

# BROWN MEDICINE

Fall 2007 | Volume 12 | Number 2

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

## CONSCIENTIOUS OBJECTOR

Scott Allen and  
fellow physician  
activists believe  
in the right not  
to remain  
silent.

**PLUS:**  
APOLOGY  
ACCEPTED?  
NOT THE SAME  
OLD STORY





# LETTER FROM THE DEAN



## Old and New

**This issue of *Brown Medicine*** highlights areas of excellence for which Alpert Medical School has long been renowned: the study of aging from the molecular to the clinical level, and patient advocacy, having produced some of the world's leaders in health care activism.

What is new, however, is that medical students now have an opportunity to translate personal interests in areas from aging to health advocacy, from women's

reproductive health to informatics, into scholarship. Implemented this past academic year, the Scholarly Concentrations Program offers medical students an unprecedented opportunity to define their educational experience by pursuing a course of study beyond the scope of the core curriculum.

This summer, Alpert medical students undertaking a scholarly concentration embarked on the first leg of their academic journeys by beginning field experiences that will inform their research. One student went to Cambodia to study cultural traditions; two others traveled to Shanghai to document social practices that contribute to the spread of HIV. As part of their scholarly concentration, students pursue additional coursework, shadow professors who act as mentors and advisors, and finally, produce a scholarly work that contributes to the field, be it a published journal article, an academic symposium, even a biomedical device.

Though the program is voluntary, almost half of the Class of 2010 opted to undertake study in the ten (now eleven) concentrations offered. Faculty with years of expertise in these areas, such as geriatrician Richard W. Besdine and pediatrician and health advocate Patricia J. Flanagan offer mentorship and, in some cases, act as research partners with our students. Their efforts are yet another example of how Alpert Medical School faculty generously share their talents to the benefit of medical education at Brown.

The program is also a manifestation of the efforts of faculty and students on the Curriculum Committee who have worked over the past few years to devise a new, inventive, twenty-first-century curriculum that anticipates and addresses changes in modern medicine, reflects the interests and learning styles of today's students, and is uniquely and genuinely Brown. I do believe they have succeeded.

Sincerely,\*

EM

## BROWN MEDICINE

Fall 2007 | Vol. 12 | No. 2

### EDITOR

Sarah Baldwin-Beneich '87

### ART DIRECTOR

Mindy Oswald

### STAFF WRITERS

Kris Cambra, Lisa Rowley

### EDITORIAL ASSISTANT

Jumoke Akinrolabu

### PRINTING

The Lane Press, Inc.

### EDITORIAL BOARD

Gale M. Aronson, George Bayliss MD'03, Norman Boucher, Robert Becher MD'06, Robert Gray '01 MD'05, Dana Cook Grossman '73, Krista J. Hachey '07 MD'11, Phyllis Hollenbeck '73 MD'77, Susan Adler Kaplan '58 MAT 65, Robert B. Klein, MD, Fraser Lang '67, Daniel Medeiros MD'86, Akanksha Mehta '02 MD'06, Christine Montross MD'06, Alan Muney '75 MD'78, Judy Owens, MPH '77 MD'80, Madeleine Shalowitz '75 MD'78, Fredi Solod '50

*Brown Medicine* may not be reproduced without prior consent and proper credit. Address all requests to the editor. The opinions of contributors do not necessarily reflect the views of The Warren Alpert Medical School of Brown University or its affiliated hospitals.

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

© BROWN MEDICINE 2007





# Field

## 30 The Hardest Word

BY KRIS CAMBRA

Does saying "sorry" prevent a malpractice suit or deliver an open-and-shut case?

## 36 Disarming Intimacy

BY CHRISTINE MONTROSS MD'06

An excerpt from an Alpert Med alumna's highly acclaimed memoir about life, death, and cadavers.

## 40 A New Age

BY SHARON TREGASKIS

The Medical School is designing ways to prepare all doctors, not just geriatricians, to care for elder patients.

### COLUMNS

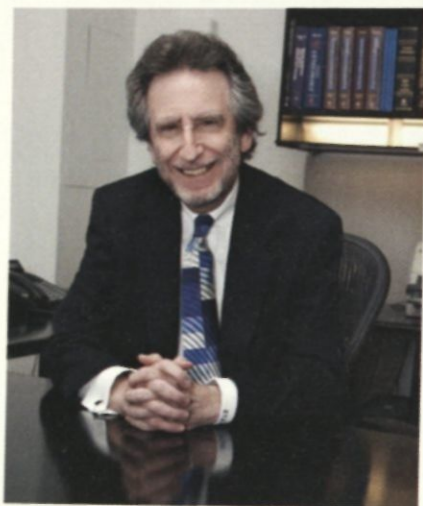
<b>Letters</b> .....	2
Rants and raves.	
<b>The Beat</b> .....	6
Joint effort   the great outdoors   disappearing ink.	
<b>Field Notes</b> .....	16
Not just umbrella drinks and cabanas.	
<b>Zoom</b> .....	18
Rock on, Bethesda.	
<b>Exam Room</b> .....	20
Don't forget primary care.	
<b>Resident Expert</b> .....	21
What cost success?	
<b>Momentum</b> .....	46
Perennial favorites.	
<b>Alumni Album</b> .....	47
Commencement, reunion, and more.	

### ON THE COVER

Scott Allen photographed  
by Scott Kingsley.



# LETTER FROM THE DEAN



## Old and New

This issue of *Brown Medicine* highlights areas of excellence in the Warren Alpert Medical School.

the study of the clinical laboratory, having produced leaders in health care. What is new for students now is to translate personal experiences into healing.

reproductive health to informatics, into scholarship. Implementing the program, the Scholarly Concentrations Program offers medical students the opportunity to define their educational experience by pursuing the scope of the core curriculum.

This summer, Alpert medical students undertaking a scholarly concentration embarked on the first leg of their academic journeys by beginning their research. One student went to Cambodia to study the spread of HIV. As part of their scholarly concentration, students will shadow professors who act as mentors and advisors. Their scholarly work that contributes to the field, be it a published paper, a symposium, even a biomedical device.

Though the program is voluntary, almost half of the Class of 2011 will undertake study in the ten (now eleven) concentrations offered. Faculty members will advise in these areas, such as geriatrician Richard W. Besdine and neurologist Patricia J. Flanagan offer mentorship. In some cases, students will partner with our staff. For example, a student will work with a School faculty member on a project.

Students on the faculty will devise a new, and addresses changes in the needs of today's students, and is expected to be successful.

## BROWN MEDICINE

Fall 2007 | Vol. 12 | No. 2

### EDITOR

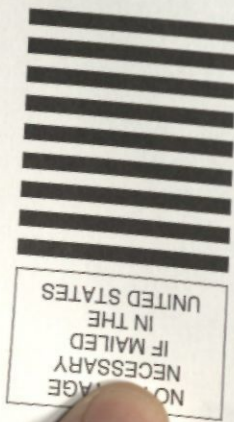
Sarah Baldwin-Beneich '87

### ART DIRECTOR

Mindy Oswald

### STAFF WRITERS

Kris Cambra, Lisa Rowley



COLLEGE OF BROWN UNIVERSITY

LY MAIL  
PROVIDENCE RI  
ADDRESSSEE

*Brown Medicine* may not be reproduced without prior consent and proper credit. Address all requests to the editor. The opinions of contributors do not necessarily reflect the views of The Warren Alpert Medical School of Brown University or its affiliated hospitals.

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

© BROWN MEDICINE 2007





**“[Physicians] have the ability to advocate in ways that other people don’t. It translates to a duty.”**

—Josiah Rich, MD

## INSIDE

### FEATURES

COVER  
22  
STORY

## First, Do No Harm. Then, Make Some Noise.

BY EILEEN O’GARA-KURTIS

Faculty passion and a new advocacy curriculum are enhancing Brown’s tradition of physician activism. Meet two physician-researchers who are speaking up and acting out.

## 30 The Hardest Word

BY KRIS CAMBRA

Does saying “sorry” prevent a malpractice suit or deliver an open-and-shut case?

## 36 Disarming Intimacy

BY CHRISTINE MONTROSS MD’06

An excerpt from an Alpert Med alumna’s highly acclaimed memoir about life, death, and cadavers.

## 40 A New Age

BY SHARON TREGASKIS

The Medical School is designing ways to prepare all doctors, not just geriatricians, to care for elder patients.

### COLUMNS

<b>Letters</b> .....	2
Rants and raves.	
<b>The Beat</b> .....	6
Joint effort   the great outdoors   disappearing ink.	
<b>Field Notes</b> .....	16
Not just umbrella drinks and cabanas.	
<b>Zoom</b> .....	18
Rock on, Bethesda.	
<b>Exam Room</b> .....	20
Don’t forget primary care.	
<b>Resident Expert</b> .....	21
What cost success?	
<b>Momentum</b> .....	46
Perennial favorites.	
<b>Alumni Album</b> .....	47
Commencement, reunion, and more.	

### ON THE COVER

Scott Allen photographed  
by Scott Kingsley.



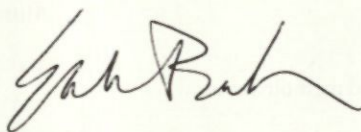
## LETTER FROM THE EDITOR

### Do the right thing.

If you look closely through this issue of *Brown Medicine*, you'll find singers and songwriters, poets and essayists, amateur photographers, mothers and fathers and grand-daughters. This being Brown, these individuals also happen to be doctors and scientists or people on their way to becoming doctors and scientists.

As you will see, many among them are also driven by the impulse to right wrongs, to intercede for those who can't, to refuse the status quo when the status quo is unjust or injurious or both. Personal reasons and professional principles push them to be activists and to teach others to be as well. Some advocate for those who have lost their homeland or their legal rights. Some advocate for members of their own profession, finding ways to allow physicians to preserve their humanity—by not being complicitous in harmful acts or by having the right to express remorse. Others are working to ensure that there will be people with the appropriate skills and knowledge to care for us as we age.

Whether they spend their days tracking down proteins or studying flying mammals or treating people like you and me and my ninety-two-year-old neighbor, they all appear to be animated by a similar passion: to understand something essential about human life and thus find ways to help us live better and die more decently.



## INBOX



### ON THE CONTRARY

I have just finished reading the latest issue of *Brown Medicine* and it is truly wonderful. Every article was terrific.

My only issue was with a comment made by Dean Adashi. In referring to the "nascent" academic health center, he hopes that these new changes can "undo a thirty-five year

### FREEDOM OF EXPRESSION

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

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

[brown\\_medicine@brown.edu](mailto:brown_medicine@brown.edu)



status quo." I'm surely not the only one who takes offense at that. A lot of people gave of their souls over those years, and to have that dismissed seems cavalier.

JANICE MILLER

*Director of Continuing Medical Education  
1986-1991, 1999-2006  
Cranston, RI*

## THE WAY WE WERE

Your spring issue of *Brown Medicine* touched me on many levels.

My initial response was the evolution from the newsletter twenty-five years ago to a magazine that reflects a significant forward step that coincides with the maturity and growth of the Medical Program at Brown.

More importantly, I think back to the early '60s, when the medical school was just beginning. At the time, I worked in Arnold Lab toward a master's in biology following graduation from Brown. Fred Barnes walked the hallways of Arnold, and I frequently spoke with him. Gradually, we became friends. I was moved by his quiet elegance, his humility, his thoughtfulness and his kindness. We spoke often, and he would ask my thoughts about various issues involving the fledgling medical program ... Henceforth, I followed its evolution with great interest and enthusiasm, mindful of its humble and difficult beginnings.

Now, thanks to the work of its leaders' foresight and the recent gift of Warren Alpert, [the medical school] is on the threshold of greatness where it belongs. Looking back, I somehow wish that I could have savored the moments with Fred Barnes and the highlights of the program's evolution more completely. I

realize that things I took for granted throughout my life, including my years at Brown, were more important than I ever realized. I guess the "happiest moments of youth's fleeting hours were passed ..." at Brown and elsewhere as I matured. Time does pass ever so quickly.

PAUL KECHIJIAN, MD '61  
SCM '64, P'02, '06  
Manhasset, NY

## KEEPING UP APPEARANCES

The recent article "The Doctor Is Out" (Spring 2007) raised two separate concerns that I would like to address. I am not an "old

bias in that they are my patients and may be telling me what they think I want to hear, but nevertheless, I found it interesting. From a fifty-one-year-old gay man who remembers the bad old days: "[The students] have no idea how much better things are now, why are they complaining?" and "I wouldn't want a person with a lip piercing waiting on me in a store," from a sixty-seven-year-old lesbian. Granted, both of these patients are of an older generation, but the patients that these students will be seeing on their rotations will also be largely of this age group.

While at Brown, I was taught to make sure that the patient feels comfortable dur-

**My first reaction to the term Queer Med was discomfort bordering on mild shock. I had the same reaction to seeing a medical student with a lip piercing.**

guy in a white coat." I am a fifty-nine-year-old female internist with a RISD degree who happens to be straight but has a significant number of gay patients.

My first reaction to the term Queer Med was discomfort bordering on mild shock. I had the same reaction to seeing a medical student with a lip piercing. Given my reactions, I thought that I would perform an informal survey of some of my gay patients ... So far, they all find the term Queer Med offensive, describing it as hostile and self-hating. The lip piercing also elicited uniformly negative responses.

I understand that this is a small and unscientific survey, and that there may be

ing the visit. Facial piercings, extensive tattoos, huge dreadlocks are most likely as off-putting to the average patient as a dirty white coat. These serve as distractions from the patient's problems, and may create a barrier between doctor and patient.

I understand the students' aims in raising awareness and lowering barriers. I also understand that Brown strongly encourages self-expression. However, patient care is about the patient, not about us. I would tell the students that we are human beings first, doctors next, and that sexual orientation is a part of who we are and in most cases is irrelevant to our patients.

JEAN F. SMITH MD '92  
*Clinical Instructor in Medicine  
Alpert Medical School  
Providence, RI*





**The APA removed homosexuality** from DSM-III in 1973 and the 1987 publication of DSM-III-R deleted ego-dystonic homosexuality as well. HIV has been a pandemic since the early eighties, but it is not the only issue to be considered in LGBTQ health issues. It is a bit disturbing to me that one of the premiere medical schools in the country has taken thirty-four years to "consider" a curriculum that would address the needs of the LGBTQ community. I am also hopeful that this is but one of many articles to come, as the needs of the LGBTQ community are as varied as its members.

It is the [patient-doctor] relationship that is so important. I have in my thirty years of being openly gay had good experiences with straight doctors and bad experiences with gay doctors. I think working to form a relationship that allows for open communication about a host of health indicators is as important as knowing the sexuality of the practitioner.

Give me a doctor who knows how to listen and take a good medical, psychosocial, sexual and substance use history, and wants to work



transsexual community is often lumped in with lesbian and gay, but their strife and lack of understanding of what it means to be transsexual is often lost. Also different is their need for skilled practitioners to assist in a usually difficult transition in a non-judgmental manner. The emotional and financial impact on each community is also very different. Access to care can be vastly different based not just on sexuality but the socioeconomic

fully started a swell of catching up to the conditions out here and I look forward to others' feedback and future issues.

**ROBERT HITT**

*Co-founder of AIDS Project RI  
Director of Project Aware (HIV Services)  
Stanley Street Treatment and  
Resources, Inc.  
Fall River, MA*

**The continued perpetuation of this myth only serves to reduce Dr. Drew's legacy to one moment marked by the ugliest of racist acts.**

at forming a working doctor-patient relationship any day over someone who happens to share my sexuality. With this said, I am extremely proud of the doctors and students who "outed" themselves for this article.

The lesbian community has a different list of medical needs all their own. Bisexuals often do not share their sexuality, as is now being seen in the "down low" phenomenon. The

impact bias and prejudice can bring in the workplace and in accessing insurance and care spans the gamut of individual situations.

I have learned so much working with the LGBTQ and substance using communities over the past twenty-three years. The issues are complex but not insurmountable once we recognize the full human condition and how similar we all are. The article has hope-

## TRUE STORY

**As an African-American physician**, I truly appreciated the article "Reap What You Sow" (Spring 2007). However, I was startled to find the following quote: "... 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 ..." Two things are wrong here.

First, Dr. Drew did not, as is commonly believed, invent blood banking—the work of many men and women contributed to this effort. He was, however, the first to serve in



the capacity now referred to as a medical director of a blood bank, and his efforts at mobilizing donors and developing methods to manufacture, store, and ship lyophilized plasma helped to save the lives of many servicemen in World War II.

founded distrust many African Americans have of the medical establishment, leading to reduced rates of participation in clinical research trials, as well as a problem that hits close to home: low rates of blood donation. This impacts alloimmunized sickle cell dis-

and am pleased that the Brown medical community is committed to supporting children and their families.

One area that I hope you'll cover in future articles pertains to autoimmunity and the environmental factors that trigger autistic spectrum disorders in some children. Given that autism now affects one in 150 American children, we need to move away from the traditional frameworks; genetic disorders can't possibly increase exponentially.

As a mother who watched her son's developmental skills crash following the MMR vaccination (with medical documentation to prove the regression), I hope for a day when children who are at risk can be screened out and vaccinated more safely; I also hope for a day when true medical treatments will be available to my son because there's a recognition of the autoimmune factors exacerbating his symptoms.

KATHLEEN YAZBAK  
Dover, MA

**As a mother who watched her son's developmental skills crash following the MMR vaccination, I hope for a day when children who are at risk can be screened out and vaccinated more safely.**

Second, Dr. Drew was not left to bleed to death at a hospital in North Carolina after his car accident. He was recognized by two of the white surgeons on staff at that hospital as a colleague, and these surgeons worked to save his life, but Dr. Drew's injuries were likely beyond what even a Level I trauma center could save today, having been ejected through the front windshield of a car that rolled over several times. There is a wonderful biography by Spencie Love titled *One Blood: The Death and Resurrection of Charles R. Drew* which provides further detailed information, particularly regarding the "Drew myth."

The continued perpetuation of this myth only serves to reduce Dr. Drew's legacy to one moment marked by the ugliest of racist acts; Dr. Drew served as a chairman of a department of surgery, and trained many of the African-American surgeons of that day, and was also an examiner for the American College of Surgeons, in addition to his accomplishments in early transfusion medicine. The other problem that the continued survival of the Drew myth may foster is a reinforcement of the unfortunately well

ease patients who rely on blood transfusion, more often than not requiring African-American blood donors to supply the necessary red cell phenotype to avoid hemolytic transfusion reactions. Dr. Smith's story is a great inspiration, as is Dr. Drew's complete, true story, and stories like those should be told more often.

