Favors the

B brave

More than fifty years ago, a young entrepreneur launched a company out of a modest building on Eddy Street in Providence. Soon, thanks to a transformative \$100 million gift from the charitable foundation he created, the area will soon welcome a medical school that bears his name.

The year was 1950, and America's postwar boom was in full swing. Nat King Cole's *Mona Lisa* was on the radio.

Guys and Dolls opened on Broadway. Antihistamine was discovered. The first pagers were developed. The Korean War loomed.

Thirty-year-old Warren Alpert had arrived in Providence, fresh from a position at the New Jersey headquarters of the California Refining Company and eager to take a tiger by the tail as the CEO of his own company. Before that, the Chelsea, MA, native had worked at Standard Oil in San Francisco. Before that, he had capped his Boston University education with a Harvard MBA.

Before that, he had been on Omaha Beach.

"I remember him coming home in 1944, badly hurt, walking with a cane," says Alpert's nephew, Herbert M. Kaplan, the

because of the ultimate success of its members."

The company that Alpert started with, as he used to put it, "\$1,000 and a used car" grew into one of the top 400 privately owned companies in the United States. With more than \$1 billion in annual sales, Warren Equities today employs more than 2,100 people in eleven states, deriving its revenue from sales of fuel and groceries at the 400 service stations and convenience stores that operate under its Xtra Mart brand, and from interests in transportation and real estate.

THE BEST TABLE IN THE PLACE

While guiding the growth of Warren Equities, Inc.—which has always been headquartered in Providence—Alpert led a life illuminated with all the glamour of classic mid-century Manhattan. Based in a pent-

Massachusetts, and achieving what he did," says Kaplan. "He went from being very poor to being very rich overnight."

Alpert appreciated vision, talent, and entrepreneurship—and had a special interest in staying healthy and advancing health care and medical science.

"Warren was a physical fitness fanatic," Kaplan remembers. "He worked out every morning from 5:00 to 7:00 at a gym that trained professional boxers. He was in better shape than a lot of college athletes."

When he founded The Warren Alpert Foundation in 1986, a primary goal was to highlight and reward the work of medicine's big thinkers—scientists who were working to cure disease. Today, the Foundation receives more than fifty nominations every year for its Alpert Prize, which honors the world's top physicians and scientists with a \$150,000 award at its annual luncheon.

"He wanted to motivate people with talent to find cures for disease. He wanted to reward those who've got the magic."

current CEO of Warren Equities, Inc. and executive vice president of The Warren Alpert Foundation. "They didn't send you home [from World War II] unless you were badly hurt."

Alpert was awarded the Purple Heart for his sacrifice during the D-Day invasion and immediately began to make big plans for his civilian life. The education benefits of the G.I. Bill enabled him to enroll at Harvard Business School, where he joined such other future captains of industry as William Hewlett and David Packard in the famed Class of 1947.

"The Class of 1915 at West Point had been known as 'the class the stars fell on' because it produced so many generals, including President Eisenhower," says Kaplan. "Warren's class at Harvard was known as 'the class the bucks fell on'

house apartment in the Ritz Tower, of which he was president for 27 years, he dined in the city's most storied restaurants amid heiresses, heads of state, and Hollywood elite. He reveled in sartorial splendor, black-tie formality, and always getting one of the best tables in the place—without having to make a reservation.

"I was seated with him once at what he described as 'the second best table,'" remembers Kaplan, "when a very elegant woman swept by and said to him 'We haven't talked in a while ... we must get together.' It was the Duchess of Windsor. I asked him if he knew her and he said that he didn't—but that, based on where he was seated, she must think that he's either very important or has a great deal of money."

"Warren was very proud of growing up in Chelsea, one of the poorest cities in

"Warren believed in making a great impact on mankind, and he believed that the way to do that was through medicine," says Kaplan. "He wanted to motivate people with talent to find cures for disease. He wanted to reward those who've got the magic."

A LAST GREAT GIFT

Alpert died on March 3, 2007, in New York City, at the age of eighty-six, a long time and distance from his hardscrabble beginnings in a working-class Massachusetts town, where he had sold linens out of his father's car as a child. He had become one of the heroes of the 20th century—a national business leader and a great philanthropist.

The last major gift made by The Warren Alpert Foundation during Alpert's lifetime—capping years of philanthropy benefiting Boston University, Harvard Medical



Alpert (upper left) at the opening of Warren Way, the headquarters of Warren Equities, Inc. Herb Kaplan (below) and his daughter, Bevin, stand before a portrait of Alpert at the press conference announcing the gift.



School, Harvard Business School, and Mount Sinai Hospital among other organizations—was his \$100 million gift to Brown.

The gift will dramatically strengthen Brown's medical school by creating an endowment for The Warren Alpert Scholars Program, which will provide scholarship support for medical students; establishing a fund for biomedical research and a fund for faculty recruitment; and providing for new endowed professorships and an endowment to support faculty-designed innovations in medical education.

Alpert's gift will also partially finance the construction of a new building, to be located in the Jewelry District or near the South Providence campus shared by Rhode Island Hospital and Women & Infants Hospital, that will house classrooms, administrative offices, and other instructional space. The construction of the building will mark the first time in the history of Brown's school of medicine (which in January was renamed The Warren Alpert Medical School of Brown University, in honor of Alpert's gift) that the school will have a defined home, providing an important touchstone for students, alumni, and faculty.

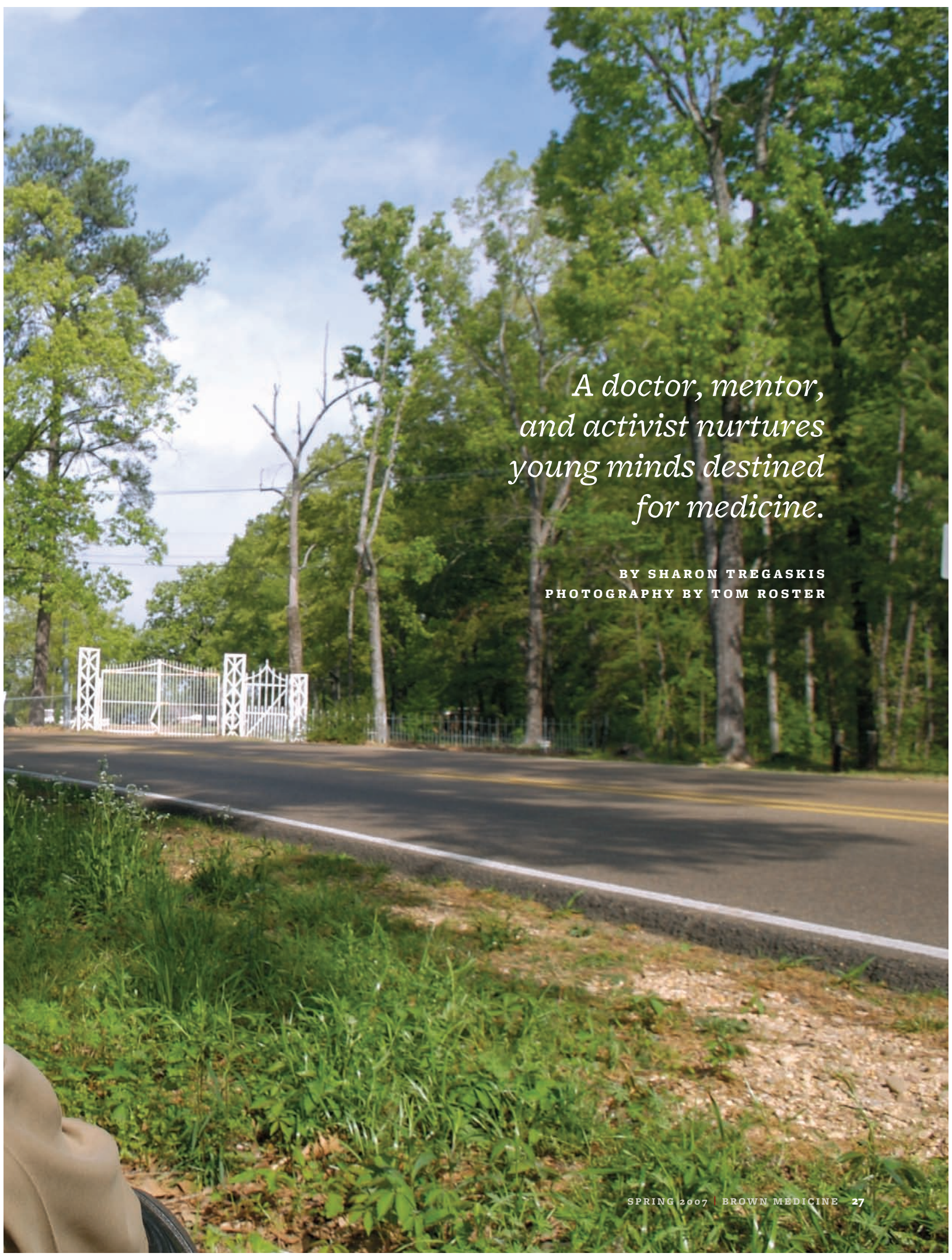
"This gift is a perfect fit, given Warren Alpert's longstanding dedication to biomedical research," says Dean Eli Y. Adashi. "It is also wonderfully appropriate in the sense that the ethos of this institution very much reflects Mr. Alpert's entrepreneurial spark. Just as he built an extraordinary company on the strength of hard work and vision, our founders created this medical school from little more than a dream and a tremendous sense of purpose. And we continue to recruit the kinds of faculty and students who share Mr. Alpert's drive to make a difference in the world."

Eileen O'Gara-Kurtis is a frequent contributor to Brown Medicine. She is the founder and president of Silver Branch Communications, LLC, a strategic communications consultancy based in Seekonk, MA.

Bob Smith sits
outside the gates of
Tougaloo College
near the bend in the
road where he was
stopped by police
in 1963.

Reap What You Sow





*A doctor, mentor,
and activist nurtures
young minds destined
for medicine.*

BY SHARON TREGASKIS
PHOTOGRAPHY BY TOM ROSTER

Dr.

New York Times
articles (below) from
1963 documenting
Smith's involvement
in the picketing of
the AMA hang
in his office in
Jackson.

Dr. Robert Smith meant to become a musician. Perhaps a jazz pianist. As

an elementary school student in the early '40s, Smith discovered a pamphlet on famous Negroes and found inspiration in the story of orchestral conductor Dean Dixon, who broke the color barrier by leading the New York Philharmonic in 1941. Smith, the ninth of twelve children on a third-generation family farm, promptly began lobbying his parents for a piano. Mission accomplished, the nine-year-old arranged for lessons and practiced diligently. Then he realized that other children had something he lacked—that elusive “something special” that transforms notes on a page into magic.