SALLY A. CAMPBELL-LEE, MD '87  
Director, Transfusion Medicine  
University of Illinois at Chicago

**Author Sharon Tregaskis responds:**

I carefully chose "revolutionized" and not invented because of the fact that the work on blood banking had been ongoing and many people laid foundations, but Drew was a critical contributor/leader in the effort to make it more effective.

**BY THE WAY**

I'm writing you on Autism Awareness Day [April 30], and as the parent of a fourteen-year-old boy with regressive autism.

Please know that I was thrilled to see such a thoughtful article in your magazine "Looking Autism in the Eye" (Fall 2006),

**Nostra Culpa**

The specialty choice of three students was incorrect in the Match Day list (Spring 2007). Charlene Hooper, Monica Lucero, and Terrissa Martin all matched to programs in obstetrics and gynecology.

**Kudos Again**

Staff writer Kris Cambra's article "Changing Your Mind" (Spring 2006) won a Silver Medal for Best Article of the Year in the Council for Advancement and Support of Education (CASE) Circle of Excellence Awards Program.



# THE BEAT

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

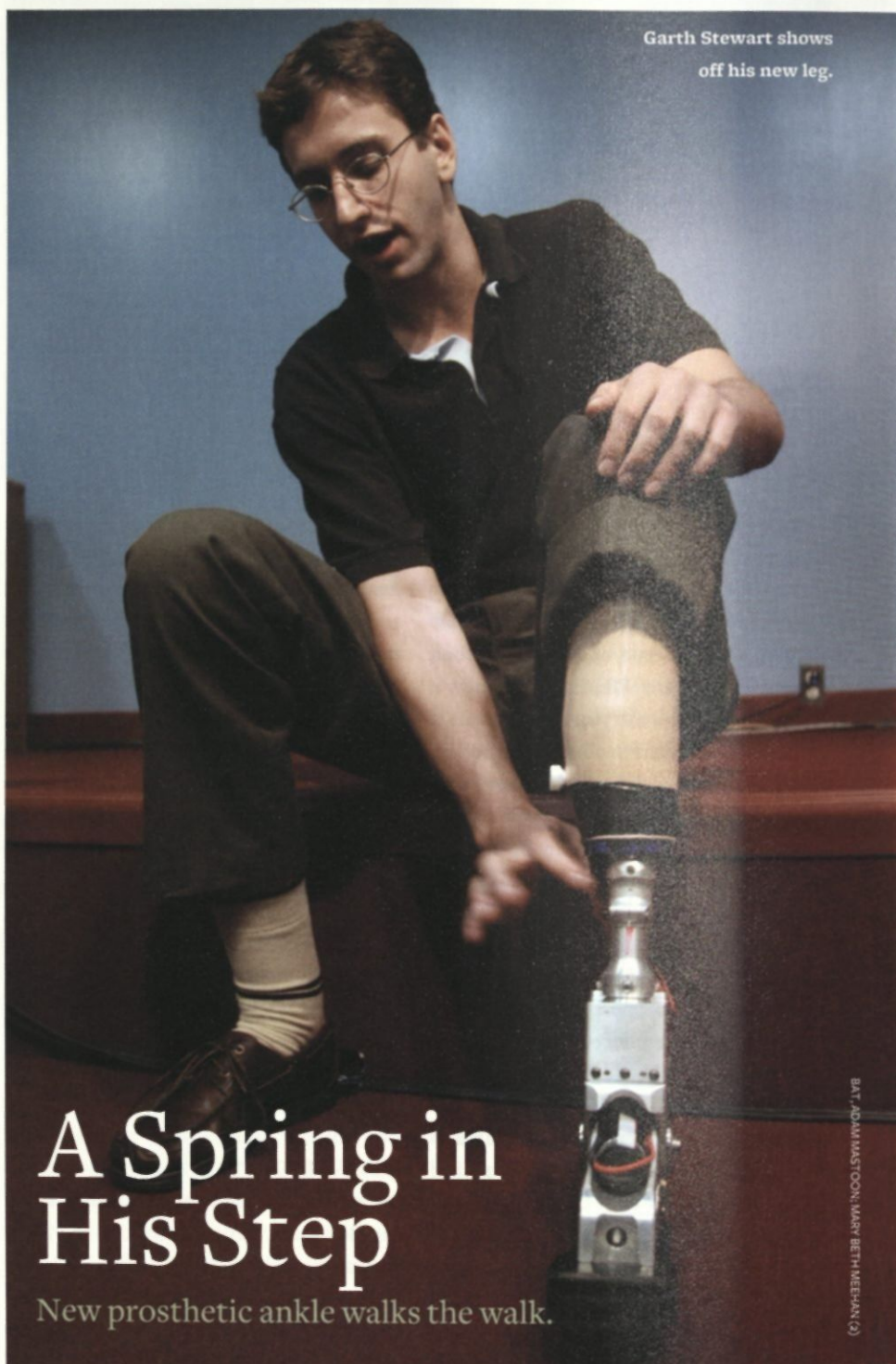
## INSIDETHEBEAT

<i>A big step</i> .....	6
<i>Back to school</i> .....	7
<i>Data at hand</i> .....	8
<i>Alarming proteins</i> .....	8

Page 9



<i>Bat mobility</i> .....	9
<i>Disaster fashion</i> .....	9
<i>In press</i> .....	10
<i>To tattoo or not to tattoo?</i> .....	11
<i>Our spiny sib</i> .....	11
<i>Retiring but not shy</i> .....	12
<i>Rx for young asthma sufferers</i> .....	13
<i>Big, brand new, and all digital</i> .....	13
<i>Da Vinci artistry</i> .....	14
<i>It's all personal</i> .....	14
<i>Feline intuition</i> .....	15
<i>High marks for RI</i> .....	15
<i>So happy together</i> .....	15



Garth Stewart shows off his new leg.

## A Spring in His Step

New prosthetic ankle walks the walk.

BAT: ADAM MASTOON; MARY BETH MEERAN (2)





Hugh Herr

**Garth Stewart** walked briskly across a stage in the crowded auditorium of the Providence VA Medical Center, while news reporters and their cameras, hospital dignitaries, and even a senator stared intently at his left leg. He picked up his pace effortlessly, something he hadn't been able to do since he lost the leg below the knee during the invasion of Iraq.

The twenty-four-year-old Army veteran was demonstrating the world's first powered ankle-foot prosthetic, developed through the Center for Restorative and Regenerative

**TECHNOLOGY** Medicine, a collaborative research initiative that joins Brown, The Massachusetts Institute of Technology's Media Lab, and the Providence VA Medical Center. Unlike any other, the prosthetic swaps muscle and tendon for electric motor and springs.

"This design releases three times the power of a conventional prosthesis to propel you forward and, for the first time, provides amputees with a truly humanlike gait," explains Dr. Hugh Herr, NEC Career Development Professor and head of the Biomechatronics Group at the Media Lab. Herr, a double amputee himself, has also been wearing the new prosthetic.

The computerized design of the ankle constantly "thinks" and responds, allowing the person to walk or run in a more natural and comfortable way. It's also easier to control. Traditional prostheses rely on the hip to drag the leg forward, putting pressure on the back.

With the robotic ankle, "you get the

push-off that a toe gives you," explains Stewart. "It feels like having your leg back."

Restoring injured veterans to the fullest possible extent is the mission of the Center, which was created in 2004 on the strength of a \$7.2 million grant from the Department of Veterans Affairs.

"I would never have said that we would develop a therapy in the first two-and-a-half years," says the Center's director Dr. Roy K. Aaron, professor of orthopaedics, "but we have."

The Center's goal is to improve the lives of individuals with limb trauma through tissue restoration, advanced rehabilitation, and new prosthetics that give amputees—particularly war veterans—better mobility

and control of their limbs and reduce the discomfort and infections common with current prostheses.

Faculty members with expertise in tissue engineering, orthopaedics, neurotechnology, prosthetic design, and rehabilitation are working together to develop "biohybrid" limbs that meld biological and man-made materials. Tissue engineers, for instance, are working to cultivate skin so that prosthetics can be grafted to existing bone and tissue. Neuroscientists hope to exploit the body's natural "phantom limb" phenomenon so that a user can move the prosthesis just by thinking about the action.

The ankle will go into clinical trials this fall and Herr hopes it will be available commercially by summer 2008. "We need to make it smaller and lighter without sacrificing function," he says.

That's a challenge, and so is scaling it up or down, so that it works for every amputee, from a man with a size-thirteen shoe to a woman with a size four. —**Kris Cambra**

## STAT SHEET

## NEW BLOOD

Wondering who's coming to Alpert Medical School this year?

**As usual, variety is the name of the game.** They hail from twenty-seven states—including Alabama and Washington, Massachusetts and Alaska—not to mention Tanzania and Singapore. Their undergraduate institutions range alphabetically from Amherst to Yale and geographically from northern New York (St. Bonaventure) to southern Florida (University of Miami).

Below are some more clues as to what the Class of 2011 is made of.

TOTAL STUDENTS		96	UNDERGRADUATE INSTITUTIONS		29
Female		53	After Brown, most students are from Harvard (4) and NYU (3).		
Male		43			
PLME		55			
Postbaccalaureate		6			
EIP		2			
MD/PhD		1	UNDERGRADUATE MAJORS		
Standard Admissions		32	Humanities		49%
AGE RANGE		21-36	Physical and Life Sciences		44%
ADVANCED DEGREES		5	Computer Science, Computational Biology, Engineering		7%



## The Future Is Now

Using IT to enhance primary care.

In 2000, the Center for Primary Care and Prevention at Memorial Hospital of Rhode Island went "paperless," converting thousands of patient charts into electronic medical records and ushering in the age of health informatics. In the ensuing years, the Center has pioneered efforts to harness the potential of information technology to develop tools that would give health

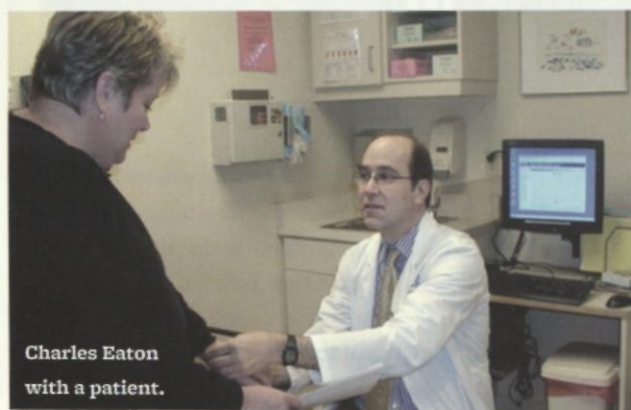
### COOL TOOL

care consumers a measure of control in the treatment and prevention of illness.

"We believe that really is the model of the future," said Professor of Medicine Charles Eaton last year. "If patients really took personal control of their health and did things proactively to improve their health ... they'd either prevent disease or lessen its seriousness."

Today Eaton and colleagues are moving forward with plans to make their IT visions reality. The Center, led by Eaton, has announced a partnership with electronic health record provider InterComponent Ware to integrate the Center's existing electronic medical records with a patient-controlled portal. The portal will allow patients to access their personal medical information, get nutritional and dietary advice, track prescriptions, even schedule appointments—all online.

The program, called Life Sensor, is in line with Eaton's philos-

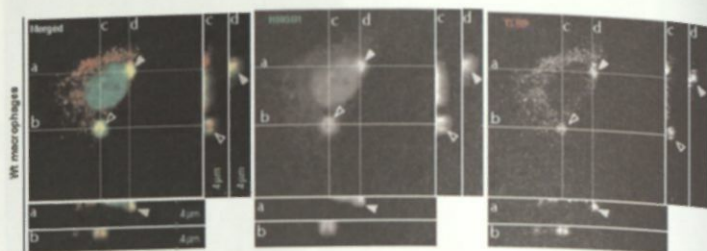


Charles Eaton  
with a patient.

**"If patients really took personal control of their health they'd either prevent disease or lessen its seriousness."**

ophy of medical care, which emphasizes the cooperative nature of the doctor-patient interface. "Health care providers and patients are equal partners in monitoring and managing patients' health," he says. He is quick to point out, however, that Life Sensor is "not meant to replace the traditional doctor's office practice but rather to enhance and improve upon it."

—Jumoke Akinrolabu



## Beware of Dog

Researchers sniff out the secrets of immune response.

A class of proteins known as toll-like receptors are the guard dogs of the immune system, sniffing out bacteria and viruses, then activating the body's immune system for an attack.

Their ability to quickly activate the body's defenses has recently made them a darling of drug makers. One of the most powerful guard-dog proteins in the pack, TLR9, can even sniff out a snippet of DNA common in bacteria and viruses.

### FINDINGS

The idea is to create DNA-based drugs containing these snippets, called CpG DNA. The drugs would get the guard dogs howling, which would trip a fast immune response, causing the body to

**"What's exciting is that drug makers might be able to use this knowledge to treat disease. CpG DNA and HMGB1 could be used together in a vaccine."**

attack cancerous tumors or, if used in vaccines, bolster the assault on infectious diseases such as hepatitis B and C.

But to make these pills or vaccines we need to know what gets the guard dogs howling. New research led by immunologist Wen-Ming Chu has uncovered one of these molecular mechanisms—high-mobility group box 1 protein, or HMGB1, a protein released when infection occurs, cells are damaged, or tissue is injured.

Chu, an assistant professor of medical science in the Department of Molecular Microbiology and Immunology, and his team found a direct interaction between HMGB1 and TLR9. When the invader's DNA is present, TLR9 meets up with HMGB1 inside tiny cellular "cargo boxes," where the two proteins bind to form a complex. This sets off a biochemical cascade that triggers the body's immune response.

When HMGB1 is absent from cells, they discovered, the body's immune response is significantly delayed.

"We found out that HMGB1 acts as an accelerator, quickly activating the body's defenses," Chu says. "What's exciting is that drug makers might be able to use this knowledge to treat disease. CpG DNA and HMGB1 could be used together in a vaccine."

Results of the research were published in the June issue of the journal *Blood*, then highlighted in the July issue of *Nature Reviews Immunology*.

—Wendy Y. Lawton



## HOLY AERODYNAMICS, BATGIRL!

Bats take flying to a higher plane.

In West Africa, bats are sacred. In China, their presence guarantees happiness and long life. Here in the States, the flying mammals invoke images of blood-sucking vampires and a certain caped, crusading superhero. But for Associate Professor of Biology Sharon Swartz, bats are much more than myth and could represent the future of military aviation.

### UNDER WAY

Swartz and colleagues at Brown's Bat Flight research program are applying an interdisciplinary approach to ask how bats do what they do: how is it that they are able to maneuver in flight in ways that would result in a crash landing for a bird or insect? How are they able to carry up to 50 percent of their weight? How can they fly with damaged wings and show no visible change in flight control?

The study that will answer such questions is supported by a five-year, \$6 million grant from the United States Air Force Office of Scientific Research. The group hopes that a deeper understanding of the mechanics of bat flight will lead to the design of smaller military air craft.

"The Air Force envisions a future in which they have autonomous air vehicles that can take on different kinds of missions and don't have pilots," Swartz says. "We know a lot about the aerodynamics of large things moving fast. There is almost nothing known yet about the basic physics of bat flight."

The team uses high-resolution, three-dimensional video to record bats as they fly in wind tunnels. Their observations have demonstrated the many ways in which bat flight differs from that of birds and insects.

"Bats have unique abilities. They can generate wing shapes and motions other animals can't," says Kenneth Breuer, professor of engineering and a member of the team. This shape-shifting ability is attributed to the two dozen independent joints found in bat wings that work in concert with a flexible skin mem-

brane to give bats more lift with less effort.

"Bats are operating with the same skeleton that we have. Every joint in the human hand is there in the bat's wing, and actually a couple more," Swartz explains. "Think about the degree of control that we have over the shape of our hands—bats are able to extend that to make fine scale adjustments during flight."

These factors may also explain the superior "towing capacity" of pregnant bats, which are able to carry a load equal to half of their body weight during gestation. Such load-bearing skills are of particular interest to the AFOSR, which hopes that the research will lead to the design of vehicles with dramatically increased payloads. —J.A.



Sharon Swartz



A model sports the improved safety suit.

## Design to the Rescue

Prêt-à-porter for first responders.

Brown bioengineers and disaster-response experts teamed up with students and faculty from RISD on an industrial design project to improve protective gear for paramedics.

### FASHION

The resulting prototype was featured in *Metropolis* magazine and was presented at

the National Disaster Medical System Conference. Professor of Orthopaedics Joseph

"Trey" Crisco, Adjunct Professor of Engineering David Durfee, and Associate Professor of Emergency Medicine Selim Suner worked with students from both schools in the RIH Medical Simulation Center. RISD instructors Matt Cottam and Jasper Speicher—a certified EMT—co-taught the joint studio course. —K.C.



## LESS RARE, BUT NO LESS MYSTERIOUS

**Incidence of cutaneous** T-cell lymphoma, a rare and mysterious cancer, is on the rise, according to the first nationwide study of the disease in a decade.

The study found that incidence more than tripled between 1973 and 2002, when 4,783 new cases were diagnosed.

Caused by the uncontrolled growth of a type of white blood cell within the skin, the cancer spreads slowly, and may start as a rash. The cause is unknown. There are treatments, but no cure.

Second-year medical student Vincent Criscione was lead author of the article, published in July in *Archives of Dermatology*. He conducted the research with guidance from Professor of Dermatology and Community Health Martin Weinstock, head of the Dermatoepidemiology Unit at the Providence VA.

Criscione's article describes trends in cutaneous T-cell lymphoma, including:

- incidence climbing steadily for thirty years
- men nearly twice as likely to be diagnosed as women
- blacks much more likely to be diagnosed than whites or Asians
- most common among the elderly
- incidence varies geographically and socioeconomically.

While the study doesn't answer why these trends are occurring, Criscione says, "having basic information on how the disease is distributed is an important first step to understanding how to prevent and treat it."

## RISKY BUSINESS

**Teens who engage** in one form of risky behavior, like drug or alcohol use, are likely to engage in others, like self-harm or unprotected sex. However, these behaviors are rarely discussed during a medical or mental health exam. Now, researchers at Alpert Medical School have shown that a simple

and brief screening measure called the adolescent risk inventory (ARI) can quickly and reliably identify the broad range of risk behaviors found among adolescents.

The study, which appeared in April in *Child Psychiatry and Human Development*, revealed that abuse or self-harm behaviors were highly predictive of sex risk. This is important, for while many clinicians are aware of the sexual risks that aggressive youths take, many are unaware of the association between those risks and emotional distress, abuse, and self-harm. Behaviors like self-cutting thoughts, suicidal thoughts or attempts, or a history of sexual abuse should alert clinicians to the potential for significant sexual risk, the authors say.

"Identifying early that a teen is engaging in a risky behavior may prevent it from being the gateway to further risky behaviors," says lead author Celia Lescano, assistant professor of psychiatry and human behavior (research).

## GET ACTIVE, INTERACTIVELY

**Researchers at Alpert** Medical School and The Miriam Hospital have found that web-based intervention programs aimed at changing the behavior of sedentary adults are just as effective as traditional, print-based programs.

The study, published in the May 14 issue of the *Archives of Internal Medicine*, "provide[s] evidence that different channels of delivery can provide equally effective results," according to lead author Bess Marcus, professor of community health. "Non face-to-face methods, such as the mail and the Internet, can reduce potential barriers such as lack of access to fitness facilities and time constraints." They also can be made available to larger populations at minimal cost.

Physical inactivity and dietary patterns are second only to tobacco use as a leading cause of preventable death in the U.S. Less than half of Americans engage in the recommended physical activity levels.

Says Marcus: "In 2006, 147 million American adults were Internet users. ...[T]his means roughly eighty million under-active adults are online and might be reached via web-based interventions."

## SOMEBODY'S GONNA GET HURT

**Are doctors ignoring** the American Academy of Pediatrics' longstanding recommendation to parents not to let their children use home trampolines? It would seem so, according to a study published in June in *Academic Emergency Medicine* by Associate Professor of Emergency Medicine James Linakis and colleagues from the Injury Prevention Center and the departments of Emergency Medicine and Pediatrics.

According to that study, the number of emergency room visits by children injured on trampolines has increased 113 percent in recent years, from a quarter-million in 1990-1995 to just over half a million in 2000-2005. Ninety-five percent of those injuries were on home trampolines.

This dramatic rise is likely due to the increased availability and affordability of home trampolines, according to Linakis. In 2004, 1.2 million new trampolines were sold in the U.S.

The authors' conclusion? Emergency physicians should join pediatricians in discouraging the purchase and use of home trampolines.



## I ♥ ~~See~~ Rhonda

New technology means tattoos without the commitment.

**In her laboratory**, Edith Mathiowitz makes tiny particles coated in polymers. These microcapsules, some as small as the point of a pin, can carry medicines, genes, paints, pesticides—any molecule that needs protection or controlled release.

Mathiowitz developed her technique as a drug delivery system, but her microcapsules are now being put to a very different use—to make ink for the first permanent removable tattoo. Under a new intellectual property licensing agreement signed by Brown University and Freedom-2 Holdings Inc., the company has the right to make and sell their ink based on research Freedom-2 has funded in the Mathiowitz laboratory.

With that funding, Mathiowitz and team have made microencapsulated dye-filled beads, which are mixed with a solution to make Freedom-2 tattoo inks. The inks are safer than conventional products, free of heavy metals and other toxins.

To top it off, the inks can also be easily removed with a single laser treatment.

## WHERE DO BABIES COME FROM?

Our cousin the starfish may tell us.

**The title sounds** like a piece of science fiction film noir: "Primordial germ cell

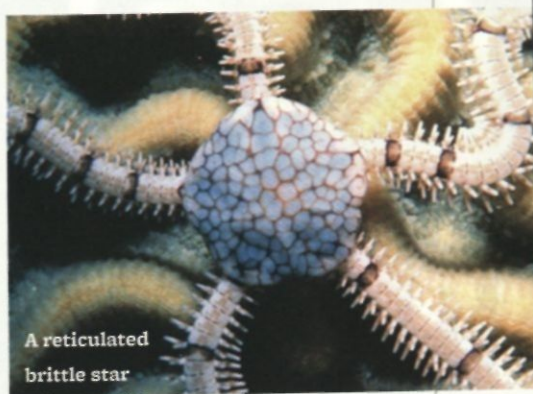
**SAY WHAT?** fate determination in echinoderms."

It's actually a grant awarded to Professor of Biology Gary M. Wessel from the National Science Foundation. But what does it all mean?

"This project examines the formation of stem cells in sea urchins and starfish—creatures that represent the earliest branch of animals that gave rise to humans, but which are easier to study," Wessel explains.

Last year he was part of an international science team that sequenced the genome of the sea urchin—or echinoderm—which revealed that it shares 7,077 genes with humans, making it more genetically similar to humans than other model organisms like *Drosophila* or *C. elegans*. A developmental cell biologist, Wessel led the scientists who identified the genes responsible for sea urchin reproduction.

That sea urchins have a clear embryo and the ability to lay millions of eggs in a lifetime make them particularly good models for the study of fertilization and reproduction. With their help, we may finally know which came first—the urchin or the egg. —K.C.



A reticulated brittle star

"It's terrific that my technology has such a cool consumer application," Mathiowitz says, adding that her microencapsulation method has other potential uses, particularly for making new medicines. In 1997, the professor of medical science and engineering founded Spherics Inc., a pharmaceutical

company that now makes drugs to treat nervous system disorders, gastrointestinal diseases, and cancer. Mathiowitz is known in the field for coming up with innovative coatings for molecules. The trick, she says, is understanding the substance that you're trying to protect. Microencapsulation requires a smorgasbord of scientific knowledge. Understanding of physics, physiology, biology, and pharmacology is needed, but mostly, the work demands expertise in chemistry—and the Mathiowitz lab reveals its chemical roots. The room is filled with beakers and vats bubbling with solvents, polymers, and dyes used to make Freedom-2 inks.

"Microencapsulation is a real science," she says, "and a real art."

It can also be big business. Microcapsules can be made to carry vaccines or human growth factors that can help the body regenerate bone, nerves, or cartilage. They also can carry controlled release drugs. Of the top 200 best-selling drugs in 2004, eleven compounds used oral controlled or extended release technologies and accounted for sales of about \$9 billion. —W.Y.L.



Edith Mathiowitz





Steve Smith  
in 1988

## Good-bye for Now

The Medical School's first dean of students retires.

**When Professor** Stephen R. Smith, MD, MPH, talks about stepping down from his position as associate dean of medicine, he tells a story about his mentor, David Greer, former dean of medicine and professor emeritus of community health.

"His wife always told him he 'flunked'

retirement. I'm afraid I may do the same," Smith jokes.

Indeed, while he hopes to do some sailing on his 1929 wooden catboat, the family medicine specialist may not find much free time—despite "retiring" from his duties as associate dean on July 31. He'll still teach the same highly popular undergraduate course he's taught for the past twenty years, *Cost vs. Care: The Dilemma for American Medicine*, and he'll continue to teach doctoring skills through his class for medical students. He'll also continue volunteering to see patients at Rhode Island Free Clinic (RIFC) each Thursday evening; he's been overseeing Brown medical students there since 2000, the year after it was established.

Smith—who earned his medical degree from Boston University School of Medicine in 1972 and his master of public health degree from the University of Rochester in 1977—began his career at Brown in

1979 as an associate professor of family medicine. In 1982, Greer appointed Smith as the Medical School's first dean for student affairs and curriculum. As assistant, and then associate dean, Smith organized the first clerkship in family medicine and played a pivotal role in the creation of Brown's nationally renowned Program in Liberal Medical Education.

"He was an extremely hard worker and very creative in his ideas," Greer says of his protégé. "He was my right-hand man as we put together the innovative PLME that's been the great jewel in our crown."

During the 1990s, Smith was the chief architect of Brown's competency-based curriculum, which has since become a model replicated by medical schools around the world. More recently he turned his creative talents to e-learning and developed a virtual practice for a global consortium of medical schools, the International Virtual Medical School (IVIMEDS).

Smith is also a long-time activist. In addition to his work with RIFC (whose board of

Smith's **advocacy** earned him AMSA's 2005 **Lifetime Distinguished Service Award.**

directors named him "Provider of the Year" this year), he helped create the National Health Service Corps while still a medical student, served as deputy mayor in his hometown of New London, CT, and worked to bring universal health insurance to Rhode Island. He currently serves on the board of directors of the National Physicians Alliance, a three-year-old multi-issue, multi-specialty physicians organization that he says is working "to restore integrity to medicine."

Smith's advocacy on behalf of medical students earned him the Lifetime Distinguished Service Award from the American Medical Student Association in 2005. "Dr. Smith was a terrific advisor who always had a supportive ear and useful suggestion. He encouraged me to do my best," recalls Pebble Kranz '91 MD'07.

Such awards indicate Smith has achieved the primary goal of his career at Brown—that is, "to bring to life the concept of the socially responsible physician."

"Everything I've done has been to further that part of our mission," he says. "That's my passion and my legacy." —**Mary Jo Curtis**





Juan (right) and campers

## Into the Woods

Chronically ill campers get a little breathing room.

**FIELD TRIP** For some young asthma sufferers, going to summer camp is out of the question. Swimming and boating are things other kids do.

The Community Asthma Programs of Hasbro Children's Hospital have been changing those notions with a week-long, overnight camp for children with asthma. Each summer thirty kids between the ages of

might not otherwise have a chance to go to summer camp," says Camillo. "Many of them have never been out in the woods before."

In addition to participating in traditional

**"Asthma doesn't have to prevent you from being a real kid."**

nine and thirteen take part in the summer program at the Canonicus Camp and Conference Center in Exeter, RI.

The annual camp—founded in 1998 through the support of private donors, corporate sponsors, local community groups, and Hasbro Children's Hospital—is open to all children in Rhode Island regardless of ability to pay. Chris Camillo, manager of Lifespan's Community Asthma Programs, works closely with the Neighborhood Health Plan of Rhode Island to identify children who are most at risk and in need of the camp experience.

"These are kids with moderate to severe asthma that's not well controlled, and who

camp activities like swimming, soccer, arts and crafts, sing-alongs, and canoeing, campers learn to control their asthma through daily messages and educational exercises such as "Asthma Family Feud" or "Asthma Trigger Treasure Hunt." Juan Vasquez, a second-year medical student, helped organize some of the daily activities and conducted research, while undergraduate Alicia Hartley volunteered to work with the children as an "asthma mentor."

"Being with twenty-nine other kids with asthma is probably the most beneficial message of camp," notes Camillo. "They learn having asthma is not such a big deal if you take steps to control it."

—M.J.C.

## DIGITAL-AGE O.R.

Operating rooms go high tech.

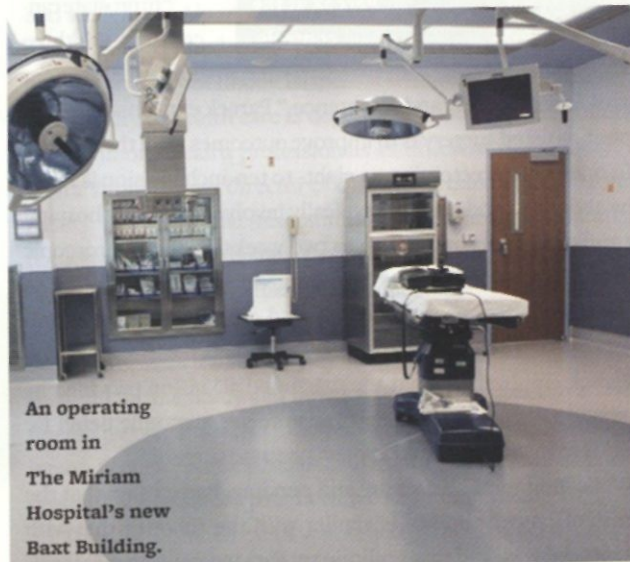
**Surgical patients have been transported** into the digital age since The Miriam Hospital opened its new Victor and Gussie Baxt Building in June.

Not only are the facility's ten new operating rooms double the size of the previous ones, they've been custom designed to accommodate technology-enabled surgical procedures—with Webcast capability.

### HOSPITAL

"They're quite incredible, and everything is digital," says Miriam CEO Kathleen Hittner, an anesthesiologist who has worked in the new surgical rooms.

Although many procedures are now minimally invasive, "the equipment hasn't shrunk," notes Hittner. The roomier spaces accommodate added technology, such as overhead lights with cameras that allow the surgical team a better view of proceedings and send digital images to television screens that can be monitored in real time from nearby nursing stations—or used later in teaching medical students. Computerized monitors installed in waiting rooms allow anxious families to track their loved one's progress from pre-op to surgery and recovery.



An operating room in The Miriam Hospital's new Baxt Building.

The ORs have also been wired for boom-mounted monitors that will soon enable hybrid cardiac procedures (angioplasty and a bypass done at the same time).

"The hybrid is not common, but it's gaining in popularity," Hittner says.

—M.J.C.



## I, Robot

Man plus machine equals new surgical technique.

**At the controls** of the da Vinci Surgical System, urologist Gyan Pareek, MD, becomes a real, live Vitruvian Man, in control of robotic arms with fully articulated 360-degree movements that respond to every roll and flick of his wrists.

The da Vinci is a state-of-the-art surgical robot that was acquired by The Miriam Hospital last November. Currently approved by the state's Department of Health for prostatectomies, it gives surgeons more precise views of the prostate and surrounding tissue, as well as greater dexterity. Its miniature instruments are controlled by a surgeon at a remote console.

At the controls one morning in late August, Pareek, an assistant professor of surgery, division of urology, removed the prostate of a fifty-one-year-old man with prostate cancer. Five keyhole-size openings were made in his abdomen. Three are for the surgeon's tools, two are for the assisting physician—in this case, second-year

urology resident Lanna Cheuck—and one is for the camera that relays magnified images from inside the body.

"In prostate cancer there are three concerns: cancer



Pareek at the controls.

control, incontinence, and impotence," Pareek explains. The goal of robot-assisted surgery is to improve outcomes in all three areas.

In open prostatectomies, an eight- to ten-inch incision is made in the abdomen, and recovery typically involves a five-day hospital stay and catheterization for up to two weeks. While laparoscopic methods have evolved, they require great skill and stamina to remove the elusive prostate, positioned deep in the narrow and bony pelvis and obscured by the bladder.

Pareek emphasizes "that the magnified 3D vision provided by the robotic system allows the surgeon to see anatomic detail far superior to that appreciated in open prostate surgery."

While long-term studies are still pending, Pareek says that the success of cancer removal is similar with the robot to that with open procedures, and that preliminary data indicates that incontinence and sexual dysfunction are comparable and possibly superior to open surgery.

The da Vinci also presents a new training opportunity for the Department of Surgery's academic endeavors. Urology residency director Anthony A. Caldamone '72 MMS'75 MD'75 says that the residents are now taking part in fewer open surgeries and more robotic procedures.

—K.C.



Francis Collins

## Knowledge Is Power

Multiple points of view on the next big thing in medicine.

**Last June**, some 200 people attended the fourth annual Frontiers of Health Care conference to hear national experts discuss the future of personalized medicine.

Dr. Francis Collins, director of the NIH's National Human Genome Research Institute, gave the opening keynote address, which was followed by a policy roundtable discussion moderated by Harvard Law School professor Charles Ogletree and a closing address by Dr. Mark McClelland, former commissioner of the FDA.

The day-long event inspired dialogue about the utility and implementation of genetic sequencing, as well as its legal, economic, scientific, political, and ethical implications. Will we be empowered by knowing our genetic information, Collins asked, or "will we increasingly think of ourselves as hapless victims of our genotype?"

### OVER HEARD

**"As a scientist, I have nothing to say about the soul. It's not a scientific idea."**

—Professor of Biology **KENNETH MILLER**, when asked what he as a scientist has to say about the soul



# The Cat Who Roared

Oscar, the death-predicting kitty.

Maybe it was the mid-summer news slump or just the public's unending fascination with death, but a cat named Oscar appeared on the pages of just about every U.S. newspaper and in media outlets around the world, from Europe to Japan.

Interest in Oscar was touched off by a piece written by Assistant Professor of Medicine David M. Dosa in the *New England Journal of*

*Medicine*. Dosa, a geriatrician, described how the two-year-old house cat who lives in the advanced dementia unit at Steere House Nursing and Rehabilitation Center was able to predict the deaths of twenty-five residents on the unit.

Oscar's M.O. rarely changes: about two to four hours before death, he curls up beside the patient. After the patient dies, he rises and simply walks away. Oscar's accuracy is such that once he settles in with a patient, the nursing staff will summon family members.

Media reports on the work of Brown's Center for Gerontology and Health Care Research are not unusual, since its researchers have produced some of the seminal data on end-of-life care, nursing home quality, and health care resource usage. But the frenzy over Oscar suggests that there's still an interest in knowing not only *how* we die in America, but when.

—K.C.



## HEALTHY STATE

Rhode Island gets high marks.

In June, the Commonwealth Fund Commission on a High Performance Health System ranked Rhode Island's health care system sixth overall in the country, ahead of Connecticut and Massachusetts.

The commission published the results of its State Scorecard, the first-ever ranking of states' health systems. The

scorecard assesses five key dimensions of health system performance: access, quality, avoidable hospital use and costs,

equity, and healthy lives. It also lists thirty-two specialized "indicators" of health-system performance, such as hospital admissions for pediatric asthma, breast cancer, and adults never experiencing a time when they needed to see a doctor but could not because of cost.

And Rhode Island came in first for hospitalized patients who received "recommended care for acute myocardial infarction, congestive failure, and pneumonia."

Visit [commonwealthfund.org](http://commonwealthfund.org) for the full report.



Panelists from  
Rhode Island  
Hospital's trauma  
surgery team

## Mutually Inclusive

What a concept: health and community professionals training together.

Doctors, nurses, pharmacists, and community advocates have much in common: all are invested in the health of their communities and each plays a significant, often converging role in steering a patient toward wellness after illness or injury. Despite their mutual

interests, clinical and community practitioners interact surprisingly little during their training.

### TEAMWORK

Shedding light on this blind spot within medical and human services curricula was the goal behind an April 12 panel discussion and case study organized by the Central Rhode Island Area Health Education Centers (AHEC) in cooperation with the Inter-Professional Development Project (ICDP), a network of educators and students at Alpert Medical School, the schools of Social Work and Nursing at Rhode Island College, and the College of Pharmacy at the University of Rhode Island.

"Quality in health care is dependent upon effective communication among health professionals in different disciplines," says Laura Vares, former director of continuing education programs at AHEC. "It is likely that miscommunication among health care professionals is due to the dearth of exposure and training that they have with one another during their schooling."

The panel discussion was led by nurses and physicians from Rhode Island Hospital's trauma surgery team and representatives from the Institute for the Study and Practice of Nonviolence. Vares says the interactive case study that followed called on students to consider the interdependence among health and community professionals as they deal with the needs of a patient with complex injuries.