It was swing-great Louis Jordan's “Caldonia” that revealed the sorry truth, says Smith sixty years later, humming a bit of the tune as he drives through downtown Jackson, MS. “Caldonia,” he croons in his soft, gravelly falsetto, “what makes your big head so hard?”

Unlike friends who could hear the tune on the radio, then bang it out on the ivories, Smith floundered. “I could play formal music provided I practiced, but otherwise,” he says, “that was it.”

Music's loss was medicine's gain. That same short pamphlet featuring Dixon included a biography of Dr. Charles Drew, the black physician who revolutionized blood banking during World War II. Smith was only thirteen and already in high school when Drew died, having been refused treatment at a southern white hospital after a car accident, but the youngster had already



found his life's calling. When a local white internist who often went bird-hunting with Smith's father asked, "Son, what are you going to do with yourself?" Smith told the old man he planned to study medicine. Soon after, the physician retired, passing along his library of medical textbooks and encyclopedias to Smith, who read every one.

MISSISSIPPI MOVING

In Mississippi, at the time, there was one black doctor for every 20,000 black patients, and only white physicians had full hospital privileges. Most African Americans never saw the inside of a hospital anyway, and the diseases they suffered were those more commonly seen in developing nations—malnutrition, parasites, infections. Nearly five decades after Smith earned his MD at Howard University and returned to Jackson to establish and run a network of neighborhood clinics, Mississippi's black citizens still fight the medical consequences of poverty—heart disease, obesity, diabetes—a struggle compounded by an increasingly fractured and expensive health care system.

Smith has made it his lifelong mission to transform that system, improving access to affordable, integrated care for impoverished African Americans and mentoring aspiring young black doctors. "A physician in a community lives in that community, goes to church there, is part of the PTA, part of the political and economic structure, part of the culture," says Smith. "As the minority world of this country moves forward, all of us will move forward."

Among his strategies for moving Mississippi forward: supervising Brown medical students on rotation at his Jackson clinics and recruiting local high school students into the practice of medicine through Brown's Early Identification Program with Tougaloo, the historically black college where Smith earned his bachelor's degree in chemistry.

"Bob Smith was not only essential, but very central to what we were doing," says Dr. Stanley Aronson, who as founding dean of Brown's medical school helped establish the exchange with Tougaloo in 1972 with Tougaloo science professor Richard

McGinnis. "We sent students not to the college, but to Bob, and they participated in whatever he was involved in clinically. He's changed the views of our students, teaching them a great deal of practical, day-to-day medicine, and a great deal about the humanity and compassion of medicine."

Seth Berkley '78 MD'81, founder of the International AIDS Vaccine Initiative, spent a summer in Jackson. During what felt like the hottest week of the year, Berkley drove there in his 1974 Ghia Mustang, moved in with a local family, and proceeded to follow Smith everywhere. "I was his glue the whole time I was there," says Berkley. "In addition



“He treated me as a real doctor. I spent nights and free time reading like crazy so I wouldn't let him down.”

to the clinical work and in the hospitals, I had an opportunity to see his work in communities.” Berkley had completed just one year of medical training, and yet Smith never condescended.

“He treated me as a real doctor and I rose to the occasion,” says Berkley. “He talked to me about cases, and I spent nights and free time reading like crazy so I wouldn't let him down. It drove me onward.” On the Fourth of July, the pair made house calls; Smith urged his colleague not to eat first. “They'd offer homemade ice cream, pie,” says Berkley, who visited fifteen homes that day. “We were members of the family, the community. It was well beyond a health care issue.”

Now seventy, Smith still extends his reach into the communities he serves, making a point of knowing a patient's family, their circumstances. Tougaloo College president Beverly Wade Hogan met Smith in the '70s, as

her father's hometown physician. “He has a brilliant mind and a caring spirit. I think that's what makes him effective,” says Hogan, who collaborated with Smith in the early '90s to establish a branch of his Central Mississippi Health Services, Inc. clinic in the Tougaloo College Health and Wellness Center, where students and community members can get medical and dental check-ups, physical therapy, and an array of wellness services. “He understands the social dynamics that may impact a person's well being, and he takes that into consideration.”

CIVIL WRONGS

Smith's connection to Tougaloo College was forged during his undergraduate studies there in the mid-'50s. The college then offered the only thorough pre-medical training program in Mississippi for black students, and due to its financial independence from the state, became a haven for the nascent civil rights movement. “It was a small, supportive, multi-racial, multi-ethnic faculty, whose mission was to make you think and open up the world to you,” recalls Smith,

who participated in Professor Ernst Borinski's Sociology Science Forums and Sunday afternoon meetings of the Intercollegiate Fellowship Council, which brought together Tougaloo students and their white peers from nearby Millsaps College. “We had the freedom to interact and think and the opportunity to bring in people of all persuasions—liberal, conservative, whatever—for presentations.”

But it was still Mississippi in the wake of *Brown v. Board of Education*, and a backlash was gaining steam with the formation of the taxpayer-funded State Sovereignty Commission, created to combat the civil rights movement. “People like me grew up always believing in the ideals of America and its fullest rights and Constitution,” says Smith. “People like me who grew up in Mississippi and who had been denied those rights never gave up hope.” In August 1955, fifteen-year-

old Emmett Till disappeared on a family visit to a Delta town about 120 miles north of Tougaloo College. Smith was eighteen. A few weeks later, while visiting in Chicago, he attended the Till funeral. By 1962, Smith had earned his MD and completed a residency at Chicago's Cook County Hospital. He returned to Jackson, volunteered several days a week at the Tougaloo College Infirmary, and attended meetings organized by NAACP field secretary Medgar Evers.

In her autobiography *Coming of Age in Mississippi*, Anne Moody describes the May 28, 1963, sit-in at the Jackson Woolworth's—organized by Tougaloo students and faculty. For three hours the activists were verbally assaulted by a mob, burned with cigarettes, and kicked unconscious. “The moment [Professor John Salter] sat down, he was hit on the jaw by what appeared to be brass knuckles,” Moody writes. “Blood gushed from his face, and someone threw salt into the open wound.” Their politics made the activists unpopular patients, but Smith treated their injuries (both blacks and



Smith checks the blood pressure of James Walton, 64.

black, the physicians, nurses, and psychologists, were harassed, threatened, beaten, and jailed by the Mississippi State Police and other authorities,” recalls Dr. Jack Geiger, a founding member of the Medical Committee for Human Rights and field coordinator of its 1964 Mississippi program to protect and pro-

the physician both with early planning insights and the extended commitment required to garner public funding for the project. And then they started seeing patients. “We were rapidly overwhelmed by this huge tide of unmet need in the population we were serving,” says Geiger, now the

“Whatever trumped-up charges they wanted to bring, that was the flavor of the day.”

whites), a decision that made him a target of the local police. One morning not long after the sit-in, Smith saw flashing lights in his rearview mirror as he rounded a bend in the road just beyond the college gates. He spent the rest of the day behind bars. “Whatever trumped-up charges they wanted to bring,” he says, “that was the flavor of the day.”

Jail didn't temper Smith's dedication to full rights and liberties. A month later, he was in Atlantic City, NJ, to picket the American Medical Association for its part in tolerating Southern segregation by denying black physicians full hospital rights by requiring that hospital appointments be restricted to local (exclusively white) members of county medical societies.

The next year, during the voter registration drives of Freedom Summer, Smith again found a role treating the hundreds of activists who descended on Jackson. “Over and over again, civil rights workers, both white and

vide medical care for civil rights workers. “Bob Smith was the key licensed Mississippi physician who had standing to ... demand the right to examine the civil rights workers and the visiting physicians when they were jailed. He took enormous risks and showed enormous courage in dealing with the authorities and representing the health care rights of the civil rights workers.”

IF YOU BUILD IT...

That fall, Geiger and Smith met again at a weekend conference to follow up on the summer's gains. It was there that the American Neighborhood Health Care Center system was born. Basing their plan on a comprehensive clinic Geiger had visited during a medical school trip to South Africa, the team launched a clinic in the impoverished, all-black Delta town of Mound Bayou. “Bob Smith's was an instrumental voice in that first effort,” says Geiger, who credits

Logan Professor Emeritus of Community Medicine at the City University of New York Medical School. “Bob and another black physician would drive”—or fly a cropduster, a skill Smith had to learn quickly—“from Jackson two days a week to help with clinical care in Mound Bayou.”

Emma Simmons MD'91 MPH'04 grew up in Laurel, MS, 200 miles southeast of that Delta clinic and nearly two decades after it opened, but her experience of medical care wasn't much better than the circumstances that had driven Smith to Mound Bayou throughout the late '60s. Despite check-ups and sick visits during her childhood, the first time a doctor actually made eye contact with her, took a thorough medical history, or even bothered to complete a physical exam instead of standing across the room was in 1982, when she enrolled in an academic enrichment program at Tougaloo for high school students considering science profes-

sions. Smith provided check-ups for all of the entering students.

“Dr. Smith was the first African-American doctor I’d ever met and the first doctor who treated me as a human being,” says Simmons, now an assistant professor of family medi-

school and crafted recommendation letters to support their applications. Later, he and Smith established a clinical rotation program for undergraduates to test their interest, and as long as grants were available, he applied for federal funds to support their work.

“Dr. Smith was the first doctor who treated me as a human being.”

cine at Brown, who studies disparities in the health care of minorities. “He made a huge impact on my thought process. Before knowing him, I’d wanted to go into medicine as a way of getting out of poverty for myself. He helped me see that medicine could not only help me, but also the patients that I was seeing to improve *their* ability to escape the harmful health effects of poverty.”

Dr. Alicia Monroe, associate dean for minority medical affairs and Brown’s Early Identification Program coordinator, agrees that Smith makes the most of “the physician’s opportunity to help those who haven’t had all the advantages to make choices that are aligned with brighter futures.”

That summer, and again during the summer before she started medical school, Simmons shadowed Smith at his clinic. He taught her how to examine a specimen under a microscope, introduced her to the business challenges of offering care to a population short on cash. “He always imparted the same lesson, that the patient is extremely important,” she says. “He would sit with his elderly patients, he never rushed them, he knew all about their families, their social lives. He was phenomenal at picking out what was the real problem. His patients loved and trusted him, never wanted to see anyone besides him.”