The well-attended event was a success, but the need for continued dialogue among health professionals was clear in the program evaluations. "We read comments from students that said things like 'I didn't realize that social workers play such an integral role in [patient care]' or 'I didn't know that nursing students learn this subject,'" Vares says.

"Students don't know what their peers are learning. These comments led us to believe that knowledge can be gained by exposure to other professionals. It makes such a difference." —J.A.



## Bahamian Rhapsody

Two GIs bridge the gap between Providence and New Providence Island.

In the mid-eighties my wife and I purchased a one-week timeshare at Cable Beach in Nassau, Bahamas, five miles from the center of town. Our interest in the history of these islands, particularly with regard to the medical care of their citizens, prompted us to do some research.

The Islands of the Bahamas form a 100,000-square-mile archipelago extending over 500 miles of warm, clear, blue-green water. Seven hundred islands comprise the archipelago. New Providence Island is one of the smallest of the fourteen main islands and includes Nassau, the capital city, where two-thirds of the population of 300,000 resides.

In 1492 Columbus made the first European landing in the New World on the island of San Salvador, in the eastern Bahamas. He named the area from the Spanish *baja mar*, or "shallow sea." After a tumultuous history the British claimed the islands in 1670 and recognized them as a colony in 1718. In 1964 England granted the Bahamas limited self government and in 1973 granted their independence as a free and sovereign commonwealth.

The government insures universal access to essential health services regardless of the ability to pay. Private health insurance is offered and all workers, private or public, are required to participate in the National Insurance Scheme. In September the legislators were considering a bill that would provide for national health insurance for all Bahamian citizens.

For most conditions medical care is excellent in Nassau, where there are two major hospitals, Princess Margaret Hospital and Doctors Hospital. The publicly operated Princess Margaret Hospital has 400 beds; Doctors Hospital is a seventy-bed, privately operated hospital dealing with acute care. The Ministry of Health operates at least ten clinics on the family islands, and when more medical assistance is needed, patients are flown to Princess Margaret Hospital.

### JUST ASK THE LOCALS

As a gastroenterologist I was curious to know if there was a physician practicing this specialty on New Providence Island, so I looked in the phone book. That is how I found Dr. Harold Munnings, a native Bahamian, in 1992. He had just begun his practice there the year before, having completed three years of GI specialty training at the Bristol Royal Infirmary in England. I introduced myself by phone, and Dr. Munnings invited me to accompany him on GI rounds at Princess Margaret Hospital. From that visit to the present we have spent one day of my week's vacation together every year rounding at the hospital, seeing patients in his office, or performing endoscopies in his endoscopy unit.

Over the years Dr. Munnings and I have shared interesting and difficult cases together and developed a strong friendship. In the mid-nineties, a twenty-eight-year-old woman who had had her gallbladder removed for gallstones a year prior to her visit came by boat to see Dr. Munnings. She was deeply jaundiced. It so happened that she appeared during our timeshare week. An abdominal ultrasound suggested a possible common duct stone. Dr. Munnings asked if I would assist him with one of his first ERCP's (endoscopic retrograde cholecystopancreatography), endoscopic sphincterotomy, and stone removal. The procedure proved successful and the patient returned to her home on the following day. Dr. Munnings has since become an expert in this procedure.

### WHERE IN THE WORLD HAVE YOU BEEN?

You made the journey, now share your story.

*Brown Medicine* accepts submissions of essay ideas from Alpert Medical School alumni, faculty, and students that recount medical service outside the Providence city limits.

E-mail your idea to [brown\\_medicine@brown.edu](mailto:brown_medicine@brown.edu) or drop us a line at Brown Medicine, Box G-A413, Providence, RI, 02912.





Today, he often schedules difficult gastroenterological procedures when he knows I will be there.

On my most recent visit we saw several of his patients in follow-up who had come from various islands by boat or by plane, all clearly fond of their doctor. On the same day there were two colonoscopies performed in his endoscopy unit. Both patients were in their mid-eighties and were put to sleep by his trained endoscopy nurse using Propofol, a general anesthetic. A colonoscopy done in this way is painless for the patient. In the U.S., however, we have yet to use it routinely.


JESSICA DEANE ROSNER

## THE ONLY GAME IN TOWN

**From our first meeting** I was impressed with this man twenty-eight years my junior. He has superb organizational skills. He is highly motivated, meticulous, and astute. His consultative office and all of his medical work are computerized and paperless; reports on GI consultations are sent out on the same day.

He is also very accomplished: he founded the first hospital endoscopy unit in the Bahamas in 1991; he standardized the management of GI bleeding and organized the first GI clinic at Princess Margaret Hospital that same year. In 1997 he underwrote the first and only purpose-built ambulatory endoscopy center in the Caribbean. He has authored a book on the history of Princess Margaret Hospital and the article "A History of Gastroenterology in the Bahamas," which details digestive disorders starting with the Lucayans, the islands' first inhabitants. To this day Dr. Munnings is the only gastroenterologist in the Bahamas.

Clearly well trained and highly respected by his peers, Dr. Munnings has presented numerous scientific papers to medical conferences in the Caribbean. Because Nassau draws large cruise ships to its port, over the years he has managed a cadre of passengers with serious GI problems. At the twenty-fourth annual scientific conference of the Medical Association of the Bahamas in 1997, he presented twenty such cases that he treated successfully.

Dr. Munnings is married to Manera, a CPA who manages his busy office. They have two children, Harold Jr. and Jennifer, ten and six. Harold and his son visited my wife and me in Warwick last year on a trip to the U.S. for a medical conference. We have shared a unique relationship which I anticipate will continue in the coming years. Although I miss a vacation day on that beautiful island I look forward to spending time with my friend and colleague. 

**Joseph Dimase** is clinical assistant professor emeritus at Alpert Medical School, where he currently teaches first- and second-year gastroenterology fellows.



# ZOOM

BY LISA ROWLEY

UP CLOSE AND PERSONAL WITH JONAH COHEN

## PORTRAIT OF THE SINGER-SCIENTIST AS A YOUNG MAN

How a modern-day Renaissance man spent his summer.



Jonah Cohen

Jonah Cohen set himself an unusual pair of goals for the summer: pass the boards, and finish recording his latest CD. Composed of songs he'd written over the past three years, the album still needed a name. "Coming up with a title is always the hardest part," he says. He should know—the new CD will be his third.

With a taste for blues, folk, "anything soulful, really," this upstate New York native graduated from Brown in 2004 with a bachelor's in visual arts, then took a year off before starting medical school to explore his musical ambitions—mostly guitar, vocals, and songwriting.

The exploration was worth it. After waiting tables in a Cambridge Mexican restaurant and playing his guitar in Boston subway stations, Cohen found a manager who booked him steady gigs at colleges and clubs around New England. Today, his songs are available on iTunes, he has his own website ([www.jonahcohenmusic.com](http://www.jonahcohenmusic.com)), and he performs regularly in New York City. A licensing company in California

even called unexpectedly last year to place one of his songs in a small indie film and another in a documentary for ESPN.

### FINDING DIFFERENT WAYS TO CREATE

Cohen's interests in the arts and medicine both began early. He played piano and guitar from a young age before settling on the latter, because "as an eighth grader, there was just something more intriguing about playing electric guitar than classical piano." The son of a physician, he also saw what "a beautiful profession" medicine could be—how much his father learned from his patients and how profoundly he cared about them. "Deep down," Cohen says, "I think I always knew medicine would be my career. The combination of utilizing science to better care for people just seemed right for me."

With that future in mind, Cohen came to Brown through the Program in Liberal Medical Education, and shortly after his arrival on campus, he says, "my songwriting really began to take shape. I loved the creative process—it was my way of trying to make sense of life and the world around me."

As a concentrator in the visual arts, Cohen focused on painting and drawing and found his art classes "a refreshing complement to pre-med courses like organic chemistry." During his junior year, he spent a semester in Florence studying fifteenth- and sixteenth-century sculpture and painting. "To me, the Renaissance embodied the essence of representational art," Cohen explains. "Ironically, as if in reaction to that, I started exploring more abstract art while I was living in Italy." When he returned to Providence for senior year, he continued to "experiment with color in the absence of more traditional forms," while focusing more and more of his energy outside the classroom on songwriting and recording.

Today, with two years of medical school under his belt, Cohen sees definite parallels between the creative process and his studies. "Studying art revolves around using your eyes attentively, trying to recognize patterns," he explains. "In pathophysiology and physical diagnosis, you also begin to see patterns that are repeated in differ-



ent diseases within the various systems of the body. It's exciting to try to make integrations in a way that might not happen without a creative emphasis."

"There is so much room for creativity in medicine," Cohen says, recalling a doctor that he knows back home in Syracuse, who as a family medicine physician and songwriter has always been an inspiration to him. "Before I left to begin my first year, he told me I just might do some of my best writing in med school, as medicine is a source of inspiration like no other."

The family friend may be right. Cohen had an article published in *The Journal of Family Practice* last year. Based on an exchange he had as part of the Doctoring course with a seemingly nondescript sixty-two-year-old patient, the essay cautions against jumping to conclusions "in the blink of an introduction." The man he imagined as an aging blue-collar worker turned out to be a master jewelry maker whose work had been commissioned by the Vatican and the White House.

"Reserve thy judgment," says Cohen, quoting *Hamlet*.

## BENCH TO BEDSIDE

This July, as his classmates began their clinical rotations, Cohen headed instead for the Washington, DC, area to join the Howard Hughes Medical Institute–National Institutes of Health Research Scholars Program. With only forty-two scholars selected from 336 applicants, the highly competitive program enables medical students to live on the NIH's Bethesda campus for a year while they conduct research in NIH labs. Though he had little research experience

the clinic, and then right back again to the lab."

He and the other HHMI fellows spent the opening weeks of the program choosing a lab to work in during the year ahead. An as-

signed advisor, plus a database of previous HHMI scholars, helps guide the selection, though visiting the labs and speaking with the researchers remains the meat of the process.

Cohen wanted to make sure he was in an explicitly collaborative setting with mentors eager to teach. After visiting many labs, he decided on one in the National Institute for Deafness and Communication Disorders—perhaps not surprising for a musician—working with an ear, nose, and throat surgeon who is investigating cancers of the aerodigestive tract. Specifically, Cohen hopes to work on cell signaling pathways in tumors, as well as to investigate the links between inflammation and cancer.

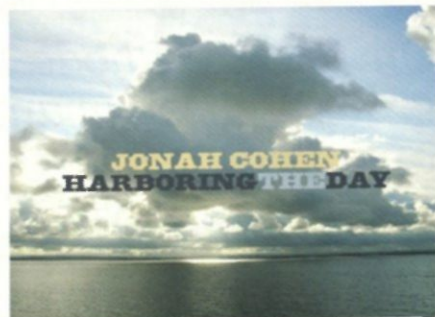
As Cohen describes the work of various labs he visited, he explains scientific terms like "angiogenesis" and "immunotherapy" with the clarity, ease, and enthusiasm of a born teacher.

"I definitely hope to teach at some point," he says. Last year he served as a teaching assistant for the general pathology course for first-years. "Being a TA was one of the highlights of my second year," he says. "I really enjoyed trying to make things easier to understand, as I get frustrated when something I'd like to know is not explained clearly."

## MISSION ACCOMPLISHED

Eager for as broad an HHMI experience as possible, Cohen is taking in all he can. In addition to exploring the NIH campus (he's still getting used to flashing his program ID at security check points) and venturing into DC and Georgetown, he takes an introductory yoga class via a daily podcast from Sedona, AZ, and plays guitar every day.

As for his summer goals, Cohen's two for two: he passed his medical boards and finished his CD. He even came up with a title: *Harboring the Day*, meant to evoke the importance of protecting one's time in overscheduled lives, of creating safe haven for what one most enjoys. ■



The man he imagined to be an aging blue-collar worker turned out to be a master jewelry maker whose work had been commissioned by the Vatican and the White House.

when he applied to the HHMI program, Cohen was excited about the possibilities, he says, "because I love questions, and research is all about exploring the unknown."

In Bethesda, the prominence of translational research impressed him. "Building 10," he explains, "is the clinical research center and it is enormous. About half of it is devoted to hospital beds and the other half laboratories. That proximity allows the principal investigators to move their work quickly from the lab, literally across the hall to



## Strength in Numbers?

**A strong hospital system might weaken primary care.**

*On July 28, Rhode Island's two hospital groups, Lifespan and Care New England, announced plans to merge. The resulting organization would comprise seven hospitals, five of which are teaching partners of Alpert Medical School. While proponents see the state benefiting economically and Providence being well positioned to compete with Boston for biomedical researchers and doctors, complex questions remain—about market balance, health care costs, and the fate of the six hospitals in the state not included in the merger.*

The proposed merger of Lifespan and Care New England may well herald a new era in Rhode Island. The union of these organizations makes the proposed move of Alpert Medical School to the South Providence area a much more powerful synergy, which potentially brings together big medicine, big research, and high-tech industry.

This collaboration may well be a driver for both health and economic development in Rhode Island. However, there are some unexpected consequences of these actions that need to be addressed—particularly the potential unbalancing of the health system infrastructure in the state.

The Lifespan-Care New England merger will clearly enhance the delivery of highly specialized services. Without proper attention, however, Rhode Island's already compromised primary care system may be further weakened. Without strong primary care practices, health insurance in Rhode Island, already expensive, may become downright unaffordable to most, and Rhode Island's most vulnerable people may see their health jeopardized.

Studies of other health care systems, across the U.S. and around the world, show that primary care improves health outcomes and

reduces cost. In addition, the role of prevention and preventive services is increasingly important in protecting the health of the population. A merged hospital system, with new political clout, and more negotiating power with insurers, is likely to consume more of our health care resources. Might some of these resources be better used to bring communities and primary care practices together, and to facilitate everyone getting involved in prevention and chronic disease management?

The merged hospital system will also determine the focus of medical training programs, which have recently been all too specialty oriented. The next generation of primary care providers needs to be ensured, since Rhode Islanders will certainly need highly skilled, knowledgeable, patient-oriented physicians who will care for their whole physical and mental health.

A merged hospital system will do a better job of bringing high-tech jobs and research to Rhode Island.

A vibrant primary care system will do a better job of keeping us healthy, and of keeping our health care affordable.

The challenge isn't in choosing between two good things. The challenge is to keep our health care system balanced, so we get the new high-tech and research jobs and easy access to affordable health care and preventive services.

The challenge is to speak up, so that our citizens and our public

Studies show that **primary care improves health outcomes** and reduces cost.

officials understand the importance of both improving the hospital system and building vibrant primary care, so Rhode Islanders, and Rhode Island communities, develop a health care system that is personal, affordable, rational, excellent, and just.

**Jeffrey Borkan** is chair of the Department of Family Medicine. **Mark Jacobs** is president of Coastal Medical Inc., Rhode Island's largest private group practice. This article also appeared in the Providence Journal on August 19.



# Talkin' About My Generation

It doesn't have to be all or nothing.

**I**t was early Saturday morning and once again I found myself trudging from the parking lot into the hospital. Minutes earlier I had deposited my screaming daughter in my husband's arms, leaving him to calm her and explain why Mommy couldn't stay and play. The past two months had been a daily struggle: to keep Maggie fed, clothed, and occasionally clean; to keep John sane while he defended his PhD thesis; to get

me through the final two months of internship. And as I walked in that morning, knowing that my family needed me but I couldn't be there, I had an unsettling realization: *This is how divorce begins.*

It begins with consistently, repeatedly putting your work first. The long hours and inflexible schedule of internship mean all the "little" parenting tasks fall to my husband: every morning getting her dressed, fed, and off to daycare; on call nights getting her fed, bathed, into pajamas, and off to bed; taking her to the pediatrician; missing a day of work when she's sick and must stay home. I do my best SuperMom impersonation when I'm home—playing with Maggie, paying bills, catching up with laundry and dishes—but it's never quite enough. This past year, John frequently was a single dad whose work and career came second.

Fortunately internship lasts for a year, not forever. Our relationship is not in jeopardy after those twelve months. But that morning I glimpsed what could happen if day after day my work comes first, last, and always. As an intern I had very little ability to change this. As a resident I will have a bit more freedom with my schedule. The critical decisions will come after residency when I take the next steps in my career path. Girls of my generation were taught to be career-oriented. *You can be president! Work hard, apply yourself and the world is your oyster!* We disdain the absentee fathers of previous generations who relegated child rearing to their Cleaver-esque wives. And yet if we're not careful with our choices, we will become absentee mothers, relying on husbands and nannies to raise our children. If we're not careful, our drive as professionals will undermine our lives as mothers, wives, friends, and daughters.

Hanging up the stethoscope is not the answer. It is possible in some reasonable measure to be a successful mother, wife, sister, daughter, and physician. But awareness is only part of the solution.



As individuals, we must consciously and deliberately observe the give-and-take in our own lives, adjusting our choices and actively finding our own unique balance. Because each of these roles involves another—spouse, parent, child, patient, colleague, friend—we mustn't forget to involve them in our decision process.

As a profession, we must continue and expand our examination of personal-professional balance and its impact on all physicians. Our literature demonstrates the importance of strong family and community connections, the benefits of healthy lifestyles, and the detriment of long hours to patient and physician alike. Yet our system still depends on the dedicated physician—toiling long hours at the expense of self and family—in order to function.

This is not merely a "women's issue" or a "parenting issue" but a quality of life issue. Between increasing numbers of two-career couples, fathers taking more active or even primary roles in child-rearing, and grown children caring for elderly parents, everyone has a stake.

"Coping strategies" are merely temporizing measures; for real change we must turn our attention to the underlying structure and culture of medicine in particular and society in general. Should flex-time or job sharing be the norm rather than the exception? Should academics of both genders be able to pause the tenure clock for family demands? How can we structure residency and medical practice to reward smart work rather than more work?

These big questions have no easy answers. But I challenge you to ponder these questions concretely with the next three people you meet. What is their job like each day? How does this affect their family? How could we do it differently?

**Micaela Hayes** is a resident in Brown's general internal medicine residency program.



First, Do No Harm.

Then, Make Some

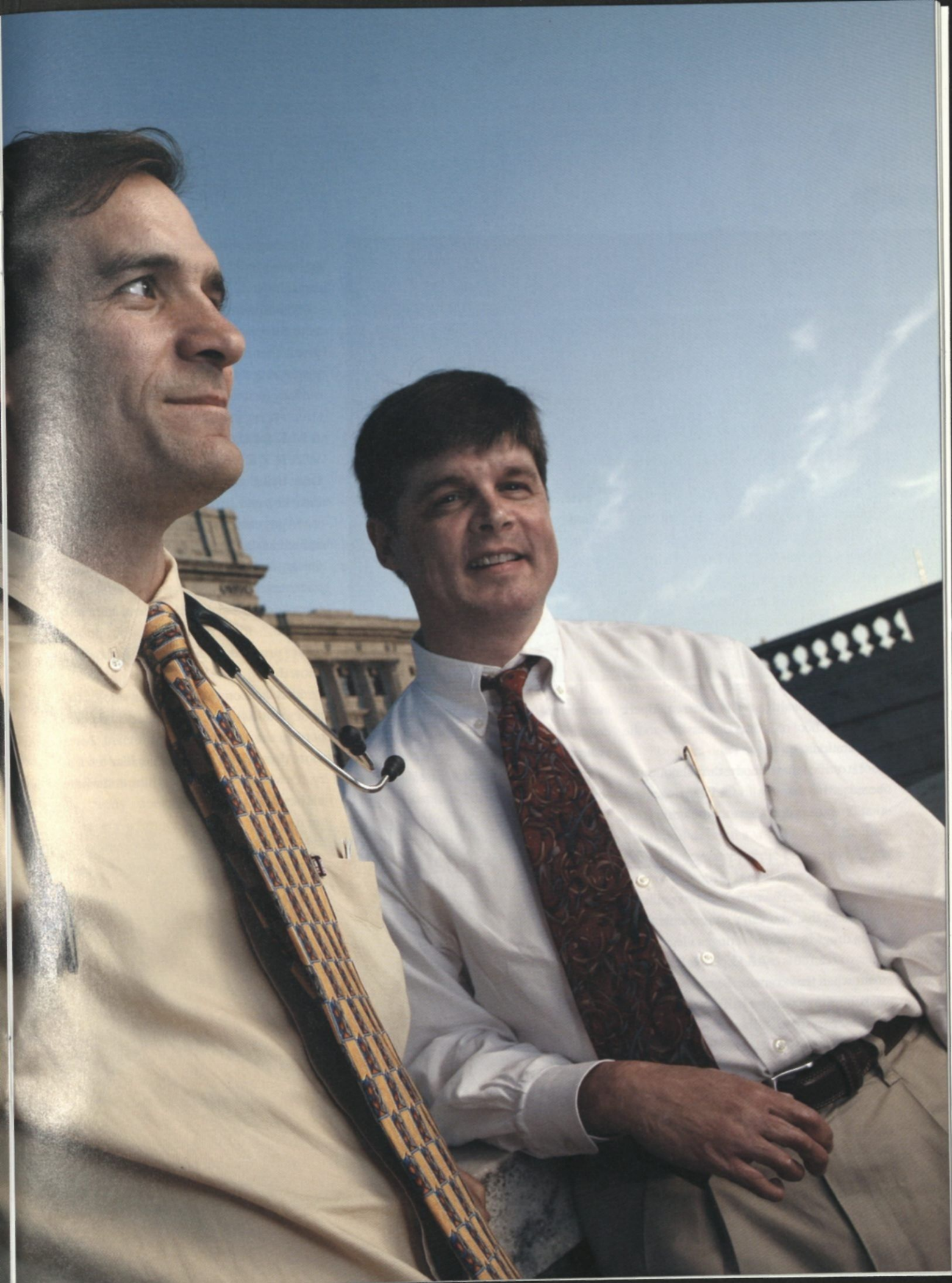
# Noise.

BY EILEEN O'GARA-KURTIS

PHOTOGRAPHY BY SCOTT KINGSLEY

Josiah Rich (left) and  
Scott Allen in front  
of the Rhode Island  
statehouse.







**On** an April evening a couple of years ago, in the lovely seaside town of Westport, MA, Josiah “Jody” Rich found himself standing on the fraying edges of public policy—or, more specifically, standing on the steps of Town Hall with a bullhorn in the pouring rain.

Two days earlier, the Westport Town Council had voted to allow the Fall River, MA-based Stanley Street Treatment and Resource Center, Inc. (SSTAR) to launch a needle-exchange program in town.

Rich had contributed his expertise and the weight of his credentials—as a former member of the SSTAR medical staff, as an infectious disease specialist based at The Miriam Hospital, and as a professor of medicine and community health at The Warren Alpert Medical School of Brown University—to the deliberations.

“I testified that nobody starts shooting up because they happen to find a syringe, and that drug users don’t have a problem getting

Here’s how the New Bedford *Standard-Times* reported it the next day:

*In a quiet, pained voice he attempted to plead his case to the crowd. “I am an infectious disease specialist and...”*

*“Where you from?” a man asked.*

*“Providence, Rhode Island.”*

*“Go back to Rhode Island. We don’t need you in Westport,” the man said.*

*Dr. Rich persisted, and tried to portray the venom that had been pulsating all afternoon as misdirected anger about drug abuse. “I hate it when someone comes in to me and they are addicted to drugs,” he said. “I hate it when someone dies from drug use ...”*

*A woman several feet away from him shouted, “Yeah, and I hate when they break into my house.”*

The Town Council voted to rescind its vote to approve the needle-exchange program. Then it voted never to entertain such a proposal again.

Jody Rich went back to Providence.

## AMERICA’S LEAST WANTED

One brief conversation didn’t make it into the paper.

“A guy came up to me after it was all over and said Doc, you have no idea ... this is in my family, you have no idea how close this is to me ... someone very close to me has an addiction, and when he dies I will go to the funeral and that’s about it,” Rich remembers. “Addiction makes people do things that are godawful. I know that.”

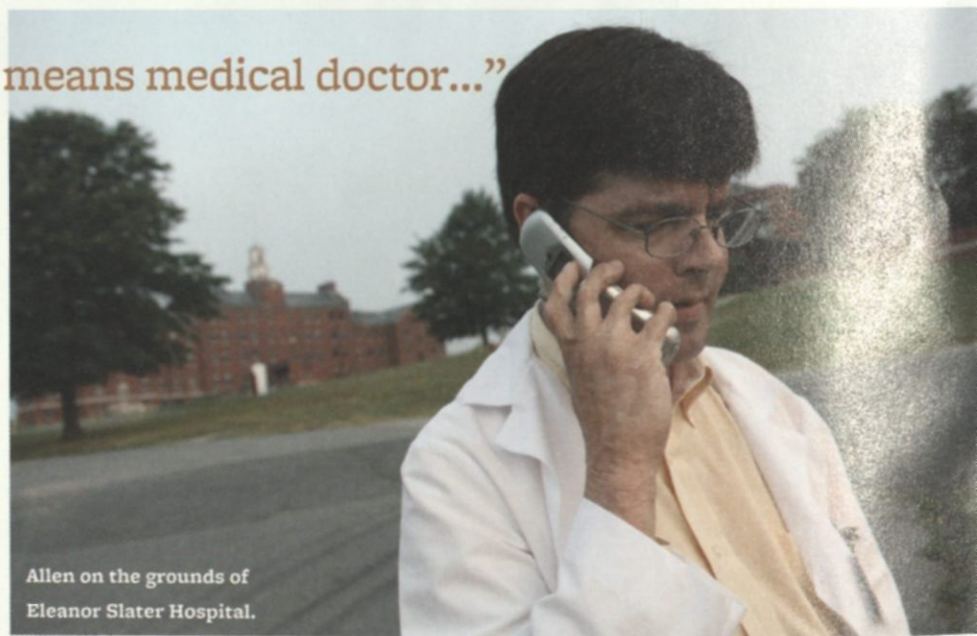
Rich lives on the unpopular side of the policy world—the side inhabited by the forgotten, the feared, and the reviled. After more than two decades, it’s familiar territory. It’s where his work takes him, and where his heart is.

## “When I’m here, ‘MD’ means medical doctor...”

syringes, just sterile syringes,” he recalls. “I told them that you can’t stop people from using drugs by making syringes illegal—but what you can do is try to get people into treatment when they come in. Because once you start injecting, you are in a whole different risk category for AIDS, hepatitis, and crime.”

The Town Council bought Rich’s argument. The town didn’t.

More than 300 local residents—far too many to fit inside—turned up at Town Hall two nights later to protest the decision and circulate petitions to recall the Council. Which is how Rich ended up on the steps, in the rain, with the bullhorn.



Allen on the grounds of Eleanor Slater Hospital.



Clinically, Rich divides his time between The Miriam Hospital, an Alpert Medical School-affiliated teaching hospital, and Rhode Island's Adult Correctional Institutions (ACI), where he co-directs the infectious disease program with Professor of Medicine Timothy Flanigan. He sees patients whose lives are eroded by crime (of which they are often both victims and perpetrators) and shattered by substance abuse. Many are HIV-positive.

When he's not treating them, he's speaking for them—advocating for substance abuse treatment in prisons, alternative sentencing models, a transitional methadone program for inmates, and other reforms.

"We're seeing dramatically increasing rates of incarceration in this country, and

**"... When I'm home, it means Miles's dad."**

it's directly related to our societal failure to address addictions and mental illness," Rich says. "We're taking a corrections approach to a social problem, and ultimately it just doesn't work."

"Jody doesn't give up," says Neil Corkery, a former Rhode Island state representative, now the executive director of the Drug & Alcohol Treatment Association of Rhode Island. Corkery and Rich collaborated to launch Rhode Island's needle-exchange program a decade ago. "If one approach doesn't work, he finds out what people's concerns are and works with them. He has a great talent for turning constituencies around."

"Because he has an MD after his name, people listen to him at the State House," Corkery adds. "But he doesn't come across as an academic. It's very, very clear that he's been in the trenches."

Last year, Rich teamed with a colleague, Clinical Assistant Professor of Medicine Scott A. Allen MD'91—well known in Rhode Island as an advocate for humane treatment

Family portrait (left to right): Miles, Emma, Scott, and Kari at home.



of prison inmates, and known elsewhere as a growing force in the international human rights movement—to launch the Center for Prisoner Health and Human Rights at The Miriam Hospital. Their constituency: people who, as Allen puts it, "go from America's most wanted to America's least wanted" when the steel door closes behind them.

The nascent center has already become a magnet for media interest; Rich and Allen are widely quoted on topics ranging from inmate health to human rights for detainees (see sidebar, p. 29). It is also drawing together a disparate group of Medical School faculty and students who are interested in the welfare of the incarcerated. And it's part of a growing movement to create an academic home for those who are interested in the societal context of medical issues.

"We have a lot of people doing research and working with correctional populations, and it's helpful to be aware of each other's work," says Rich. "It's also helpful to have that wealth of perspective in bringing focus

to our work and bringing attention to the issues we care about."

"Doctors don't speak up often enough," says Allen. "It's important to create a locus of expertise that will give people a place to explore their concerns, advance the discussion, and develop a voice. One of the most rewarding aspects of the Center is that students—creative, humanistic students—are finding us on their own and making great contributions."

#### MILES'S DAD

A late spring snow is falling in Cranston, RI, and the muffled sounds of traffic on New London Avenue can be heard from the walkway between the ACI and Eleanor Slater Hospital, the state's public chronic care facility. Inside, some of Rhode Island's most vulnerable citizens—people brought low by mental illness and dementia, paralyzed by street violence, diminished by accident or injury—are preparing for night.

Scott Allen will be here until dawn.



## THE MAKING OF AN ACTIVIST

### Scott Allen lit the match.

**Suddenly,** the summer afternoon erupted with the sounds of little boys screaming and small, sneakered feet trying to stomp out the flames. In an instant, a backyard campfire had gone horribly wrong.

Fire. Pain. Darkness.

Shriners.

Over the next few months, surrounded by injured children on a windowless burn unit, the ten-year-old boy Scott Allen had been before the accident would become someone new. A boy with a new kind of radar for the pain of others. A boy who knew that life is not fair.

"I was actually in better shape than a lot of other kids on the burn ward, but there was immense suffering all around me," he remembers. "You can't go through that and not come out with a heightened sense of compassion. It changes your view of the world."

The physical scars are not the first thing you notice when you meet Allen today—but they're still there. The emotional scars are there too, but they've morphed into something else, something stronger—a new kind of connective tissue that throbs with a pragmatic empathy.

He is wary, however, of anyone thinking of him as some kind of sainted crusader for good—or as a person who sees himself that way.

"People who don't know me sometimes misunderstand me as someone who's a naïve idealist. Nothing could be further from the truth," he says.

When he was seventeen, Allen broke some rules and leapfrogged over layers of bureaucracy to get himself to the heart of holocaust—arriving unprepared and untrained in the refugee camps of Cambodia, offering only a compulsion to help. He would spend a year among the survivors of Pol Pot's killing fields.

"I couldn't rationalize *not* trying to do something," he says simply.

Being there—getting close enough to absorb the pain of people who need help—is, Allen believes, how advocates are made.

"The first step is simple exposure," he says.

The year in Cambodia taught him about the unseen scars that people bear, about the strength of human dignity, and about the Eastern view of the inevitability and value of pain. "Buddhists know that you're never going to end suffering ... the name of the game is to alleviate it when you can."

He also learned something about endurance. "I looked around, and there were people who were clearly going to be in the [relief] business for a long time and other people who were burning out fast. If you're going to stick with this work, you have to make sure that you take care of yourself. And you have to understand that the challenges will sometimes be overwhelming, and that you'll measure your progress in small victories and big setbacks."

"Sometimes, life isn't about keeping your feet on the ground," he adds. "Sometimes it's important to be able to lift your feet up and let life carry you."

Traveling the wards and corridors of Eleanor Slater, Allen is part small-town mayor, part country doctor. A nurse catches him to ask a question about a patient's meds. A pleasant, elderly woman with a walker, who happens to have a tendency to bite when agitated, pauses to say hello. In an elevator, a young man in a wheelchair, surrounded by a posse of friends who've stopped by for a visit, updates Allen on an altercation he had with his roommate last night. "Not good, man," Allen says.

Allen looks everyone in the eye and gives his undivided attention. They will have it until morning, when he will leave the hospital and go home and take his thirteen-year-old son, Miles—disabled by a congenital brain anomaly—to school.

"When I'm here, 'MD' means *medical doctor*," he says, pointing to the embroidered name and credential on his white coat. "When I'm home, it means *Miles's dad*."

Allen is also six-year-old Kari's dad. His wife, Emma Simmons MD'91, is an assistant professor of family medicine, based at Memorial Hospital of Rhode Island. They met in medical school at Brown.

Miles Allen will never publish a paper, treat a patient, or give a lecture. But he's already made a significant contribution to medicine by shaping his parents' lives as physicians.

An MRI taken soon after Miles was born, early in Scott and Emma's careers, made it clear that he would require constant care. The need for regular hours was one factor that led Scott to take a position on the medical staff at the ACL. Which led to his collaboration with Jody Rich and the launch of the Center for Prisoner Health and Human Rights. Which led to his appointment as a Soros Advocacy Fellow, collaboration with the international advocacy group Physicians for Human Rights, and a place in the escalating debate surrounding the rights of detainees.



Miles's odyssey has also given his father a deep appreciation for the value of incremental victories and the relativity of success—qualities that are essential for all physicians, but especially for physician-advocates who intend to be in it for the long haul.

"When Miles has what most of us would consider a minor victory, it's immense ... huge," Allen says. "And you know what? He's a really happy kid. When it comes down to it, what do all parents want for their children? For them to be happy. Within his scope of experience, Miles is happy."

"Life has repeatedly had to bang me over the head to get it," he adds. "But, because of Miles, I'm very grounded."

## FIRST, DO NO HARM

**Scott Allen knows** a few things about trauma. A survivor himself (see sidebar, p. 26) and a veteran of both the American correctional system and the Cambodian refugee camps, he has witnessed his share of violence.

Still, the first photos from inside Abu Ghraib made him catch his breath.

When the images began to flash on America's laptop screens, Allen was on a rare hiatus. He had recently resigned his post as medical director at the ACI (partly in protest of the prison's response to an incident of what he viewed as inmate mistreatment) and had not yet begun his current assignment at Eleanor Slater Hospital.

As the Abu Ghraib story unfolded, it became increasingly apparent that events at the prison occurred in the context of a larger culture and system—a system that included military physicians and psychologists.

Allen identified with the inner conflict that can occur when a physician is caught in a system whose values are not always congruent with his own. "What do you do, as a physician, when you are asked to do something or support something that runs counter to your principles?"

Allen had begun his journey into policy-level advocacy in 2003, as lead author of the nation's first study on treatment of hepatitis C in correctional populations, which



Late at night, Allen gives a patient at Eleanor Slater Hospital his undivided attention.



he'd conducted at the ACI. His work influenced the development of an NIH consensus statement on the issue. Now, he felt called to step on the gas.

At the recommendation of Rich, Professor of Medicine Michael Fine, and Associate Professor of Pediatrics Patricia J. Flanagan, all of whom had been awarded Soros fellowships, Allen applied for and won a Soros Advocacy Fellowship for Physicians at the Institute on Medicine as a Profession at Columbia University's College of Physicians and Surgeons. Designed to advance advocacy as a core professional value for physicians and to enable doctors to develop and enhance their advocacy skills, the fellowship supports a cadre of physicians across the United States who are working to achieve system or policy change at the local, state, and national levels.

"George Soros funded the advocacy fellowship program because he believes that physicians, lawyers, clergy, and a few other professionals have historically held leadership roles that counterbalance the power of the state," says Allen. "It gave me the means to make the leap from doctor and concerned citizen to advocate."

Over the next two years, as Allen continued to practice at Eleanor Slater and in a pri-

have when they happen upon evidence or histories of abuse in their patients," he says. "What are their responsibilities? To tend to the wounds and look the other way? Report up the chain of command? It was clear that tightening up ethical guidelines for physicians would protect everyone."

Allen testified before American Medical Association leadership to advocate for strengthening of a position statement reinforcing physicians' obligation to decline participation in interrogation. Variations on the statement were later adopted by virtually every specialty society.

"It's not that interrogation is not important, or that these functions are not legitimate. They are just not appropriate or ethical functions and roles for physicians," Allen testified. "I am here to argue for the protection of the profession itself, and for the protection of physicians who find themselves in the service of their country in the most difficult and trying circumstances."

Working with Cambridge-based Physicians for Human Rights, he and two colleagues also reviewed Department of Defense data on all known deaths of detainees in U.S. custody between 2002 and 2005. The team found that, of 112 detainee deaths in Iraq and Afghanistan during that

"It's been like stepping on a surfboard with a tsunami rolling in," he says. "I have the sense that this will come to be one of those stories that they'll be teaching in medical ethics courses for years to come. It will be as big as Tuskegee."