QUINTESSENTIAL DOC

But a physician can see forty patients a day—as Smith did throughout the ’60s, ’70s, and ’80s—for only so long, so Smith has dedicated his efforts to building programs that cultivate the interest of aspiring medical students. When Richard McGinnis arrived at Tougaloo in 1969, he established a pre-medical committee to make sure students had completed the requirements for medical

“I still see today kids coming in who’ve been told they should be physicians, but they don’t have the foggiest idea what they’re getting into,” says McGinnis, now dean of Tougaloo’s Division of Natural Sciences and the college’s coordinator for the Early Identification Program. “The experience [of the rotation] really pins it down.”

Rosie Walker-McNair MD’85 completed one of those rotations, which included stints in the front office, working with patients, and running tests in the lab. The experience transformed her interest in science into a desire for an MD. “One day I’d done a urine analysis, and I went to the doctor on duty and told him the diagnosis.” The supervisor explained that lab techs only got to convey results, not make diagnoses. “I said, ‘Well, that’s not enough for me,’” recalls McNair, now an internist practicing in Jackson whose husband is a pulmonologist at

Central Mississippi Health Services. “That was my turning point.”

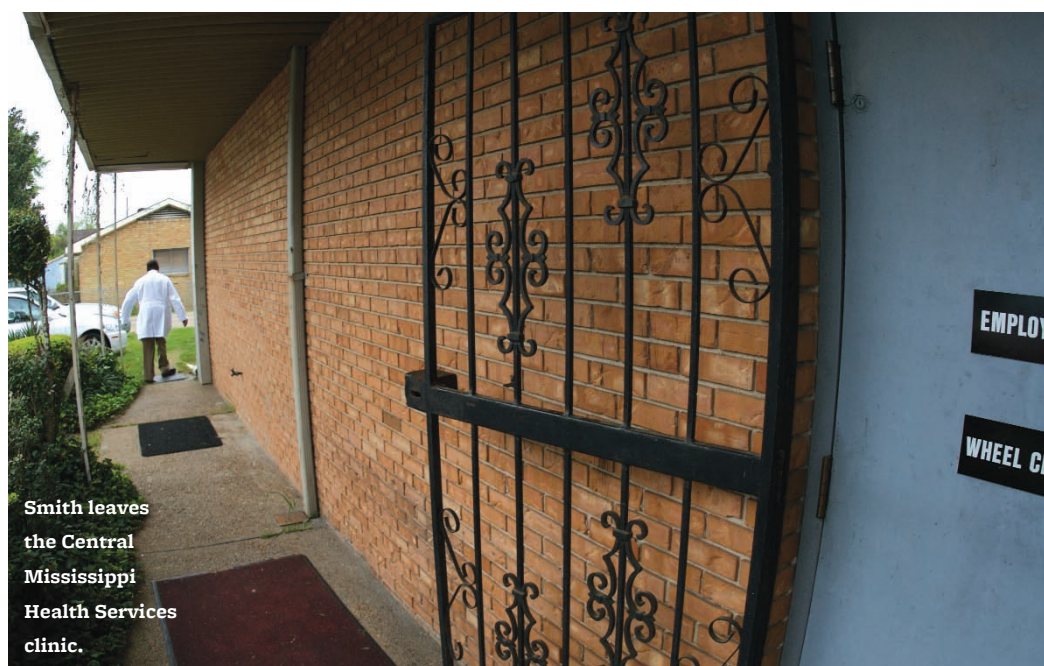
Last fall, fourth-year student Sheree Carney did a primary care elective under Smith’s tutelage. “He had a sensitivity, knowing people’s backgrounds and whether they could afford the medications he wanted to prescribe,” says Carney, who calls him the “quintessential doctor.” This summer, Carney begins her family medicine residency at the University of Mississippi Medical Center in Jackson—one of the hospitals that blocked black patients, black medical students and residents, and black doctors when Smith was beginning his career.

In the early ’60s, when Cook County Hospital offered Smith an obstetrics appointment, it was tempting. “I always wanted to come back [to Mississippi],” he explains. “But you have to put it in perspective. No black doctor could have privileges in the hospitals, and some hospitals didn’t even allow black patients. I wondered whether I could practice the medicine I’d been trained to practice.”

Almost a half-century later, says Smith, he made the right decision: “My joy comes from having been here during this period of time.”



Ithaca, NY-based freelance writer Sharon Tregaskis reports on health care, the environment, and higher education.



Smith leaves the Central Mississippi Health Services clinic.

In the 1960s, actor
Richard Chamberlain
played TV's heartthrob
intern Dr. Kildare.
In real life, Chamberlain
is gay but hid his
identity until 2003,
when he was 68.



THE DOCTOR IS OUT

Gay and lesbian medical students struggle for equality,
for themselves and their patients.

It's not the best of times, but it's not the worst of times for the gay, lesbian, and transgender community. On one hand, these are days of unprecedented tolerance and acceptance. Providence flourishes under the watch of a very "out" mayor, neighbors in Massachusetts are free to enter into same-sex marriages, and expressions of gay culture are found throughout mainstream media.

On the other hand, the U.S. still enforces a ban on gays in the military, states around the country are scrambling to vote in unchallengeable amendments against gay marriage, and it's still legal in most states to discriminate against people because they are gay. Long-held yet subtle biases against the gay community exist even within the world of medicine. Gay doctors fear being honest about their sexuality will hamper their professional progress, while gay patients are still marginalized, subject to the same health disparities that affect the poor and racial minorities in America.

At Brown, the quest for equal rights for people who are gay, lesbian, transgender, or intersex is led by a group of medical students who are setting out to change how things work

“I was the first gay person that a lot of med students knew personally.”

not only for the good of their own careers, but for the care of all LGBT patients.

BORN TO LEAD

When Melissa Donovan and John Kelleher, both members of the MD Class of 2007, were premed post-baccalaureate students at Columbia, they joked that when they got accepted to Brown’s medical school, they’d take over the lesbian-gay-bisexual-transgender (LGBT) medical student organization. Turned out it wasn’t that hard to do. As third-year students moved into clinical training, the group was left without leadership. Donovan and Kelleher eagerly stepped to the plate.

“The first thing we did is change the name,” Donovan says, and what was previously “a bowl of alphabet soup” became Queer Med, invoking the re-appropriated term that while once derisive, now conveys a sense of pride and inclusiveness.

The next task was to develop a mission statement, one that would be fulfilled through student-centered activities. They defined a three-part mission: to provide support for LGBT students, to provide programming for all medical students to improve cultural competence, and to reach out to other LGBT organizations on campus.

What they found once they started organizing events was that in many ways, just being visible as gay members of the medical community was important. Kelleher, who was more than a few years out of college before he started medical school, says that being older was an asset.

“I was the first gay person that a lot of med students knew personally. It was an education for them—we could show them that we don’t have two heads,” he says.

Queer Med began sponsoring events, ranging from the social—marking “Happy Coming-Out Day”—to a well-attended lec-

ture series on gay issues in health care that featured local family physicians, representatives from AIDS Project Rhode Island, and two transgender health activists.

But Donovan and Kelleher found it difficult to get critical mass at Queer Med events. “This is a small medical school, plus everyone is so busy with not only school work, but their own community interests. It’s hard to get people involved,” Donovan says.

What’s more, Donovan and Kelleher believe that many medical students remain closeted, and one reason is fear of how being out will affect their careers. Some students don’t want membership in an organization called “Queer Med” on their résumé or CV.

TO BE OUT, OR NOT TO BE

“The medical community in general does not promote being out as a physician, at least in my experience, so a lot of people that we might know were gay were not going to be part of our organization,” says Donovan. “Even when I was completing applications [for residency] people would ask me, ‘Do you really want to put all that stuff on there?’ because a lot of my extracurriculars are based in the gay community.” She left them in.

For gay or transgender medical students, the question of whether or not to be out on their residency applications weighs heavily. Their hesitation is not completely unfounded, says Kelly A. McGarry, an assistant professor of medicine and program director of the general internal medicine residency at Brown who has acted as an ad hoc adviser to Queer Med.

“There are some disciplines in medicine in which one might be ostracized and rejected if they came out.” But, she believes, “If you can’t be yourself in residency or in your career, then that’s not the program you want to go to.”

McGarry explains that such bias does not usually take the form of blatant homo-

KAREN PHILLIPS



Andrea Lach Dean
and Jason Lambrese

phobia, but in more subtle acts in the ranking system, such as not appropriately ranking students based on scholarly success or extracurriculars.

Donovan, who applied to residency programs in surgery, says, “I don’t want to go anywhere where [being gay] is going to be a problem,” adding that people in the Department of Surgery at Brown were honest with her about the reputations of some medical centers. “I want to go to a program that is going to be accepting of who I am as a woman, let alone a gay woman, and that takes me out of the running for some programs. It’s real.”

Both Kelleher, whose résumé “is about 90 percent involvement with gay advocacy groups,” and Donovan matched with their top residency choices, in psychiatry and surgery, respectively.

CHOIR PRACTICE

By the time Donovan and Kelleher moved into their clinical training, it was time to hand over Queer Med’s reigns to campus-based medical students. Though proud of what they had accomplished during their tenure, they’d grown frustrated because it seemed they were only reaching an already interested and engaged group of students—preaching to the choir.

“If it’s not valued in a more formal way, some people who could benefit from just hearing it fall by the wayside,” says Donovan. Knowledge of health issues that are of specific concern in the LGBT community are lessons for all medical students, as they can have an impact on the care of future patients.

Donovan and Kelleher recount numerous instances in the course of their preclinical training where they felt there were missed opportunities for teaching medical students how to serve the special needs of the LGBT population. Much of the information they received centered on HIV preven-

tion and treatment, but overlooked other health issues that research has shown are more prevalent among gays and lesbians, such as other sexually transmitted diseases, substance use, mental health issues, and certain types of cancer.

Medical interviewing, for instance, had very little coverage of taking a thorough sexual history.

“There was one article that was a very general overview of cultural competence and it was one of six readings in a packet. If you got to it you did, if you didn’t, well...,” recalls Donovan.

“What shocked me during the end of my third year was finding out that some of my classmates were not asking certain questions during a sexual history. One question I feel is vital to ask in a non-judgmental manner is: ‘Do you have sex with men, women, or both?’” Kelleher says.

He reports that classmates have told him, “If the person says they’re married, then I’m not going to ask that” or “It’s the patient’s responsibility to tell me,” not realizing that most gay patients, particularly those who do not self-identify as “gay” but engage in same-sex intercourse, don’t come out to their doctors. “I feel the question is necessary,” Kelleher says, “based on a number of married men I met at a gay men’s vaccination clinic, whose wives were unaware of their sexual activity with men.”

Donovan and Kelleher have also heard inappropriate language used by their peers. “I got the sense that it wasn’t because these people were homophobic, it was because they just didn’t have any language on the subject,” Kelleher says.