## MAKING SOME NOISE

**Advocacy**, Allen points out, doesn't need to be in the headlines to be important. The everyday realities of today's practice environment—whether one works in a private office, a hospital, a clinic, a prison, an international health setting, or elsewhere—make every physician an advocate.

"Medicine is hardball today," he says. "The health care system has deteriorated to a point where it's no longer enough to be clinically competent. You can no longer assume that the platform on which you've always delivered care will continue to be there. You need to be prepared to help your patients address the challenges and barriers that affect their access to treatment."

Adds Rich: "Physicians have a unique perspective, as well as a position of power and authority. Whether it's calling an insurance company on a patient's behalf or pushing for policy change, we have the ability to advocate in ways that other people don't. It translates to a duty. If you can see that there's a problem, and you know how to fix it, you have to fix it."

Several new Medical School initiatives are helping students, residents, and faculty flex their advocacy muscles. Among them: the new scholarly concentration Advocacy and Activism, which brings students together with colleagues from the Rhode Island College School of Nursing, the University of Rhode Island School of Pharmacy, and Roger Williams University Law School to explore social issues that affect health status and to develop advocacy plans to address those issues. Pediatrician and advocate Patricia Flanagan serves as concentration director.

## "Medicine is hardball today. The health care system has deteriorated to a point where it's no longer enough to be clinically competent."

vate practice in northern Rhode Island, the Soros fellowship would support his deepening inquiry into the role of physicians in protecting their patients and advocating for human rights—and his advocacy on their behalf.

"Eight years working in corrections had sensitized me to the conflict, or dual loyalty, that military and correctional physicians

time frame, homicide was the leading cause of death in 43 cases, followed by enemy mortar attacks (36), natural causes (20), unknown (9), and accidental or natural causes (4).

Allen continues to work with Physicians for Human Rights in its inquiries into alleged mistreatment of detainees and its long-term psychological effects.



## THE INVISIBLE WOUNDS OF WAR

Report sheds light on long-term effects of "enhanced" interrogation techniques.

# What's worse:

the physical pain of injury, or the psychological pain of constant fear and humiliation?

A new joint report by the advocacy groups Physicians for Human Rights and Human Rights First, co-authored by Scott Allen, concludes that psychological harm may, in many cases, be more debilitating in the long term—and that the use of physical and emotional abuse in combination with one another "compounds their devastating psychological impact."

The report further concludes that those who inflict psychological pain through "enhanced" interrogation techniques, as confirmed but widely reported to be in use in the questioning of terrorism suspects, may risk criminal prosecution under the War Crimes Act, the U.S. Torture Act, and the Detainee Treatment Act of 2005.

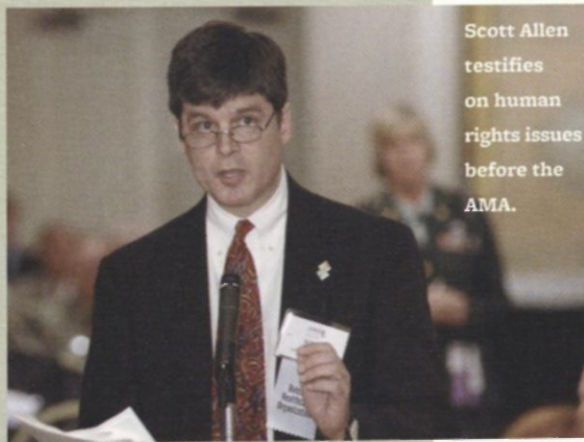
Titled "Leave No Marks: 'Enhanced' Interrogation Techniques and the Risk of Criminality" (the title references the techniques' purported design, which is to inflict psychological trauma and pain without leaving physical scars), the report comprehensively examines ten "enhanced" interrogation techniques ranging from simulated drowning to induced hypothermia. Over the course of an intensive six-month research project, the techniques were evaluated through medical and psychological literature reviews and through analysis by experts who have treated victims of torture and abuse in various settings.

"These techniques can cause severe and often irreversible harm," says Allen. "We've seen the effects over and over again, all over the world, in a number of different situations—PTSD (post-traumatic stress disorder), psychosis, substance abuse, suicide."

"Psychological trauma reverberates through the lives of its victims and down through generations," he adds. "Particularly in people suffering from PTSD—whether they were refugees or prisoners of war or survivors of childhood trauma or abuse—the effects are felt by their children and grandchildren as well."

The report calls upon the executive branch and the Congress to adopt a series of recommendations designed to clarify and prohibit harmful techniques and create "a single standard of humane treatment."

To view the full report, visit [www.physiciansforhumanrights.org](http://www.physiciansforhumanrights.org).



Scott Allen testifies on human rights issues before the AMA.

"Many of us have always seen our responsibility for our patients as extending beyond the office door," says Flanagan, who has practiced at Hasbro Children's Hospital for twenty years and founded its Teens and Tots Clinic for young moms and their babies. "The time has come for everyone in our profession to ask, What are my obligations to society?"

It's also time to fill the advocacy toolboxes of medical students, she says. "The faculty working in the advocacy concentration have sort of gathered these skills in an ad hoc way

over the course of their professional lives, and they're not necessarily skills that come naturally to physicians. Learning how to testify, or write an op-ed, or pick up the phone and talk to a reporter, is very different from learning physiology. The best way to learn advocacy is to watch someone do it."

This year, Flanagan is also leading a new required rotation in community

health for first-year pediatrics residents—a one-month curriculum, developed in partnership with Ready to Learn Providence, in which the residents will spend half a day learning from various community agencies and the other half working in daycare centers and libraries. At the end of the rotation, they will be required to write a mini-grant for funding from the American Academy of Pediatrics to address a specific issue or problem.

"It's important to develop your advocacy skills as early in your career as possible," she says, "and use them to make an impact." ■

*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.*



# The Hardest Word

Why doctors can't say { S O R R Y }

BY KRIS CAMBRA \* ILLUSTRATION BY JAMES YANG

It's a rule usually learned before kindergarten: If you do something wrong, say you're sorry. And mean it.

But in today's contentious medical malpractice environment, the rules of good behavior are thrown out when millions of dollars in legal fees, insurance payouts, and cash settlements are at stake. "Sorry" can be as incriminating as "I'm guilty" in a court of law.


Rhode Island physicians hoped that the state would join the twenty-seven others who have so-called "sorry laws" on the books. The law would have allowed physicians to apologize after adverse medical events without the fear that their "benevolent statements" would be entered as evidence of wrongdoing in a malpractice suit. The Rhode Island Medical Society (RIMS) pushed for introduction of the bill during the General Assembly's 2007 session, but the legislation died in committee.

Clinical Associate Professor of Surgery (Ophthalmology) Michael E. Migliori '79 MD'82, P'11 led the charge as chairman of the Medical Society's Public Laws Committee. He blames the bill's failure on the state's trial lawyers association, claiming they exerted control over the legislature, "stonewalling any attempt at liability reform."









In the end, the issue is about fairness—for the patients harmed, the doctors who may or may not have done anything wrong, and the rest of us who are suffering the consequences of a health care system imperiled by current malpractice law.

### { INSULT TO INJURY }

RIMS has been trying for years to improve the medical liability climate in Rhode Island, a state, Migliori says, where the laws are particularly unfair to doctors.

Malpractice insurance premiums have doubled over the past five years. While the number of claims hasn't gone up, the monetary awards have increased. It can take almost seven years before a claim is resolved, and the state's pre-judgment interest rate is 12 percent per year. That means once an award amount is determined, an additional 12 percent is tacked on for each year the case was in litigation.

RIMS wants to streamline the system. "If someone is injured they deserve to be compensated but it should be done quickly," Migliori says. "There's no reason why someone should have to wait that many years. And when a significant proportion goes to trial attorneys it's not hard to figure out why it's taking so long for things to get resolved."

But it's not money that motivates most patients to file suit. Many simply want answers about the case. According to Migliori, that's because once an adverse event or unanticipated outcome occurs, risk managers and insurance companies tell doctors "keep your mouth shut, don't say anything that can be used against you." Patients are left not knowing what happened to them, or why. Usually, another physician will speak to them about what happened, not the one who was initially caring for them.

"So the first advice is to break that trust that you've formed with the individual patient," Migliori says. "They trust you—there's a confidence. Then something goes wrong and you suddenly stop being the doctor you've been up to that point."

\* "In any other area if I make a mistake, I own up to it, but I can't do that when it's most important."

Understandably, that makes patients suspicious, and eventually, angry. They sue because they think the real facts of the case will come out in court.

"In any other area if I make a mistake, I own up to it, but I can't do that when it's most important," Migliori says.

### { HOSPITAL POLICY }

The Joint Commission (JCAHO) requires accredited hospitals to have a policy in place for the disclosure of "sentinel events," where there are unanticipated outcomes of care, to patients and to their family members when appropriate.

Joan Flynn, director of risk management for Lifespan, the health care system that oversees three of Alpert Medical School's affiliated hospitals, says the hospitals had a disclosure



policy long before the JCAHO requirement was put in place in 2001. Lifespan's policy incorporates not only the JCAHO guidelines, but also state law and the recommendations of the American Medical Association and other professional organizations.

She divides cases into two categories: errors where something clearly was done wrong, and so-called "gray areas" that are the result of reasonable clinical judgments that, in retrospect, may not have been the most effective and resulted in poor outcomes for the patient.

In either scenario, "From a risk management position, the best course is truth," she says.

Flynn cites a recent incident at Rhode Island Hospital where a procedure was done on the wrong side. (It's been reported that the error was recognized immediately, and surgery was then performed on the correct side. The man later died, and the state Department of Health is investigating whether the wrong side surgery played any role in his death.)

## \* In either scenario, "From a risk management position, the best course is truth."

"The resident involved in the case came to me and said 'Can I apologize to the family?'" she says. "And I said, 'Absolutely.'"

Flynn says that physicians often assume that they are not supposed to say they are sorry, and that's not true. Lifespan also encourages the treating physician to continue to work with the patient or the family. The hospitals are self-insured, but their malpractice insurance does not cover all physicians who have privileges at the hospitals. A physician might receive conflicting advice from his or her own insurer or attorney, which creates confusion as the doctor tries to respond to an incident.

"It's not in anyone's best interest to break the bond between the patient and the physician unless it is the patient's choice. The physician needs to be there for the patient," she adds.

While saying sorry is sometimes just "pure politeness," Flynn says full disclosure of a medical error is a critical piece of meeting the standard of care. Patients often have to make decisions about their care after the incident, and need complete information about the error in order to do that.

There's a difference, too, between "I'm sorry I did this" and "I'm sorry this happened to you." The latter is usually what a physician would say in a situation where an actual mistake did not occur, but the treatment did not work as planned.

"Patients often misunderstand the difference," Flynn says. And that's not surprising given the heightened anxiety anytime someone is in a health care setting. She recommends to doctors that when they must deliver bad news to a patient or family, they should be aware of the patient or family's ability to understand information. Doctors should also realize that patients will undoubtedly have questions, and should be available to answer them.

That's wise counsel. There's probably no greater risk for a lawsuit than a patient who feels abandoned.

## { THE RIGHT THING TO DO }

Doctors and hospitals don't really need a law on the books in order to apologize, says Doug Wojcieszak, founder of the



**Sorry Works! Coalition.** The national group advocates for disclosure policies as a means of reducing liability costs from medical errors.

"What drives medical malpractice is not the error. Patients can live with errors. Judges can understand errors. However, Americans do not understand cover-ups. Once you cover up and run away and play games with patients and families, that's what gets the med mal lawsuit going, the judges and juries fired up, and results in those eye-popping verdicts that you read about in newspapers," he says.

Sorry Works! recommends a three-step disclosure program. The first step is to go to the patient or family and tell them that "something happened, and we're going to investigate it," Wojcieszak explains. Then you offer to get them whatever it is they may need—a hotel, a clergy member, a ride home. "Be empathetic but don't admit fault, yet."

The second step is to do the investigation and determine if the standard of care was breached or not. Wojcieszak recommends doing that quickly and involving outside experts if possible. Most importantly, the hospital should stay in contact with the family while the investigation goes on.

The final step is the resolution. "If there was a mistake, you go in and say that we made a mistake," Wojcieszak says. "Tell them what you're going to do to prevent it from happening to another patient. And you discuss compensation, and that could be everything from writing a check, to waiving the bills, to another surgery."

Often, hospitals and physicians balk at that advice. "If it goes to court they'll kill me," they tell Wojcieszak.

"If you do all [the steps] and you get sued, under that circumstance you're going to go to court and tell the judge and jury you did the right thing. 'We tried to settle this fairly and we're sorry.' Plaintiff's attorney has nothing to say to that defense," he says.

Wojcieszak stresses that typical disclosure policies enacted by hospitals have little teeth unless they are part of a bigger program. And any policy that tries to withhold information from aggrieved patients in an attempt to indemnify against potential litigation can backfire.

While the Sorry Works! program advocates fair compensation for patients and families, Wojcieszak agrees with Migliori that it's about more than money.

"Overall patients and families who have experienced medical errors are an altruistic bunch. If you talk to enough families, they tell you they just want to make sure this isn't going to happen to anyone else," he says.

He should know. Wojcieszak's oldest brother died because of a medical error. After the incident, he says, the hospital "did the typical circle the wagons thing," and his parents had to endure a difficult two-year legal process that ended with them receiving payment, but finding little satisfaction.

### **{ MORE THAN WORDS }**

Lifespan's protocol is similar to what Wojcieszak advises. "It sometimes takes a fair amount of time to figure out what happened during the investigation," says Flynn, because there are often numerous staff members involved and people will remember what happened in different ways.

Because Lifespan is self-insured, it has more leeway in making attempts to compensate



patients. In one case, in which the patient required home care because of the error, the hospital paid for the services. Sometimes the hospital will make an offer of reparations, in an amount they deem appropriate for the harm caused, that is accepted by the patient without the involvement of attorneys.

"But in Rhode Island most people go to an attorney. They think if the hospital made the mistake there's no way they will be fair with you," Flynn says. "I tell people, do what you feel is right."

Attorneys were critical of Rhode Island's sorry law and portrayed it as being a means for doctors who are negligent to get off the hook. One Providence lawyer who handles malpractice suits, Steven Minicucci, told the Associated Press in April, "I like to call it the 'I'm-sorry-

## \* "I like to call it the 'I'm-sorry-I-killed-your-mother' bill."

I-killed-your-mother' bill. If a doctor comes out and says something like that, he shouldn't be able to immunize himself against statements like that by couching it in an apology."

Surprisingly, defense attorneys are not fond of the laws either. That's particularly true when hospitals use outside counsel for defending malpractice suits. Even unmeritorious suits rack up enormous bills for both sides just in responding to the claim and the discovery process. Nationwide, about two-thirds of cases are dismissed with no financial payments made. Flynn says Lifespan's numbers are in line with the national average.

Migliori stresses that the Rhode Island law was written conservatively, so that it clearly applied only to apologies and not admissions of guilt.

While apology laws can make doctors feel more comfortable about being honest after a medical error, the absence of a sorry law should not prevent hospitals from adopting disclosure programs, Wojcieszak says. "The University of Michigan hospital system has the biggest and most successful disclosure program. They cut lawsuits in half and cut legal expenses by \$2 to 3 million. And there's no apology law in Michigan.

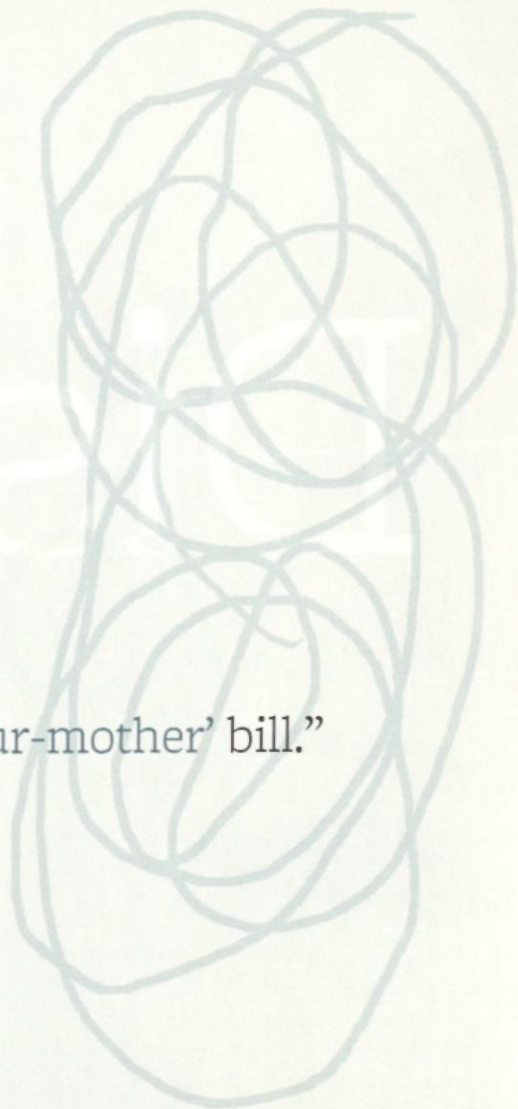
"I've asked them if they would like to have one. They said 'It can't hurt but we'd never use it.'"

### { THE NEED FOR ABSOLUTION }

A recent study published in the *Joint Commission Journal on Quality and Patient Safety* suggests that it's not just patients who are harmed by medical errors. The study found that physicians' job-related stress increased when they had been involved with a serious error. The survey of nearly 5,000 doctors in the U.S. and Canada revealed that physicians were more likely to be distressed after serious errors when they were dissatisfied with error disclosure to patients.

Migliori says RIMS will continue to advocate for a sorry law in the state, noting that it's typical for an issue to come up several times in the legislature before it is enacted.

"It would be nice certainly if there were fewer suits and that's a secondary motivation," he says. "But the primary motivation is preserving the trust."







# Disarming

Welcome to the world of tomorrow's doctors.

In her memoir, *BODY OF WORK: Meditations on Mortality from the Human Anatomy Lab*, poet, psychiatrist-in-training, and frequent *Brown Medicine* contributor Christine Montross elegantly parallels her first year of medical education with her dissection of a human cadaver. With limpid prose and startling analogies she conveys with equal skill the textures and functions of tissue and bone, the fascinating history of dissection, the ineffable emotions that accompany each cut, and the body's—and the profession's—inherent contradictions: resilience and fragility, efficiency and grace.