Current Queer Med co-leaders, Andrea Lach Dean and Jason Lambrese, both MD’10, say that LGBT issues have been covered in Doctoring, the combination medical interviewing and communication course

that was introduced in the fall of 2005 and is required for first- and second-year students. The increased coverage suggests that the curricular reforms that have taken place over the past two years have incorporated more comprehensive discussion of LGBT health. Dean says, for example, that the instructor who taught sexual history taking was careful to point out that sexual identity and sexual behavior do not always align. Kelly McGarry says that she contributed materials to a recent half-day section for second-year Doctoring students on communicating with lesbian and gay patients.

Though Dean appreciates the content she’s been exposed to so far and for the most part feels it has been well done, she says, “There are times when I feel extremely uncomfortable with my classmates’ knowledge of LGBT anything...so it’s not happening quickly enough. There needs to be pressure to incorporate it further.”

All four students have felt compelled to speak up in their classes, sometimes to remind students about gender-neutral language or to address issues that are of particular concern in the LGBT community. It’s a role they both relish and resent.

Donovan says, “We feel like we’re these little flag wavers, you know? I’m the ‘token dyke on campus’ and I don’t necessarily speak for my whole community. I’m not the spokesperson for gay America.”

Perhaps because of their visible role in Queer Med, the organization’s leadership sometimes feels that even the faculty look to them to fill in gaps in understanding of gay health issues. Dean recalls a discussion during one of her Doctoring classes where a student was expressing an opinion based on sexual stereotypes, and she found the professor looking at her, “as if to say, ‘You should really say something here.’ I just felt like, wait, why do I have to say something?”

“We feel like we’re these little flag wavers, you know? I’m the ‘token dyke on campus’ and I don’t necessarily speak for my whole community. I’M NOT THE SPOKESPERSON FOR GAY AMERICA.”

Dean and Lambrese hope to make their case by designing an elective course on LGBT health issues. Lambrese, who will serve on the Doctoring committee this summer, says they are developing lectures for the elective that would prepare future physicians for counseling LGBT patients on sexually transmitted diseases, adolescent issues, particularly depression and suicide, and being an LGBT provider. They’ve approached the medical curriculum administrators with their idea, and have so far received positive feedback and encouragement to continue the planning process.

ASK, TELL

The ultimate goal of Queer Med’s efforts is to better train physicians to care for the LGBT population, a community widely recognized as medically underserved. In fact, the Department of Health and Human Services’ *Healthy People 2010* document identified lesbians and gay men as one of the populations most affected by health disparities.

While much of the medical literature of the past few decades has discussed serving the LGBT community in the context of HIV care and prevention, other health issues have been identified that are particularly acute among LGBT patients. These include higher incidence of substance use and mental illness, namely depression and eating disorders, a need for screening and counseling about other sexually transmitted diseases, and cancer screening. A number of studies have found the rate of attempted suicide to be three to seven times higher in gay and lesbian youth.

McGarry says one of the reasons LGBT patients are underserved is because they do not disclose their sexuality to their health care provider. A national survey in 2002 found 45 percent of lesbians polled were not “out” to their provider, and an earlier study

found the same of 44 percent of gay men. In 2004, the Rhode Island Foundation and Equity Action conducted the first comprehensive survey of the state’s LGBT population. Eighty-four percent of respondents reported having regular medical care, but only 48 percent reported being “out” to their providers. Other studies suggest that the most significant reason patients give for not disclosing their sexual identity is the fear that they will receive inadequate health care.

Physicians’ reluctance to ask about a patient’s sexual practices compounds the problem. “Providers don’t ask, and they feel it is the patient’s obligation to specify,” McGarry says. “I think that is completely wrong. When you know that it is a given and still accepted that people can express negative feelings toward LGBT people, I think it’s the provider’s obligation to ask.”

In other words, because intolerance and discrimination are still so prevalent, making it difficult for patients to disclose their sexuality to anyone, let alone their doctor, physicians should ensure that they are taking complete sexual histories with a non-judgmental approach that ensures confidentiality. In a November 2006 article in the *Journal of the American Medical Association* called “Optimizing Primary Care for Men Who Have Sex with Men,” Professor of Medicine Kenneth H. Mayer and co-authors Harvey Makadon and Robert Garofalo reinforced the role that primary care clinicians can have in their patients’ lives and how they can promote healthful behavior by “appearing open to discussing sexuality and making this as normative as reviewing smoking, diet, or exercise in the primary care clinical encounter.”

Mayer, who in addition to his responsibilities at Brown is the medical research director at Fenway Community Health, one of the nation’s foremost organizations pro-

The most significant reason patients give for not disclosing their sexual identity is the fear that they will receive inadequate health care.

viding health care and research to the LGBT community, underscores the need for doctors to understand how the multiple identities and roles people have may affect their health. “Cultural competence entails understanding the social expression of illness and health-seeking behaviors, as well the epidemiology and clinical manifestations of specific diseases. For example, in providing care to African-American patients, providers need to understand how sickle cell disease may present, but may also need to understand the residual distrust of government-related research, given the legacy of the Tuskegee experiments. In caring for lesbian, gay, bisexual, and transgendered patients, knowing that some gay men are particularly at risk for HIV is not sufficient. Medical providers need to understand the evolution of sexual expression over the life continuum, so that women who identify as lesbians will usually need routine pap smears, and many patients will be uncomfortable disclosing their homosexual behaviors, unless they perceive their clinicians as supportive and nonjudgmental.”

To help physicians adapt to a gender-neutral communication style and be more aware of LGBT health issues, McGarry has been developing a pamphlet for primary care providers and subspecialists. She’s also contributed a book chapter called “Taking a Comprehensive History and Providing Relevant Risk-Reduction Counseling” to a forthcoming book from the American College of Physicians on caring for LGBT patients that is co-edited by Mayer and Makadon. John Kelleher assisted in the preparation of both pieces, tackling what McGarry calls “the most difficult part”—the psychosocial perspective.

While she hopes all primary care physicians will use these materials, McGarry feels that “in order to provide appropriate care to

LGBT patients, [physicians] don’t need to know everything about LGBT issues, they can ask and they can learn from their patients.”

BRAVE NEW WORLD


One of the other goals on Queer Med’s agenda is to seek out more mentors and role models among gay, lesbian, or transgender clinicians.

Reflecting on whether or not he’ll be comfortable being “out” as a physician in practice, Lambrese says that he never worried about it before he started medical school, but that’s changed slightly. “The medical field is very unique—I have a vision of it being very old-fashioned, old men in their white coats—and I think that’s changing, but I think there’s some truth to it.”

He and Dean agree that they’d like to have more LGBT faculty engaged with the group, but they’ve had trouble making connections and establishing formal relationships.

McGarry says that though LGBT faculty have their own inner struggles about how “out” they want to be as it can threaten their status, she hopes that “those who can will be supportive, and show students that a career in medicine as gay or openly gay is one in which you can thrive.”

In many ways, these students are in uncharted waters, with no primer available on how to make a student group like this work. They’ve taken on an additional task as advocates for the LGBT patient population, educating their peers on these issues while simultaneously providing support. It’s no wonder they sometimes struggle when it comes to figuring it all out.

Their difficult position is not lost on established physicians like McGarry, who’ve been dealing with these issues their whole lives. “I stand in complete admiration of students who are willing to start groups like this, because there are challenges and risks.” 

Not for the Faint of Heart

Respecting patient autonomy.

BY THOMAS BLEDSOE MD'88

One of my patients was recently admitted to the hospital for a community-acquired pneumonia. In the course of taking a history, I asked her about mechanical ventilation in case of worsening respiratory distress or, God forbid, a cardiac arrest. She quickly replied, “Oh no, no machines for me. When it is my time, just let me go!” I was a little surprised, as she was in quite good health. I suggested that if she became so sick, modern medicine might be able to save her with a full recovery afterwards, though perhaps after a period of intensive care. She then quickly said, “Oh, well, of course I would want you to give it a try!”

Shortly afterwards, our ethics committee was consulted about another patient in the hospital. This second patient was recovering from an emergency laparotomy to relieve a bowel obstruction from metastatic colon cancer. The operation was successful but was clearly palliative. The patient was aware of her prognosis and had told the team that she wished to be “DNR” (i.e., Do Not Resuscitate in the event of a cardiopulmonary arrest), though this status was suspended by hospital policy during her surgery. While recovering and visiting with her daughter in her hospital room, she apparently aspirated some of her sandwich, began to gag, and went into respiratory distress. When the medical code team arrived, they were unsure whether her “DNR” status covered aspiration of a bologna sandwich, and wondered how to proceed.

Ideally, all medical decisions are made in a way that is respectful of individual patients (or sometimes family units or larger social

groups) and their rights to self-determination. Patient autonomy is respected when patients have a clear understanding of their underlying values and of the medical options. Some of these options will accord with their health-related values and others will not. In addition to having underlying values, patients require information. Valid informed decision making occurs when a patient is informed of the proposed treatment and its risks and benefits, the risks and benefits of alternative approaches, and the risks and benefits of inaction. (It also requires decision-making *capacity* and voluntariness.) The first patient clearly thought that being on a ventilator at all meant that one would be “stuck” on a ventilator indefinitely, and did not wish to risk that fate. She even appeared willing to accept the possibility of death from a treatable illness in order to avoid that fate.

Asking an *intervention*-related question (about ventilation and resuscitation) put my patient at risk for an early death from an eminently reversible condition. A simple approach advocating “respecting her autonomy” might have led to her death months or years before her time. We have learned to attempt a “preventive ethics review” of our

ethics consults (essentially an ethics M&M discussion) after the dust has settled. In this case, the mistake was to ask about an intervention instead of asking about values. Goals guide interventions, and may be positive (what do you want?) or negative (what do you want to avoid?). A question about goals might have been more successful at enabling us to both understand and honor her wishes. “Mrs. M, what

Asking an intervention-related question **put my patient at risk** for an early death from an eminently **reversible condition**.

do you value in your life and health?” (“If I have a chance, I would want to give it a try, but I would not wish to be kept alive indefinitely if my chances were slim for meaningful recovery. If you tried it and I didn’t wake up, could you stop?”) Goals guide interventions, and all

EXAMROOM 1

patients who have decision-making capacity have both positive and negative goals that a skillful clinician will explore and then weave into the fabric of the medical plan she develops and implements. Understanding both this patient's wishes to treat what is treatable, even intensively, but not prolong her life in a severely dependent state with technology enabled me to develop a treatment plan for her hospitalization that was in accord with her values.

The second case was a bit more problematic. A durable power of attorney for health care is an individual legally designated (usually in advance, by the patient) to be the surrogate decision maker for the patient in the event of a loss of decision-making capacity. A Living Will or an Advance Directive is a document outlining the patient's wishes in situations either specifically or generally defined. While some choose to give the surrogate decision-maker carte blanche to

from a life-threatening pulmonary embolism or other complication of her incurable malignancy or she might have aspirated her sandwich. When she decided to be DNR, did she wish to be DNR no matter the cause? (Such a patient is truly ready for whatever comes next, whether it be heaven or eternal non-existence or something in between.) Or did she merely wish to avoid a prolonged death in an ICU delirium and gut-wrenching decisions by her family about withdrawing life-support? Once again, asking about an intervention (ACLS-guided resuscitation) instead of asking about her goals (a quick and painless death if available, or more quality time if possible) led to the uncertainty.

While the literature is replete with data that surrogate decision-makers often make decisions at odds with patients' wishes when confronted with hypothetical medical situations, there is also data that many patients prefer decisions by surrogates over their own previously

expressed wishes when they feel comfortable that the surrogate will make decisions based on substituted judgment or best interests. As noted, valid informed decision making requires information. Decisions about future medical situations will necessarily be lacking information that becomes available after the patient loses decision-making capacity. In such cases, the decision strategy that best honors the patient's rights to self-determination may well be a decision by a surrogate

Alternatively, a **“best interest”** standard is applied, though this approach is fraught with **risks of paternalism**, especially if one course of action leads to the patient's death by withdrawing life support. Such a decision requires the physician to state that **the patient is better off dead**.

make decisions as he or she sees fit, many legal power of attorney documents prohibit the surrogate from making decisions contrary to the patient's known wishes. This patient had designated her daughter as surrogate and, as noted, was DNR.

During our ethics consults, we usually work with family members or other surrogates to help them make decisions using the best possible evidence for the patient's wishes. Sometimes, there is an Advance Directive that straightforwardly and reliably addresses the clinical situation at hand. If an advance directive is not available, we try to assist the surrogate in making a decision by “substituted judgment,” i.e., what would the patient want? On occasion, there is still no reliable information available and the medical team is left to make decisions based on a “reasonable person” standard: What would a reasonable person wish in such a situation? Alternatively, a “best interest” standard is applied (which course of action would be in the patient's best interest?), though this approach is fraught with risks of paternalism, especially if one course of action leads to the patient's death by withdrawing life support. Such a decision requires the physician to state that the patient is *better off dead*. Sometimes it is true, but the decision gives one reason to pause and reflect.

At the moment of her distress, this patient may have been suffering

from a life-threatening pulmonary embolism or other complication of her incurable malignancy or she might have aspirated her sandwich. When she decided to be DNR, did she wish to be DNR no matter the cause? (Such a patient is truly ready for whatever comes next, whether it be heaven or eternal non-existence or something in between.) Or did she merely wish to avoid a prolonged death in an ICU delirium and gut-wrenching decisions by her family about withdrawing life-support? Once again, asking about an intervention (ACLS-guided resuscitation) instead of asking about her goals (a quick and painless death if available, or more quality time if possible) led to the uncertainty.

While the literature is replete with data that surrogate decision-makers often make decisions at odds with patients' wishes when confronted with hypothetical medical situations, there is also data that many patients prefer decisions by surrogates over their own previously expressed wishes when they feel comfortable that the surrogate will make decisions based on substituted judgment or best interests. As noted, valid informed decision making requires information. Decisions about future medical situations will necessarily be lacking information that becomes available after the patient loses decision-making capacity. In such cases, the decision strategy that best honors the patient's rights to self-determination may well be a decision by a surrogate using substituted judgment that incorporates values, even when such a decision is at odds with an advance directive that speaks only to interventions. In this case, a hard decision by her daughter and the code team to override the “DNR” status and attempt resuscitation may have been the course of action that best honored her values.

We are not in the habit of exploring health-related values, at least not explicitly. Sometimes fears, rational and irrational, interfere with considerations about treatment options and lead either to forgoing useful interventions or continuing burdensome treatments that have little prospect of benefit. Our conversations about future medical care with patients at risk of losing decision-making capacity are best grounded in conversations about values, ideally in the company of a trusted family member or friend whose advice can help to guide treatment decisions in the future, should it become necessary.

Thomas Bledsoe teaches medical ethics at The Warren Alpert Medical School, where students are taught “First be not silent” (Primum non tacere) in the face of ethical conflict, and are guided through the exercise of deliberative bioethics in small group seminars throughout the clinical clerkships. He also serves on the Rhode Island Hospital Ethics Committee and on the board of the Ocean State Ethics Network.

Back to Basics

News from the Campaign trail.

BY KRIS CAMBRA

Two recent gifts to the Division of Biology and Medicine are helping basic science researchers.

A significant gift from the Thomas H. Maren Foundation has established a research fund in the Department of Molecular Pharmacology, Physiology and Biotechnology (MPPB) to support talented junior investigators in the early stages of their research program development. Funds from

the endowment can also be used by MPPB investigators to pursue pilot studies for new research collaborations. Such support is intended to encourage innovative approaches that could lead to breakthrough discoveries and new therapies for a range of human diseases. Recipients will be selected through a competitive application process, with the first award to be made this fall.

The fund was established in recognition of the distinguished career of Dr. Thomas H. Maren and his commitment as a researcher

and teacher to advancing new knowledge and scholarship in pharmacology and related disciplines. Maren, the former chair of Pharmacology and Therapeutics at the University of Florida, gained international recognition for his pioneering investigation of the enzyme carbonic anhydrase and its role in fluid production and flow in the eyes, brain, spinal cord, and lymph system.

The second gift will support one of the priority areas outlined in the Plan for Academic Enrichment. The Walter S. Mander Foundation, as directed by Charles B. and Sarah L. Wolf, both members of the Class of 1972, has given \$150,000 for graduate fellowships. The Walter S. Mander Fellows will be graduate students in the first year and a half of their graduate programs who are doing research in the area of cancer

Overall,
Boldly Brown:
Campaign for
Academic Enrichment
is projected to reach
the \$1 billion mark
by the end of the
fiscal year, in
June.

biology. The funds will offset the cost of providing tuition and stipends for these budding cancer researchers.

Dr. Nancy Thompson, associate dean for graduate and postdoctoral studies, welcomes the additional funding. "Each year we attract a large number of highly qualified applicants who are committed to conducting their thesis research in cancer biology. This gift will facilitate the training of basic scientists who possess the research skills, knowledge of disease mechanisms, and access to cutting-edge instrumentation that will enable them to make the key discoveries needed to conquer this disease."



DONALD TETTO

Why buy the cow if the milk is free?

True, you'll keep receiving **Brown Medicine** whether or not you choose to make a donation. That's the "free" part. But if you like the magazine and want to let us know, it behooves you to take a moment to return the enclosed envelope with your show of support.

Your gift will help us continue to bring you news about the biomedical sciences at Brown, insightful commentary on medical issues, and in-depth looks at the people and programs you care about — three times a year!

Isn't that worth paying for?

**Show your support for
Brown Medicine today!**



Because it's so good!

Recognition

Emeriti Salute

Where Would We Be Without You?

The Medical School thanks these teachers for a job well done.

Emeritus status was conferred on a distinguished group of individuals this year for their many contributions to the character and quality of medical education, research, and clinical care at Brown and its teaching hospital partners. In the words of Dean Adashi, “We acknowledge a change in their status, but not in their lasting legacy.”

ANTONE A. MEDEIROS, MD

Professor Emeritus of Medicine

A Phi Beta Kappa graduate of Brown’s Class of 1957, Dr. Medeiros earned his medical degree from Georgetown University School of Medicine and went on to serve as lieutenant commander in the U.S. Public Health Service from 1963 to 1965, during which time he participated in many local and overseas missions, including the 1963 effort to eradicate smallpox in the jungles of Brazil.

Dr. Medeiros completed his fellowship in infectious disease at Harvard’s Peter Bent Brigham Hospital and served on the faculty of Harvard Medical School for eight years. In 1976 he returned to Brown and its medical school—just four years old at the time. Together with two other “Harvard expatriates,” Adjunct Professor of Medicine Stephen Zinner and Professor Emeritus of Pediatrics Georges Peter, he developed the first- and second-year medical school courses in bacteriology and infectious diseases.

A versatile practitioner, Dr. Medeiros served as the director of the Division of Infectious Diseases and of the Clinical Microbiology Laboratory at The Miriam Hospital for nearly a quarter century. He was internationally recognized for his research on the epidemiology and expression of antibiotic-resistant genes. Broadly published and a frequent speaker both in the United States and abroad, he served for many years on the editorial boards of such journals as *Antimicrobial Agents and Chemotherapy*.

“Dr. Medeiros played a seminal role in the education of infectious diseases fellows at Brown,” says Professor of Medicine Leonard A. Mermel, medical director of epidemiology and infection control at Rhode Island Hospital. “He led by example as a consummate clinician, culling out the salient features in a patient’s history and physical

exams to find that nugget of information that would elucidate the etiology of otherwise enigmatic cases. At the same time, he is an internationally-renowned researcher in resistance mechanisms of gram-negative bacteria.”

Antone Medeiros



Emeriti Salute

A. GERSON GREENBURG, MD

Professor Emeritus of Surgery

A graduate of both the University of Chicago and its School of Medicine, Dr. Greenburg stayed in the Windy City to pursue his internship and residency training in surgery in the University of Chicago hospitals. In the mid-'60s he served as a captain and chief of surgery in the U.S. Air Force before returning to the scholarly life to earn a PhD from Northwestern University in industrial engineering/management science.

After service on the faculty of the University of Illinois School of Medicine and University of California, San Diego, in 1986 Dr. Greenburg was appointed professor of surgery at Brown and surgeon-in-chief at The Miriam Hospital. At Brown his numerous contributions include having served for eighteen years as chair of the Continuing Medical Education Committee and as acting chair of the Department of Surgery for five-and-a-half years. In 2005 The Miriam Hospital recognized his remarkable qualities by bestowing on him the Charles C.J. Carpenter Outstanding Physician of the Year award.

“Dr. Westlake’s personality, integrity, and reputation for excellence in teaching have made him a great asset to the development of academic psychiatry and medicine in Rhode Island.”

Dr. Greenburg has for years maintained an active and internationally recognized research program on blood substitutes and transfusion technology. He is a past president of the International Society for Blood Substitutes and has held leadership roles in numerous other professional societies.

Today Dr. Greenburg works with BioPure, a Cambridge-based corporation that has pioneered the development and manufacture of oxygen therapeutics, a new class of pharmaceuticals that are intravenously administered to deliver oxygen to the body’s tissues.