BY CHRISTINE MONTROSS MD'06

# Intimacy

...there we found a rich supply of bones,

which we examined indefatigably...until...blindfolded, we could identify by touch alone any bone which [our fellow students] pulled from the piles...and handed to us. We were forced to these lengths because, though eager to learn, we had no teachers to assist us in this aspect of medicine.

—Vesalius, on studying at  
the Cemetery of the Innocents in Paris,

ON THE FABRIC OF THE HUMAN BODY

## CHAPTER I: BONE BOX

The syllabus says, "Week One—5 p.m. Pick up bone boxes." The anatomy lab is empty, and yet it's just 18 hours or so before our class. The cadavers have been prepared for months, if not longer, and as we will learn early in the term, their formalin embalming would permit them to sit at room temperature for as many as twenty years without the

slightest trace of rot. They could be lying here awaiting our morning dissection, but the faculty is administering this intimacy with death in small doses. The absence of dissecting tables and bodies allows us to resume our social banter, to continue to introduce ourselves to one another before we undertake our strange new trade in the morning. Since the semester has not yet offi-

cially begun, it is the first day that we have all formally gathered, and we've come straight from an afternoon barbecue on a university playing field. Though many of my classmates know one another from their undergraduate years, I am meeting almost all sixty-some of them for the first time. Our conversations are friendly, a jumble of small talk about how we've all just moved and are



still unpacking our belongings, polite questions about what we were each doing before medical school and what fields of medicine we think we might pursue. *My partner Deborah and I were both teaching high school*

*ing, This used to be a person. I am carrying parts of a person in this box, and no one knows it. On the street, girls compliment one another's shoes, and a man in his twenties sings Dylan on the curb for quarters. When I*

During the entire walk, I am thinking, *This used to be a person. I am carrying parts of a person in this box, and no one knows it.*

*kids in California, I say, over and over. I repeat the same joke: So I'm obviously interested in psychiatry.*

Our talk is frivolous, but I'm aware that this moment is the real beginning of what will be four grueling years of work and study. Deborah and I moved across the country for this day. (*Not only have I never been to Rhode Island, I said in a moment of uncertainty after the decision had been made, I don't even know anyone who's ever been to Rhode Island.*) And yet here I am, with my new classmates, in an otherwise empty human anatomy lab.

We form a line, pose for Polaroid photographs that will help the professors associate our names with our faces. After the pictures we each pick up a wooden, handled box a little larger than a briefcase. The box has my name imprinted on a label by the handle. It is the kind of box that, in an academic community like ours, would be assumed to hold a telescope, or microscope, or collection of fragile documents. It will hardly be noticed, I discover, as I walk down the main drag of campus, past the falafel joint, the copy shop, and the Starbucks, carrying two-thirds of a human skeleton.

The box bumps against my leg as I take it to my car. During the entire walk, I am think-

ing, *This used to be a person. I am carrying parts of a person in this box, and no one knows it.* reach the trunk, I hesitate for a minute and wonder if I should put the box on the seat beside me instead, and then decide I am being ridiculous. I do not look at the box again until I have been home for over an hour, have unpacked my weighty new books and arranged them on my shelves. I do not look until there seems nothing left to do but unfasten the clasps and lift the lid.

Inside is a whole skull, at once eerie and beautiful. On close inspection the individual bones of the skull are visible, and their lines are fluid and lovely—the winging curl of the zygomatic bone that can be traced from the cheekbone to the ear, the bony hinge of jaw, the whorled external acoustic meatus, through which sounds travel to our brains. The lower jaw, or mandible, is held in place by small wire springs and screws and can therefore be carefully opened and closed. The top of the skull has been sawed off and reattached with removable fasteners to allow study of the internal cavities and structures of the head.

Incomprehensibly, there are twenty-eight bones in the skull alone. I will learn that there are fourteen bones which form the face, six auditory ossicles—the bones of the ear—and eight bones of the cranium, the

“vault of the brain.” The bones join together at irregular lines called sutures, and the look of them is half that of sewn fabric, as the name implies, and half plate tectonics; the ragged and uneven lines imply an ancient and irreversible joining. When I unhinge the top and look inside, the landscape is not the glorified basin I had imagined—it is lunar, with deep pits and sharp protuberances. Symmetric sets of holes mark tunnels through which nerves and arteries once traveled, carrying signals and sustenance. At the base is the foramen magnum, literally “big hole,” where the brain stem and spinal cord emerge from the brain to run down the body.

The skull has a full set of teeth, and one of the incisors had been crowned, as I can see from the whittled shape. *I think, Someone kissed this mouth; someone touched this chin in love.*

I lift from the box one of each of the bones in the arm—humerus, radius, ulna—and one of each of the bones in the leg—femur, tibia, fibula. I hold in my palm the bones of one hand, then the bones of one foot. My skeleton is male, I am sure. The bones and feet and hands are long. If you fit the bones together, you learn the size this man was. At the elbow the radius and ulna meet the humerus in perfect, well-worn curves and grooves. I hold the three bones in place in a straight line, then bend them at the joint. When I do this, I am unnerved and put the bones down on the floor. The movement is utterly human. Unquestionably so. I look at them, now separated on my carpet, and think, Bones, just bones. I pick them up, join them again, raise the lower arm from where the wrist would be toward the absent shoulder, and they are not bones, they are an arm. The proportions are exact, of course, the movement something I have never noticed or defined before, but something I innately know—the movement that a human arm makes. The flex, the bend and swing, the slight inward turn toward the body, even when straightened and at rest.



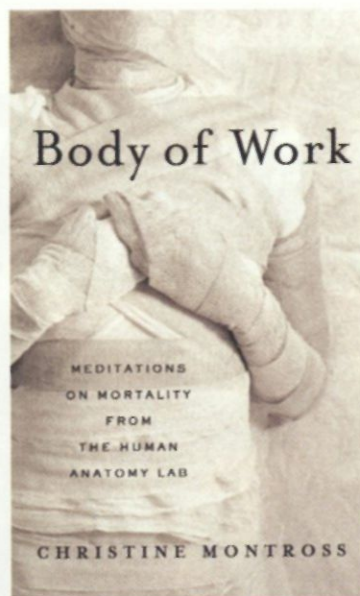
A whole spinal column lies in the box beside the skull, each vertebra strung with fishing line in its proper order to form a string of bones. When held aloft they form a skeletal silhouette of this person's back. The column strikes me as prehistoric-looking, reminiscent of the bones of large fish that hang in natural-history museums. At first the vertebrae look identical, a stack of round disks, their bony prominences fitting neatly into one another. But in fact the shape of each vertebra differs slightly from those above and below it, and to run the eye down the full column is a bit like watching a time-lapse film of a budding flower or a developing fetus, a gradual metamorphosis from one distinct shape into another.

A single hip bone sits to one side. The bone is odd and asymmetrical alone, only half of the pelvis, unable to form the perfect bowl that holds the entrails. Yet it is elegant

shape barely alludes to the way it firmly roots the shoulder muscles and the upper arm.

Beneath all of these in the box is the patella, or kneecap, a large, misshapen lentil which has the singular distinction of being a sesamoid bone—a bone formed in response to shear forces within the tendon which surrounds it.

The bones of the hand and foot are also held together by fishing line to show how they “articulate” or join. The number of small bones in the hands and feet exceeds all the rest in the body combined, and the names, I



about those which are less self-evident. Perhaps the hook of the hamate, a protuberance of one of the hand bones, dates back to the stigmatized descendants of Ham in the Bible; perhaps the styloid process, a bump in the wrist, denotes the exact spot where stylish women wear bracelets. Learning the nomenclature will become a vast game of memory. And as I sit on the couch with these bones whose

names I do not know, all I think is that, of everything beside me, the teeth are what make the body seem the most real.

Stacked beside me on my sage green couch: this spinal column which wraps into a coil without muscle to hold it upright, hands and feet held together with floss, this skull hinged and empty. A man's teeth.

I stand, and with my right hand, I hold the knobby end of the skeleton's femur at my left hip. With my left hand, I join the tibia to the femur where the knee cartilage would have been. I am comparing his body to my own tall form. His legs are shorter than mine. His ribs too narrowly curved to wrap around me. I hold the threaded bones of his left foot against my right sole. Our feet are the same size.

Here is what I will learn: the most alarming moments of anatomy are not the bizarre, the unknown. They are the familiar.

**Christine Montross MD'06** is in her first year of psychiatry residency training at Alpert Medical School.

EXCERPTED FROM BODY OF WORK: MEDITATIONS ON MORTALITY FROM THE HUMAN ANATOMY LAB BY CHRISTINE MONTROSS. REPRINTED BY ARRANGEMENT WITH THE PENGUIN PRESS, A MEMBER OF PENGUIN GROUP (USA), INC. COPYRIGHT (C) JUNE 2007.

The spinal column strikes me as prehistoric-looking, reminiscent of the bones of large fish that hang in natural-history museums.

and curving and alien. Its inner lines rise and flare and become its outer edges, like the bloom of a calla lily. A fistful of ribs nestle, curved into one another, and they look thin and fragile and almost translucent. The final two bones in the box are responsible for some of the most striking bodily shapes: the clavicle and the scapula. The clavicle is a nondescript bone the size of a thick pen, and it is hard to imagine that it traces the insistent line reaching from a woman's throat out to her shoulder. The scapula, or shoulder blade, is wing-like and twisting. Its graceful

will learn, are lovely and evocative: distal phalanx, capitate, scaphoid, triquetral, hook of the hamate. Some etymologies seem comprehensible: The lunate is moon-shaped if you squint a little; *pisiform* means “pea-shaped” in Latin. But as the semester wears on and we peer through flesh at these little bones, look at them on black-and-grey transparent sheets of imaging, hold these bone hands in our own hands and memorize the shapes and names and the muscles that move them, we will hypothesize and confabulate, in seriousness and utter lack thereof,



BY SHARON TREGASKIS

# A New Age

PHOTOGRAPHY BY KAREN PHILIPPI

*A worst-case scenario for geriatric health care is looming, and Alpert Medical School is training doctors to take on what will be an unprecedented burden of care.*

**AS A KID, REBECCA STARR** thought of growing old the way her extended family did: by continuing to do all the best things about being a grownup—going out dancing, enjoying the occasional cocktail, having a good time. Into her nineties, Starr's grandmother lived in her own home, taught aerobics, wore leather pants, lived a rich, full life. When Starr finished college, she worked as a high-end chef in San Francisco and lived with a great aunt in her late eighties who taught yoga three times each week and took safari vacations.

## PORTRAITS OF AN AGE

Leonard and Ruth Rotenberg prepare to play a game of cards on the deck of a friend's cabana on Narragansett Beach.









Pat Page enjoys water aerobics at least three days a week at her local YMCA.

It wasn't until several years later, when Starr started her MD at SUNY Downstate and went on hospital rotations in metro New York that she saw how differently most of the country ages. "I didn't know old people were supposed to be inactive," she says. "My grandparents never were in hospitals or nursing homes. The contrast was so interesting—how some people could be in good shape, healthy, vibrant, while others are in and out of hospitals."

Now a fellow in geriatric medicine at Alpert Medical School, Starr (HS'07) spent the month of July at Providence's Butler

him, and an eighty-five-year-old woman awaiting placement in a local nursing home's dementia unit. By nine a.m., a cadre of psychiatrists, nurses, social workers, and physical and occupational therapists had gathered—along with the unit's fluffy therapy dog—to discuss each of the sixteen patients on the locked, twenty-bed unit.

Diagnoses and prognoses took only a fraction of their time. Most of the discussion centered on other issues—balancing patient needs with those of their caregivers, accessibility of beds in local nursing homes, Medicare and state regulations, and strategies for

people's ability to live independently. "There are so many reasons not to be in a nursing home."

#### A TSUNAMI OF DEMAND

Last year, the first of the Baby Boomers celebrated their sixtieth birthdays. Nationwide, just 12 percent of the U.S. population has passed age sixty-five. By 2040, however, Americans over the age of sixty-five will comprise more than 20 percent of the population—and as they have throughout their lives, Baby Boomers are turning on end not only the rules followed by generations before them, but the entire nation's policies and provisions. Geriatricians have been saying for decades that their own ranks weren't swelling fast enough to keep pace with the tsunami of health care demand the Boomers will create. Now Americans across the spectrum are coming to terms with the implications of that looming reality.

"As bad as the MD situation is, I think it's equally bad for nursing, social work, nurse practitioners, physician assistants, and nursing assistants," says Professor of Medicine and Family Medicine John Murphy, president-

*"There are so many reasons not to be  
in a nursing home."*

Hospital, on a geriatric psych rotation. On a sunny Tuesday morning near the end of the month, she made her rounds, checking in with a sixty-seven-year-old woman whose schizophrenia meds needed fine-tuning, a man of the same age with early-onset dementia whose decade-long physical decline had finally exceeded his wife's capacity to care for

helping families come to terms with a patient's changing circumstances. "My interest and love is to keep people as healthy as possible," says Starr, who hopes to balance a multidisciplinary geriatric practice including social workers, nutritionists, and therapists, with teaching duties and research on the risk factors that compromise older



elect of the American Geriatric Society. "We're not going to be able to train enough geriatricians to care for this huge onslaught of older people who are coming down the pike. It just won't happen." Instead, Murphy advocates broader exposure to geriatrics for all physicians, with board-certified experts in the field providing leadership in research and in public policy debates aimed at increasing the efficacy of every dollar spent on health care across the lifespan.

"The future is upon us," says Richard W. Besdine, David S. Greer, MD, Professor of Geriatric Medicine and director of Brown's Center for Gerontology and Health Care Research. "The medical students I taught this year will start residency training six months before the first boomer turns sixty-five. In the succeeding twenty-eight years, almost seventy-five million people will enter the Medicare rolls. And they're hardly dying at all. The burden of care and the resource utilization they carry with them is of a magnitude that if we don't change fundamentally the way we take care of these new Medicare beneficiaries, the bank will be broken."

Last June, Besdine became principal investigator on a \$2 million grant from the Donald W. Reynolds Foundation's Aging and Quality of Life program to infuse the Alpert Medical School's curriculum, as well as resident and fellow training programs, with content on aging. The goal: prepare every student to face the realities of health care for an aging population. Few will become geriatricians. But every one of them—even the pediatricians, who will see a growing number of patients tended by grandparents—will encounter the aged in their practices.

"It will always be the case that most care for older people will be delivered by physicians who don't have a specialty in geriatrics," says gerontologist and Associate Dean of Medicine for Public Health Terrie "Fox" Wetle, a member of the team evaluating the Medical School's implementation of the

## A Good Ending

*The drive to make death tolerable and dignified.*

**OSCAR SENSES** when the end is near. In his two years on the advanced dementia unit at the Steere House Nursing Home in Providence, he has attended more than two dozen deaths, offering comfort and companionship in the waning hours of life. But there are limits to Oscar's efforts. He is, after all, a cat.

Oscar made headlines worldwide in late July, after the *New England Journal of Medicine* published an article about him by geriatrician David Dosa, illustrated by a portrait of the cat shot by geriatrician and amateur photographer Joan Teno.

Newspapers dubbed the fluffy feline "the kitten of death" and "the grim reaper-purr," and speculated about precisely how the cat senses the end. They missed the point says Teno, a professor of community health and associate director of Brown's Center for Gerontology and Health Care Research, who studies quality in end-of-life health care, pain management, and the role of public policy. Increasingly, Americans breathe their last in a nursing home.

In an era of growing nursing shortages, who will attend our deaths—or will we die alone? "There's this myth about what is a good death," says Teno, who coordinates the hospice rotation experience for Alpert medical students, residents, and fellows. "To tell you the truth, it's a tolerable death, because nobody, in terms of losing someone they love and care for, can say that a death is really good. But it's at least dignified...tolerable. You at least help people make that transition."

Key to making the transition, says Teno, is a commitment from the team providing care to understand and pursue each patient's goals—whether that means supporting a patient's capacity to direct treatment decisions or coaching a spouse that it's time to let go of a partner for whom further care would be futile.

Increasingly, she says, Americans will have to grapple with the realities of death as a coda to chronic, progressive diseases. "It's no longer a question of whether you're going to withhold life-sustaining treatment," she notes. "It's when you're going to withhold life-sustaining treatment." And that means physicians will increasingly find themselves guiding families through a shift in emphasis from interventions that prolong life to a focus on care that comforts, even if it shortens life.

"The full philosophy of patient-centered care is what we should be doing in our health care system," says the professor, whose interest in quality end-of-life care began at the age of twenty-three, when she attended her grandmother's death at home, surrounded by family. "From diagnosis to treatment to the final stages of disease or a cure, we need to be developing systems around the needs of patients, not around the needs of the institution."

Even after decades and more deaths than Teno can count, the emotions can be intense. "There are some people I come very close to and it can be hard," she admits. "As a practitioner, I need to be present in the moment, but I can't take that home." Even so, she says, "There are some people who make such a big impression on you and they live with you forever."



Reynolds grant. "We really need to figure out ways for doctors to receive the information and training in evidence-based knowledge they need to appropriately care for older people. When they learn about the eye, for example, they also need to learn about the aging eye and how we consider the whole geri-

to guide faculty integrating his findings into their lectures. Classmate Ian Buchanan focused on the role of transitions in health care, such as the hand-off from internist to hospital to nursing home, crafting an online, interactive module to complement the third-year medical clerkship.

*"Most care for older people will be delivered by physicians who don't have a specialty in geriatrics."*

atric patient with their multiple co-morbidities and poly-pharmacy and all the rest."

That's precisely the point of the Reynolds grant: exposing students to the holistic mindset of a geriatrician, dedicated to preserving a patient's independence and overall quality of life. At Alpert Medical School, the effort has been both broad and deep. Geriatrics faculty reviewed syllabi for every course in the first two years of the curriculum, met with course directors and section leaders, generated new aging-related content, and even supplied multiple-choice exam questions to facilitate incorporation of the new material. (Example: Q: What changes in cardiovascular function occur as a normal part of aging? A: Pulse pressure and systolic pressure increase as a result of stiffening of the arterial walls.)

A cross-disciplinary scholarly concentration program, developed by Associate Dean for Medical Education Philip A. Gruppuso and colleagues, invites students to pursue an independent research project spanning all four years of their training. Six first-year students chose the aging option in its inaugural year, including geriatrician-in-training Difu Wu MD'10, who spent his summer identifying aging-specific content in the brain sciences course—thinning of the retinal nerve fiber layer, increasing the risk for glaucoma, for example—and compiling a bibliography

Says Buchanan: "I saw this summer project as a way to gain experience with medical education and curriculum design, as well as immerse myself in a topic I really had no experience in." Gruppuso sees an added bonus: "I think we're going to wind up with a curriculum on aging that will be different from almost any other medical school in the country."