JAMES P. CROWLEY, MD

Professor Emeritus of Medicine

Dr. Crowley received his AB from Providence College in 1965 and his MD from Georgetown University in 1969. After completing an internship and residency in medicine at Boston City Hospital and Massachusetts General Hospital, he served as a research medical officer in Boston’s naval hospital. He then completed a senior residency in medicine and a clinical fellowship in hematology at the Peter Bent Brigham Hospital in Boston. He came to Brown in 1976 as an assistant professor of medicine.

Focusing on hematology and transfusion medicine, particularly with regard to immunology and oncology, Dr. Crowley has published extensively and is widely known for his expertise in the field.

He has received a number of honors and awards, including the Transfusion Medicine Academic Award from the National Heart, Lung and Blood Institute in 1984. He also served in the U.S. Navy Reserve for twenty-six years, receiving National Defense Service Medals for Vietnam and the Persian Gulf and a Naval Commendation Medal before retiring as a captain in 1995.

In Rhode Island, Dr. Crowley served as the director of clinical hematology and of the Meehan Memorial Research Unit at Rhode Island Hospital from 1990 to 2000, as chief of hematology/oncology at Memorial Hospital of Rhode Island from 2000 to 2006, and as director of The Cancer Center there from 2002 to 2006.

ROBERT J. WESTLAKE, MD

Professor Emeritus of Psychiatry and Human Behavior

After graduating *cum laude* from Allegheny College in 1957, Dr. Westlake went on to earn an MD from the University of Pennsylvania School of Medicine. He completed his internship at the Hospital of the University of Pennsylvania and his residency training in internal medicine at Case Western Reserve University Hospital before serving as a surgeon for the U.S. Public Health Service in the early '60s. He continued his training at the New York State Psychiatric Institute, the Department of Psychiatry at the College of Physicians and Surgeons at Columbia University, and the Institute of the Pennsylvania Hospital in Philadelphia. He came to Brown in 1973 from the faculty of the University of Pennsylvania School of Medicine.



THE WARRENALPERT MEDICAL SCHOOL ARCHIVES

Dr. Westlake's research interests lie in mental health law and geriatric psychiatry, fields in which he is widely recognized as an expert. Dr. Westlake was one of the first Rhode Island psychiatrists to be certified by the American Board of Psychiatry and Neurology for qualification in geriatric psychiatry.

Dr. Westlake helped shape the administration and teaching of the Department of Psychiatry and Human Behavior. He is credited with the design and development of the clerkship in psychiatry, twice served as acting chair of the department, and received an Excellence in Teaching Award in 2002. He also played a key role in the administration of Butler Hospital, serving as the hospital's medical director for four years in the '90s. On a national level, he has been an examiner for the American Board of Psychiatry and Neurology since 1980 and was named a Life Fellow of the American Psychiatric Association in 1999.

Said Martin Keller, chair of the Department of Psychiatry and Human Behavior, "Dr. Westlake's personality, integrity and reputation for excellence in teaching have made him a great asset to the development of academic psychiatry and medicine in Rhode Island. His wise counsel has provided the department a steadying hand at many times through its years and he has served as role model for generations of young psychiatrists."

EUGENE H. HEALEY, MD

Clinical Assistant Professor Emeritus of Medicine

A native Rhode Islander, Dr. Healey completed his medical education at Boston University School of Medicine and his residency training at Boston City Hospital. Starting in 1970 he served for a year as a U.S. Army major with the Military Assistance Command in Vietnam, for which he was awarded a Bronze Star. After serving as staff surgeon at Fort Jackson, in South Carolina, Dr. Healey came home to Pawtucket to join the medical staff of Memorial Hospital of Rhode Island—then known as Pawtucket Memorial—as a vascular and general surgeon. Since 1991, he has served as clinical assistant

“Dr. Healy is a tremendous surgeon who has taught many not only the finer points of surgery but also the art of compassion and caring.”

professor of medicine at Brown, where he taught residents in family practice and medical students and residents in internal medicine, and has given medicine and surgery grand rounds.

In addition to his appointment at Memorial, Dr. Healey has held appointments at St. Joseph's, Notre Dame, and The Miriam hospitals. He is a past president of the Providence Surgical Society and a member of numerous professional societies, including the New England Society for Vascular Surgery.



Donald Giddon

Dr. Healey has often been lauded for his contagious enthusiasm for both teaching and the practice of medicine, and for his devotion to his patients' total care. In the words of Professor of Surgery Joseph Amaral MD'81 HS'89, "Dr. Healy is a tremendous surgeon who has taught many not only the finer points of surgery but also the art of compassion and caring."

DONALD B. GIDDON, DMD, PHD

Clinical Professor Emeritus of Community Health

A Brunonian from the Class of 1952 with a bachelor's degree in psychology, Professor Giddon went on to earn an AM in psychology from Brown, a DMD from the Harvard School of Dental Medicine, and a PhD in psychology from Brandeis University. He completed

his U.S. Public Health Service postdoctoral training in dental medicine at Harvard and Massachusetts General Hospital, and his U.S. Public Health Service fellowship in psychology at Harvard and Brandeis universities. Professor Giddon has held academic appointments at numerous other schools of

dentistry and medicine, including those of dean of the College of Dentistry of New York University, from 1975 to 1978, and of chair of the Department of Preventive and Social Dentistry at the University of Groningen, Netherlands, from 1979 to 1981.

Professor Giddon joined Brown's faculty in 1985 as a lecturer in community health and was appointed clinical professor of community health in 1989. From 1999 to 2006 he was a lecturer for the Biomed course Stress and Disease, and has mentored numerous stu-

Emeriti Salute

dents in independent projects over the course of his tenure. In addition, he was instrumental in establishing the Nathan Giddon Families Endowed Clerkship, an exchange program for Brown medical students and The Technion, Israel's oldest university.

In the words of Vincent Mor, chair of the Department of Community Health, "Donald Giddon served a valuable role in teaching a science-based course for undergraduates linking studies of the physiology of stress to the study of disease prevalence. This is an interdisciplinary area of investigation that is consistent with the mission of the Department of Community Health, which is part of the Medical School but has a crucial connection to the social and biological sciences. Dr. Giddon gave freely of his energy and time to the instruction of Brown undergraduates for many years. We are forever grateful."

SAUL A. MARTIN, MD

Clinical Assistant Professor Emeritus of Psychiatry and Human Behavior

Born and raised in Montreal, Canada, Dr. Martin did his undergraduate work at McGill University before moving on to earn his medical degree from the University of Saskatchewan Medical School in 1958. He returned to Quebec for a year's internship at Montreal General Hospital before completing residency training in psychiatry at Taunton (MA) State Hospital, King's Park (NY) State Hospital, and Hillside Hospital in Glen Oaks, NY. He also completed a fellowship in psychiatry at Montreal's Jewish General Hospital. His first academic appointment was at McGill University, where for ten years he served as lecturer and demonstrator in psychiatry, before joining Brown's medical faculty and the staff of Butler Hospital in 1979.

For more than twenty-five years Dr. Martin has supervised Brown psychiatry residents, treated patients, and performed community work, serving as consultant psychiatrist to the Pawtucket Family Society, the state of Rhode Island's Department of Developmental Disabilities, and developmental disabilities facilities in North Kingstown, Cranston, and Bristol. In recognition of his dedication and service, he was honored with the Community Service Award from L.I.F.E., Inc., in 2000 and the Exemplary Psychiatrist Award from the National Alliance on Mental Illness-Rhode Island in 1999.

ISRAEL YAAR, MD

Associate Professor Emeritus of Clinical Neurosciences (Neurology)

A native of what was then Tiberias, Palestine, but has since become Israel, Dr. Yaar earned his medical degree at the Hebrew University-Hadassah Medical School in Jerusalem, graduating in 1968. Overlapping with military service in the Israeli Defense

Forces, where he rose to the rank of major, Dr. Yaar completed his residency in neurology at the Hadassah Hospital in Jerusalem, staying on there for a fellowship year of basic science studies and work in computerized and clinical electromyography in the Department of Rehabilitative Medicine.

Dr. Yaar came to the U.S. in 1978 as a visiting scientist and clinical fellow at the Neuromuscular Diseases Section of the NIH in

"Dr. Giddon gave freely of his energy and time to the instruction of Brown undergraduates for many years. We are forever grateful."

Bethesda. In 1981 he accepted an appointment at the Veterans Affairs Medical Center here in Providence, beginning a twenty-five year career at the VA tutoring house staff, teaching rounds for interns, residents, and fellows, and serving since 1989 as chief of neurology. He also has served with distinction on Brown's faculty, teaching clinical neurology since 1984. According to Dr. Sharon Rounds, professor of medicine and of pathology and laboratory medicine and former associate dean of medicine for faculty affairs, "Dr. Yaar has been an outstanding clinical neurophysiologist at the VAMC. He applied state-of-the-art technology to diagnose the neuromuscular disorders of veterans."

Active in numerous professional societies and involved with various editorial positions for such publications as the *Journal of Electromyography and Kinesiology*, Dr. Yaar is the author of widely published research. He is the holder of a U.S. patent for computer software for needle-EMG diagnosis, the subject of his current research.

PATRICIA N. WOLD, MD

Clinical Assistant Professor Emerita of Psychiatry and Human Behavior

Dr. Wold earned both her undergraduate and medical degrees from the University of Nebraska. She graduated *cum laude* in 1948 with an AB in zoology and an honors thesis on the heart and attached vessels of the opossum, then received her MD in 1952 as a member of the Alpha Omega Alpha honor society. She did her residency in psychiatry at the E.J. Meyer Memorial Hospital in Buffalo and at the Massachusetts Mental Health Center and the Metropolitan State Hospital, both in Boston.

In 1976 Dr. Wold accepted positions with Brown and Butler Hospital that launched a thirty-year record of service and dedication. In addition to her Brown teaching duties, she also served for four years as an Affinity Group leader, contributed to the development of Brown's competency-based medical curriculum, and published dozens of peer-reviewed research articles. Active in professional groups such as the American Society of Women Psychiatrists, Dr. Wold has been honored as past president of the Rhode Island

District of the American Psychiatric Association and in 1995 as the Rhode Island Medical Society's Woman of the Year.

DONALD G. KAUFMAN, MD

Clinical Assistant Professor Emeritus of Medicine

A 1962 graduate of the University of Rhode Island, Dr. Kaufman earned his MD in 1967 from the George Washington University School of Medicine, with honor society memberships in Kane King and Smith-Reed-Russell. He completed an internship and residency in internal medicine at the Veterans Affairs Hospital in Washington, DC, and stayed in the area for a two-year term of military service at the Pentagon. He then returned to the Ocean State in 1972 for a fellowship in gastroenterology at Rhode Island Hospital.

Dr. Kaufman's Brown career began more than thirty years ago, first as a clinical instructor of medicine in 1974, and since 1982 as clinical assistant professor. He is in private practice in Providence, has served as chief of gastroenterology at Memorial Hospital in Pawtucket, and held additional hospital appointments at Rhode Island Hospital, The Miriam Hospital, and Landmark Medical Center in Woonsocket. An active member of various professional societies, Dr. Kaufman pursues clinical interests in colon cancer screening and hepatitis.

RICHARD H. LONGABAUGH, EDD

Professor Emeritus of Psychiatry and Human Behavior (Research)

Dr. Longabaugh earned an undergraduate degree from Dartmouth (psychology) and a master's (social studies) and doctorate (human

development) from Harvard. He spent his early years in academic medicine at Cornell, the State University of NY-Binghamton, and Harvard before joining Brown's medical school in 1972. A social and clinical psychologist, Dr. Longabaugh became associate director of the Center for Alcohol and Addiction Studies (CAAS) in 1986 in order to develop the Center's research mission. He also served as co-director for the Center's postdoctoral training program in alcohol treatment/intervention research from its inception in 1986 until 2000 and was awarded a Sharon Chauncey Fellowship Award by CAAS for his leadership of the program when he resigned his position.

A recognized leader in alcohol treatment research, Dr. Longabaugh has served regularly on NIAAA advisory committees; notably, he was the first chair for the scientific advisory group (IRG) on alcohol treatment and clinical research. He is a fellow of the American Psychological Association and has published more than 200 research articles and books. In 1999 he received the Dan Anderson Research Award from the Hazelden Foundation for his research contribution to the recovery process.

A. SATTAR MEMON, MD

Clinical Associate Professor Emeritus of Medicine

A native of India, Dr. Memon completed his undergraduate and medical training there, earning his MD from Baroda Medical College. He began his residency in internal medicine in Baroda before traveling to New Brunswick, Canada, for a surgical internship. He completed his residency at St. Joseph Hospital in Chicago and the Catholic Medical Center in Queens, NY. He came to

Rhode Island for a fellowship in immunology and oncology at Memorial Hospital in Pawtucket.

Dr. Memon has operated a clinical practice in internal medicine and oncology for more than twenty years, serving as PI on eight clinical trials, mostly involving hypertension and cancer. He joined Brown's medical faculty in 1996 and received a Life Saver Award as the best public educator in Rhode Island from the American Cancer Society. He served for more than a year as director of MetCare Oncology in Ormond Beach, FL, and is an active member of professional groups like the American Society of Clinical Oncology and the Association of Clinical Research Professionals.

Dr. Memon is also an accomplished writer of fiction, having published magazine articles and short stories and recently completed a novel.



ALUMNI ALBUM

CHECKING IN WITH BROWN BIOMEDICAL ALUMNI

CLASSNOTES

1975

Arthur Horwich '73, the Eugene Higgins Professor of Genetics and Pediatrics at Yale School of Medicine, will receive \$25,000 as part of the Wiley Prize in the Biomedical Sciences for his research on proteins.

Peter LeWitt '72 MMS'75, a leading researcher and president of the Michigan Parkinson Foundation, has been named to the scientific advisory board of Chelsea Therapeutics International, Inc., a biopharmaceutical development company in Charlotte, NC.

1978

Robert Weinberg '74 has been named chief of staff at Geneva General Hospital. He

resides in Geneva, NY, with his wife, Barbara, and their five children.

1979

Ingrid Rodi '76 will see both sons off to college this fall. She writes, "Daniel ... is a sophomore at Brown. He is majoring in history and is a member of Sigma Chi. Paul ... agonized about whether to apply to Brown, but ultimately decided on the film school at NYU-Tisch."

1980

Louis J. Mariorenzi '77, an orthopaedic surgeon, is one of four new trustees at Roger Williams Medical Center. Louis is a diplomate of the American Board of Orthopaedic Surgery.

1981

Seth Berkley '78, president and CEO of the International AIDS Vaccine Initiative (IAVI), announced the creation of his organization's South African program and the opening of a bureau in Johannesburg. The program is intended to expand advocacy efforts and research and development in South Africa to help accelerate the development of an AIDS vaccine.

1982

Piedade Oliveira-Silva writes, "We are well and still living on Florida's sunny west coast. I continue to practice pediatrics in a very busy and thriving practice. My oldest started college at Florida State

University this fall. The girls are great. Would love to hear from classmates and hope to see you in May!" Piedade can be reached at aspo55@aol.com.

1994

Lynne M. Palmisciano '90 is an emergency room attending physician at Hasbro Children's Hospital in Providence.

1995

Margaret D. Dean has been appointed medical director at Western State Hospital in Lakewood, WA.

Renu Mansukhani '91 has joined the staff of the George Washington University Weight Management Program in Washington, DC.

1996

Joseph Chen '92 was profiled by the University of Iowa Carver College of Medicine's Faculty Focus website in February.

Teddy D. Pan '92 HS'00 has opened a general dermatology and dermatopathology practice in Albany. Teddy completed his dermatology residency in 2000 at Rhode Island Hospital, and a fellowship in dermatopathology in 2001 at the Hospital of the University of Pennsylvania.

Colette Whitby writes, "This October marks a special occasion for Robert and me.

TELL US SOMETHING WE DIDN'T KNOW

What's new with you?

Take a moment to contact us at bms.brown.edu/alumni/ (click on "fill us in") or send your updated contact information, including e-mail address, directly to us at Med_Alum@brown.edu.



Renu Mansukhani

COURTESY MANSUKHANI



Atul Butte

MEDICAL MASH-UPS

Genomic experimentation has enabled the modern scientist to think big. Take, for example, the microarray, which examines healthy and diseased cells, yielding thousands of bits of data about the expression patterns of the genes within those cells. It's an international enterprise: results of these investigations fill databases in centers all over the world.

"This is the future," says **Atul Butte** MMS'95 MD'95. "You can come up with so many new questions with just the information that's available." In his lab at Stanford's Division of Medical Informatics, Butte and his team applied concepts in computational biology to create software that organizes the findings from tens of thousands of microarray experiments into a single database according to

actually two diseases. [The diseases] look the same to a doctor's eye, but the micro array tells us different. This happens all the time ... Why can't we shuffle diseases as we do species?"

Butte's team is doing just that, and has already examined the changes in gene expression of nearly 100 diseases, arranging them in a taxonomical tree according to genome sequence.

"I want the next generation of scientists to say, 'Wow, I have this sample from the CDC and another from the NIH: how do I bring them together to come up with new questions?'" Butte

"Why can't we shuffle diseases as we do species?"

says. "The students call it a 'mash-up'—what genomic mash-ups will we come up with? What are the cool scientific questions that we answer?"

—**Jumoke Akinrolabu**

We have worked very hard over this past year to make the dream of Nashoba Valley Surgical a reality. We are still enjoying the country life with our girls, Bessie, Renee, Gidget, Maggie Lou, Mia, and Sarah."

1997

Kim M. Goodwin was recently named a "Top Doc" by *San Diego* magazine.

1998

Shoshana Landow writes, "**Elisa Rhew** '93 MD'98 and her daughter, Mina Rhew Chang, born February 27, 2006, recently visited me and my son, Philip Landow Stein, born August 29, 2006, in New York. Elisa is currently a full-time academic, a rheumatologist attending at Northwestern University

doing clinical research. I will shortly return from maternity leave to my solo practice in dermatology in Brooklyn Heights and my job as consultant dermatologist at YAI/National Institute for People with Disabilities."

1999

Melisa W. Lai '94 is the associate director of the American Association of Poison

THE BROWN MEDICAL ALUMNI ASSOCIATION extends membership to all graduates, faculty, and house staff officers of The Warren Alpert Medical School, and to graduates of Brown University who hold degrees from other medical schools. The BMAA is dedicated to supporting the alumni/ae, students, faculty, and administration of The Warren Alpert Medical School. The BMAA is governed by a Board of Directors.

Meet the leaders of the BMAA.

TANYA J. BECKER MD'98

Barrington, RI

ANDREW M. BONWIT MD'91

Washington, DC

BARRETT W. BREADY '99 MD'03

Providence, RI

NADINE CARTWRIGHT-LOWE '82

MD'85, P'07, P'09

Huntington, CT

COLLEEN CAVANAUGH MD'89

HS'93

Pawtucket, RI

SREEKANTH K. CHAGUTURU '99

MD'04

Boston, MA

MICHAEL W. CROPP '76 MD'79, P'05,

P'08

Amherst, NY

MARLENE CUTITAR '83 MD'86

HS'92 *

Warwick, RI

MANUEL F. DASILVA MD'91

East Greenwich, RI

PATRICIA FUREY MD'90

Bedford, NH

ROHINA GANDHI-HOFFMAN '90

MD'94

Studio City, CA

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New York, NY

ESTHER J. NASH '78 MD'81, P'09

Lafayette Hill, PA

JUDITH A. OWENS '77 MD'80

Portsmouth, RI

MERRILL W. REUTER MMS'86 MD'86

Boca Raton, FL

NEEL T. SHAH '04 MD'08

Attleboro, MA

ANISH A. SHETH '98 MD'01

Hamden, CT

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Providence, RI

EMMA M. SIMMONS MD'91 MPH'04

Cumberland, RI

DAVID A. SNYDER '71 MD'75, P'02, P'04

Boca Raton, FL

LISA A. TAITSMAN '90 MD'94 *

Seattle, WA

ALUMNI ALBUM

Control Centers in Washington, DC. She attended the wedding of **Kathleen Hogan** MD'00 to James Leventis this October and writes, "It was great to see **Felix Lui** '95 MD'99, **Brook Beall** '95 MD'00, and Brook's wife, Stephanie."

2001

Cameo Denise Cozart '97 married Travis Montell Chance at First Baptist Church of Pittsburgh. She is an attending emergency room physician in Maryland. The groom is a

Sameer Parekh lives in New York City with his wife, Karen, and their two sons. **He will start a fellowship** in cardiac electrophysiology **in the fall.**

graduate of the University of North Carolina at Greensboro and works as a financial services manager for Nissan/Infiniti.

2002

Sameer Parekh '96 and Karen Wachtel Parekh, PhD '96 write, "We're thrilled to announce the birth of Teij Jonah. He's happy and healthy and is, thankfully, the apple of the eye of his older brother, Rajen. Karen just completed her PhD in clinical psychology, and Sameer will start a fellowship in cardiac electrophysiology in the fall. We live in Manhattan and would love to hear from old friends at sameer_p_parekh@yahoo.com, kwachtel@hotmail.com."