## THE SEARCH FOR CLUES

In stainless-steel clad laboratories a brisk walk from the huge Victorian building that houses the Center for Gerontology, where Buchanan spent his summer, Associate Professor of Biology Marc Tatar and molecular geneticist Stephen Helfand, a professor in the Department of Molecular Biology, Cell Biology and Biochemistry, delve into the fundamental mechanisms of aging. Using vast fruit fly populations to determine how genes and hormones shape biological change over time, they are documenting the features associated with longer lifespan.

Make no mistake: neither fancies himself on a Ponce de León-style quest for the Fountain of Youth. Rather, the biology of aging remains one of the final, unexplored frontiers of biology, and understanding how it works just might provide insights to healthier aging.

"Presumably, once we understand the processes that regulate aging, and if we can manipulate those, then we'll end up improv-

ing the health-span of the animal, and not just its lifespan," says Tatar.

Key to asking the right questions in the lab, says Helfand, is getting a handle on the theoretical relevance of aging. Is aging a normal biological function? Is it random or ordered? Passive or active? Some species within the same phyla have vastly different lifespans. The Canada goose lives an average of more than twenty-three years, while the emperor goose typically lasts only a season beyond its sixth year. Even within the same species, Helfand notes, lifespans vary enormously—among honeybees, for example, queens live a year or more, but workers born in the spring and summer mark only a few weeks. "Aging is a theoretical morass, complicated, and everyone understands something different with the word," says Helfand, who investigates the genetic patterns associated with lifespan in *Drosophila melanogaster*. "We're developing a foundation for how to look at things that change with age, and using things that change with age as a tool for understanding the mechanisms that cause those changes."

## POLITICAL REALITIES

Meanwhile, Richard J. Goldberg, professor and chief of psychiatry at Rhode Island Hospital and head of the American Association of Geriatric Psychiatry's fellowship committee, is trying to figure out how to improve continuity of care for patients bouncing from home to hospital to nursing home and back again. "For physicians in geriatric psychiatry, Medicare is everything," he says. Yet Medicare reimburses only 50 percent of costs associated with psychiatric diagnoses (other diagnoses garner an 80 percent reimbursement rate), and neither insurance companies nor the government pay for the hours health care professionals invest reviewing the dense medical histories of older patients, collaborating to coordinate holistic care, or counseling caregivers.



"If you want to spend time on the phone with the primary care doctor and the visiting nurse trying to make a treatment plan, you don't get paid for that," says Goldberg. "Aside from fixing the lack of parity, the payers have to look at what services really are needed—like coordinating care: talking with the visiting nurse and the primary care doctor together, in one room, about what are we going to do with this patient, and having someone pay for that meeting with a care coordinating billing code. That would make a huge difference."

At least one national health insurance firm sees the merits in the geriatric psychiatrist's argument—not because they're concerned about the livelihood of physicians, but because they stand to save millions through reduced hospitalizations. Says Goldberg: "You don't always have to hospitalize patients if you can sit with the nurse and the medical director of the nursing home, and actually put together a

plan where you teach each other about how to care jointly for the patient. If that were paid for, often you could manage health care in that setting, without having to say, 'I give up. Send that person to the hospital and they'll straighten it out there.'"

In August, Rebecca Starr wrapped up her geriatric psych responsibilities at Butler and turned her attention to rehab on the second rotation of her year-long fellowship. She's still weighing whether to tack on another year of training or pursue a master's in public health before launching her career. She hasn't let the prospect of hefty loans deter her from pursuing her dreams thus far, but with \$200,000 in debt from medical school, she's already grappling with questions about how she'll make a living.

Goldberg, Murphy, and Besdine—with close to a century of geriatric practice among them—say the prospects aren't great. Murphy's geriatric practice is closed to new

patients. And even though he has as many patients as he can handle, like Goldberg and Besdine, he counts on teaching and research and administrative roles—not his work with patients—to supply his salary. "Basically, my hope is to break even on my clinical practice," he says. "It's very difficult to do much more than that." Already in their late fifties and sixties, all three physicians say without fundamental transformations to the nation's health care system—including universal coverage and a single payer system—it's tough to imagine recruiting young geriatricians to the field in the volume in which they're needed.

"It's scary," says Starr. "I'm not sure what the solution is. This has always been my passion."

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

Ernest Philippi, a WWII veteran and self-taught mechanic, skips rocks at Kluane Lake in Alaska. Philippi is the photographer's grandfather.

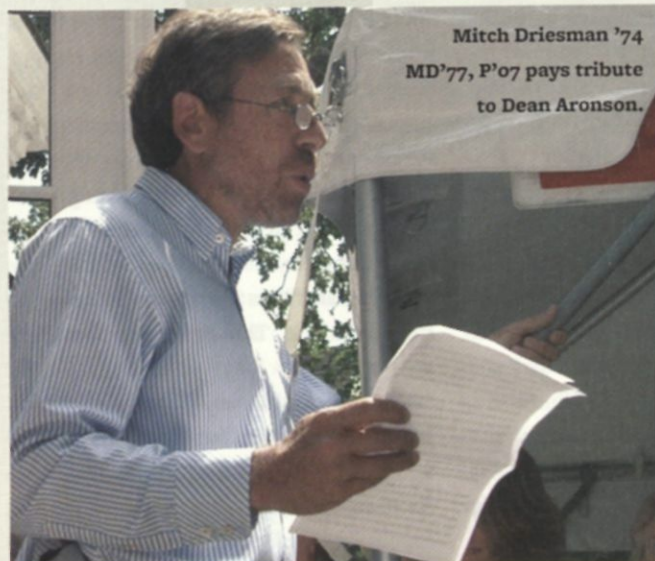




## No Stopping Us Now

Brown Medical Annual Fund continues to climb.

BY KRIS CAMBRA



**L**eaps and bounds. That's the best way to describe the growth of the Brown Medical Annual Fund (BMAF) which closed for the 2007 fiscal year on June 30 with gifts totaling \$721,000—a record high for the ten-year-old Fund. That's 13 percent over last year, and 32 percent over the 2005 total.

Parent participation in giving took a giant step forward this year to meet a challenge put forth by two parent donor couples. They pledged that if 42 percent of medical parents gave to the BMAF, they would combine their support and contribute \$25,000. Parents answered the call, reaching 46 percent. One of the donor couples was so impressed with the results that they have offered the same challenge this year with a goal of 50 percent participation.

Another boost came from the MD Class of 1977, which celebrated its thirtieth reunion in May. The dedicated Class Representatives, Mark Haffenreffer '73 MD'77 and Mitchell Driesman '74 MD'77, P'07, were instrumental in organizing this initiative. This class made its gift in honor of Dean Emeritus Stanley M. Aronson, revealing the tribute at a luncheon held at the Aronsons' home over Reunion Weekend. The cumulative gift, a record-breaking \$76,601, was

directed toward medical education and funded the first-year small group sessions of the Doctoring course. An essential part of the redesigned medical curriculum, the Doctoring course teaches first- and second-year students medical interviewing and communication skills. Students spend one afternoon per week in the office of a physician mentor, which gives them early exposure to patient care and to positive physician role models. The gift supports the classroom-based portion of the course, where students interact in their small groups with faculty facilitators.

### EACH AND EVERY YEAR

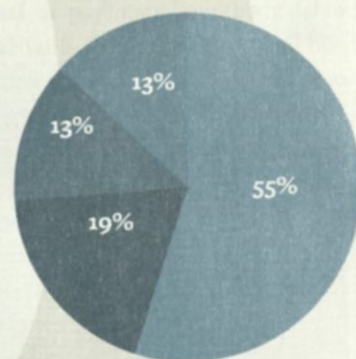
**Giving to the BMAF for fiscal year 2008** has already begun. This year, the funds will be allocated differently, with a higher portion—55 percent—supporting medical student scholarships. That's critical, since the need for student financial aid is increasing exponentially every year.

"Our entering classes demonstrate consistently higher levels of financial need, beyond what we had anticipated when we instituted our need-blind admission policy," says Director of Admissions and Financial Aid Kathleen Baer, "and that's without accounting for the impact of the larger class sizes."

The remaining 45 percent will support medical education and will be divided among the Doctoring course, the new Scholarly Concentrations Program, and ongoing curriculum development.

The goal each year inches higher—\$760,000 for 2008. By the end of the Campaign for Academic Enrichment, the Brown Medical Annual Fund is projected to top \$1 million.

**BROWN MEDICAL ANNUAL FUND**  
Allocation FY08

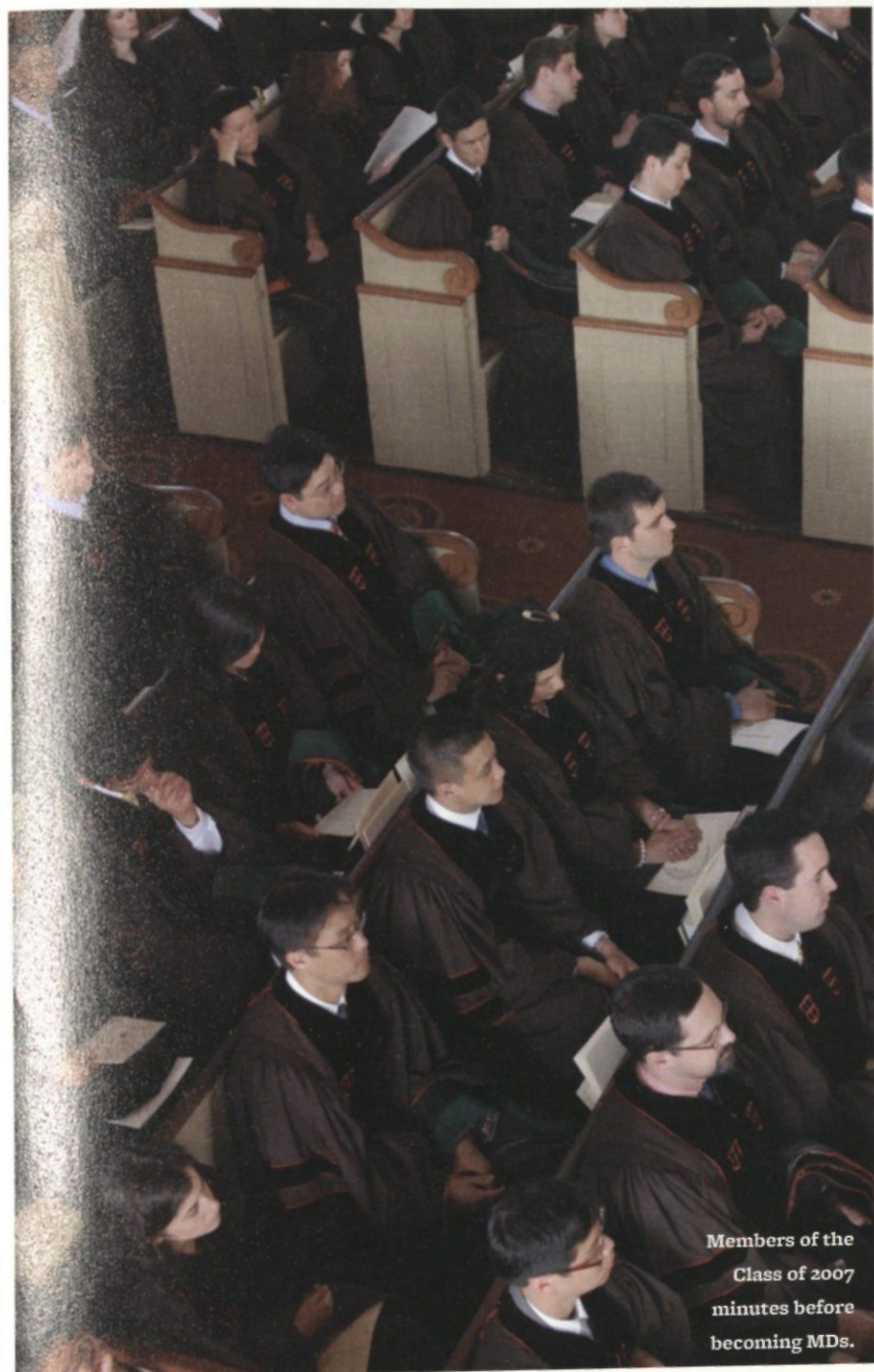


Scholarship .....	\$412,500
Doctoring Course .....	\$137,500
Curriculum Development .....	\$100,000
Scholarly Concentrations .....	\$100,000



# ALUMNI ALBUM

CHECKING IN WITH BROWN MEDICAL ALUMNI



Members of the Class of 2007 minutes before becoming MDs.

## CLASSNOTES

### 1975

**Glenn W. Mitchell** '67 SCM '69 has completed service at the Navajo Indian Reservation in Arizona and is now starting a safety center for Mercy Health System in Missouri.

**Valerie Parisi** '72 has been appointed vice dean for hospital relations and clinical affairs at Wayne State University School of Medicine as well as senior advisor to the chairman at University Physician Group in Detroit, MI.

**Edwin L. Zalneraitis** is pediatric residency program director and assistant dean for clinical education at the University of Connecticut School of Medicine. He can be reached at [ezalner@ccmckids.org](mailto:ezalner@ccmckids.org).

### 1977

**Claudia B. Gruss** '74 is chair of the Fairfield County Medical Association Board of Trustees. She practices gastroenterology and internal medicine in Georgetown, Norwalk, and Wilton, CT, and is an attending physician at Norwalk Hospital. Claudia is councilor to the Connecticut State Medical Society, and also a board member of the Women's Medical Association of Fairfield County.

**William Kaplan** '69 reports that he recently began a program for psychiatry and the law at the Long Island Jewish/North Shore Medical Center in NY.

### WE HAVE JUST ONE QUESTION FOR YOU

#### 'Sup?

Take a moment to contact us at [med.brown.edu/alumni/](http://med.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](mailto:Med_Alum@brown.edu).



# ALUMNI ALBUM

## 1978

**Morris Birnbaum '73 PhD'77**, professor of medicine and cell and developmental biology at the University of Pennsylvania, is lead author of a study that has demonstrated a link between insulin and the control of fat metabolism. The study results, published in the online edition of *Nature*, point to a potential new drug target for treating type 2 diabetes.

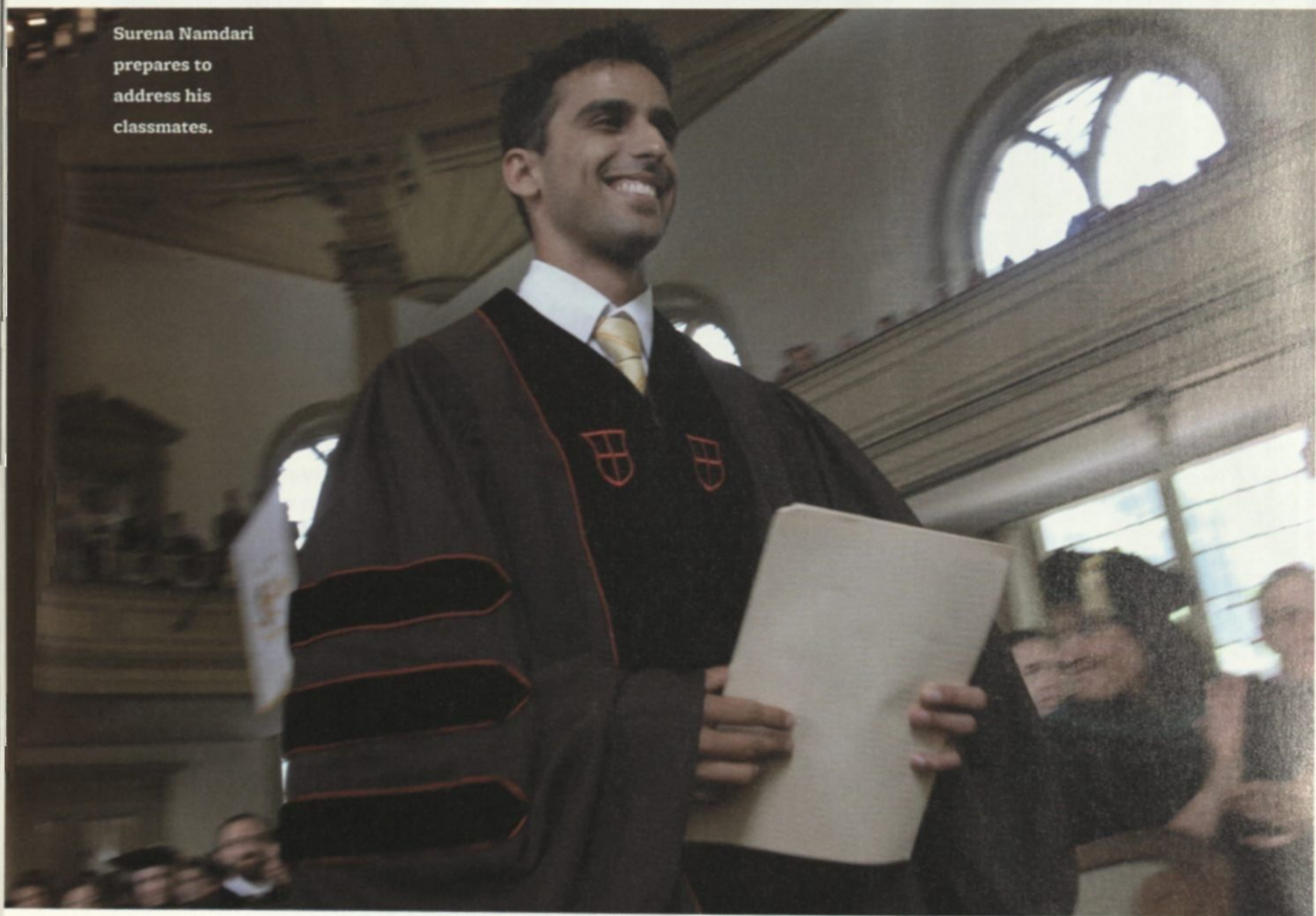
**Paul Broomfield '75** is in private practice at Western Suffolk Gastroenterology Associates in Bay Shore, NY. He can be reached at [Broomski@aol.com](mailto:Broomski@aol.com).



Ruth Sauber greets a friend at the lecture that bears her name.

**Morris Birnbaum '73 PhD'77** is lead author of a study that has demonstrated a **link between insulin** and the **control of fat** metabolism.

Surena Namdari prepares to address his classmates.



MARY BETH MEERMAN (2)