2003

David A. Hansen has joined the staff at Ferndale Family Medical Center staffing Ferndale, WA.

2004

Eric A. Serrano '99 and Emily Gunning Keiser, MD '98 were married July 29, 2006, in Newport, RI.

INTERESTED IN GETTING MORE INVOLVED?

Feel free to contact the Board at Med_Alum@brown.edu or Director of Alumni Programs Bethany Solomon (401 863-1635 or Bethany_Solomon@brown.edu).

THE KIDS ARE ALL RIGHT

Monica Kleinman '84 MD'87 is medical director for the Transport Program at Children's Hospital Boston and her work can mean life and death for the area's critically injured children.

"The Transport Program is an extension of intensive care at Children's," Kleinman explains. "It is a dedicated group of ... health practitioners that I have worked with to train in advanced critical care procedures. A team is dispatched to retrieve a child and they start intensive care while they're bringing the patient to the hospital."

Kleinman has led these efforts since she was recruited from Hasbro Children's Hospital in 2001. As one of three female intensivists at Hasbro, Kleinman supervised the pediatric ICU, working alongside a team of nurses and doctors to tend to the sickest and youngest patients. Her expertise in pediatric critical care was well documented by veteran *Providence Journal* columnist Mark Patinkin in *Up and Running: The Inspiring True Story of a Boy's Struggle to Survive and Triumph*, which chronicles a local boy's near-fatal run-in with bacterial meningitis. Kleinman was among the physicians who treated the boy.

Away from the ED, Kleinman chairs the training and standards committee of the American Heart Association, where she

"You can always, always stop, reassess, see where you're going, and sort of ... re-aim yourself."

helps shape the organization's guidelines for emergency cardiovascular care. Most recently, Kleinman worked with the AHA to launch its Infant CPR Anytime Personal Learning program, which provides life support training for families to use in the home. "I wear a couple of hats in the AHA, which is great," she



says. This summer, she'll don another, as chair of the AHA's Pediatric Advanced Life Support Program.

Despite—or because of—the intensity of her work, Kleinman keeps a calm outlook. "I took a relatively straightforward path through my training to get to this point in my career. But I think young people, particularly medical students, put such intense pressure on themselves," she says. "It is so important to know that a door closes and another opens. You can always, always stop, reassess, see where you're going, and sort of ... re-aim yourself."

—J.A.

ON THE MOVE?

Please send your change of address card to *Brown Medicine*, The Warren Alpert Medical School of Brown University, Box G-A413, Providence, RI, 02912. Or use the form on the web: bms.brown.edu/alumni/fillusin.

2005

Nina Mirchandani '00 and Ankur H. Desai married on June 10, 2006. Nina is a dermatology resident at St. Luke's Roosevelt Hospital Center in New York, NY.

2006

Robert "Treb" Becher, a surgical intern at Wake Forest University Baptist Medical Center in North Carolina, was featured in an

article in the *News-Record*, a Greensboro, NC, newspaper. The day-in-the-life-of-an-intern synopsis chronicled twelve hours of Becher's residency training, from morning conference to rounding on patients, from observing surgeries to waiting for an available OR to perform one.

Becher, who worked on Wall Street before coming to medical school, said he plans to work in a developing country once he's completed the five-year program. He

NO MINOR FEAT

Lloyd Minor '79 MD'82 made the leap from balance disorder expert to foremost authority in the field after describing, for the first time, a rare and mysterious disorder called superior canal dehiscence (SCD).

The hallmarks of SCD are autophony—a roaring that reverberates in the ear—and dizziness triggered by sudden movement or noise. In the most troubling cases, victims suffer a chronic loss of balance. Minor's research, published in 1998 in the *Journal of Otolaryngology-Head and Neck Surgery*, shed light on a condition that had plagued patients and baffled physicians for decades.

"Before we described the syndrome and its cause, many didn't even think they had an inner-ear problem," Minor says. "They thought it was multiple sclerosis or a psychiatric disorder."

Minor determined that SCD results from tiny holes in the superior semicircular canal, a bony arch inside the inner ear that is partially responsible for maintaining sense of balance. Surgical treatment, also developed by Minor, involves plugging the holes

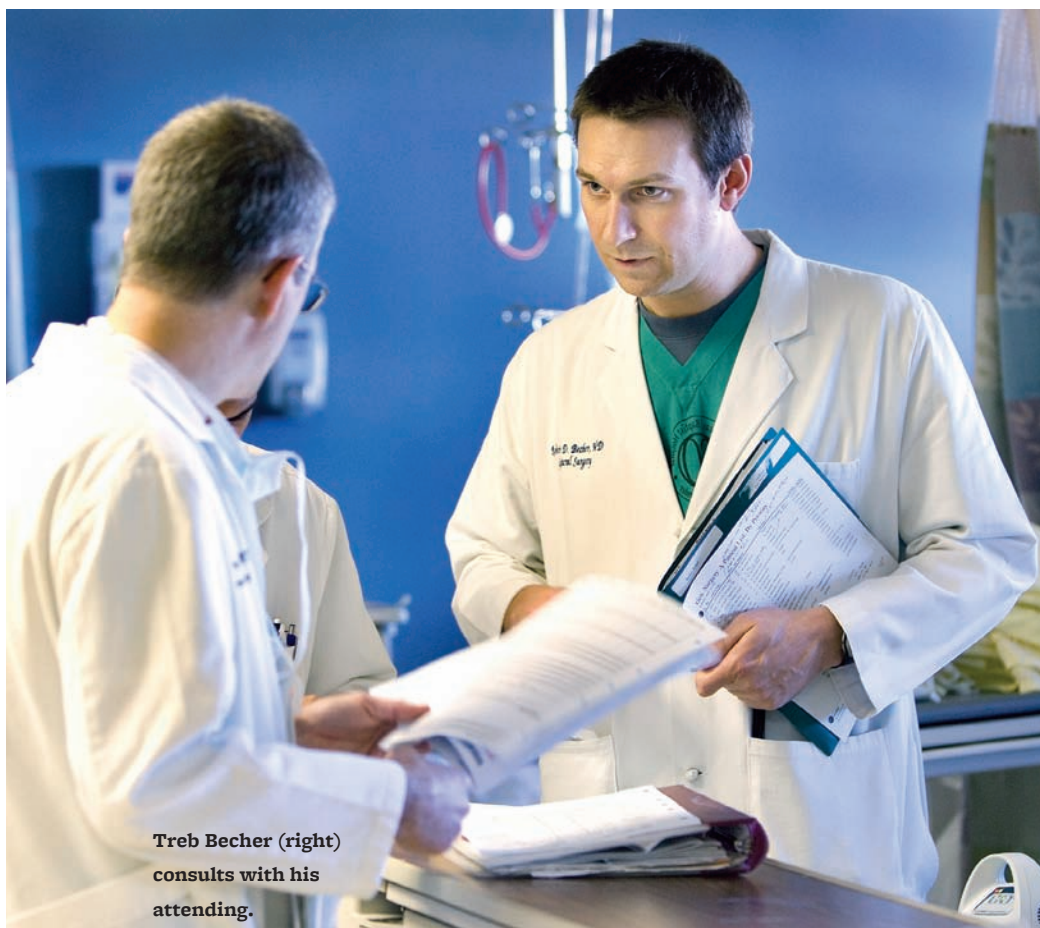
with a mixture of muscle tissue and bone dust. The technique has enabled those afflicted with the disorder to resume normal activities. While identifying SCD marks a career high for Minor, he derives greater satisfaction from the discovery's broader implications.

"We've operated on forty-three patients," he says. "In addition to helping people with dehiscence, it's showing us other ways to study ear infection and we're transferring that knowledge to other ear troubles."

—J.A.



Lloyd Minor



Treb Becher (right)
consults with his
attending.

already has experience working in trauma clinics in Brazil and South Africa.

Rebecca Elizabeth Traub '02 married Jeffrey Cheng '02 on March 11 at the Light-house at Chelsea Piers in Manhattan. Rebecca is an intern in internal medicine at New York-Presbyterian Hospital/Columbia University Medical Center. Jeffrey is an intern in otolaryngology-head and neck surgery at Mount Sinai Medical Center in Manhattan.

PHD

1984

Mark F. Bear P'05 is now the director of the Picower Institute for Learning and Memory at MIT.

1995

Ravi Bellamkonda, a professor in The Wallace H. Coulter Department of Biomedical Engineering at Georgia Tech and Emory University, was named a Georgia Cancer Coalition Distinguished Cancer Scholar for 2007.

COURTESY MINOR, H. SCOTT HOFFMANN

HELPING FAMILIES WHOSE WORLDS were rocked by fires or floods was not enough for Kate Schulze MD'09.

"After college I got what was then my dream job: working for the Red Cross. Despite the many reasons not to, I could not stop dreaming about becoming a physician who works with the underserved. I wanted to attend Brown the moment I read a phrase in the mission statement about graduating physicians who are 'socially responsible.' My career plans don't involve making a lot of money, and I do worry about how

I will pay for my education. I took a leap of faith when I came to medical school because I wanted to follow my dream, and believed that the money would somehow work itself out.

And now, it is."

When you make a gift to the **Brown Medical Annual Fund**, it's students like Kate who benefit most. Forty-five percent of every BMAF dollar is used for medical student scholarships. Students who have the mind for medicine but not the means depend on it.

And remember: every gift to the BMAF counts as a gift to the Campaign for Academic Enrichment. So be bold. Your participation – at any level – will help us reach our goal of \$700,000 by June 30. Return the enclosed envelope with your contribution or give online at www.gifts.brown.edu.

Questions? Contact Bethany Solomon in the Office of Advancement at 401 863-1635 or Bethany_Solomon@brown.edu.



BROWN MEDICAL ANNUAL FUND



Brown Medicine
The Warren Alpert
Medical School
of Brown University
Box G-A413
Providence, RI 02912

Feeling alone?



You don't have to!

There are lots of ways to stay involved with your medical school – including a brand-new program called **Help Our Students Travel**. Volunteers for HOST offer a night or two of lodging to Brown medical students during the residency interview process.

It's a great way to connect with current students while helping them keep their travel expenses down.

Interested in becoming a HOST volunteer?
Visit bms.brown.edu/alumni/HOST.

And watch your mail for the alumni directory questionnaire coming your way this summer! Slated for publication in spring 2008, the alumni directory will be like a GPS to help find fellow alumni. Be sure to return your survey so we know where in the world you are.