

BROWN MEDICINE

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“We knew that even while we were talking, *African Americans* in emergency rooms *were not receiving* adequate analgesics, *women* brought into hospitals with heart attacks were *dying* because of disparities in treatment, and *Spanish-speaking Americans* were *struggling* to figure out when and how they should take their diabetes medications.”

PLUS:

What They
Will Miss

God's Work

LETTER

FROM THE DEAN

It's All Good

After a long and cold winter spring has finally arrived at Brown. There is no better place to be than on the Green among eager students, trees and flowers in bloom, and Commencement just around the corner. The only better place could have been at this year's Match Day, for our medical students. Our students are highly sought after by training programs. Most students got their number one choice, and more students than last year are staying in Rhode Island. There was also an increase in those electing to go into

primary care; this is consistent with a national increase of 11 percent. The results of the Match can be found in this issue.

We were honored to have Gus White speak at a forum on campus recently. Dr. White, the Ellen and Melvin Gordon Distinguished Professor of Medical Education and professor of orthopedic surgery at Harvard Medical School, is a proud Brown alumnus and a scientist who has distinguished himself on several fronts, most notably in orthopedics. He is also passionate about health care and the disparities that exist in the US today. His passion is captured in his book excerpt in this issue.

The rankings of Alpert Medical School in the latest *US News & World Report* improved this year over last year, from 32 to 29 in Research and from 49 to 28 in Primary Care. The Research category ranking is driven by academic reputation (the opinion of our peers), NIH funding, the quality of the student body, and the faculty-to-student ratio. The Primary Care category is driven mostly by reputation and the percentage of graduating seniors who enter primary care disciplines. While very pleased, I am also wary of the subjective nature of these rankings and their variability from year to year. Looming in the future are plans to declare a School of Public Health and the effect it would have on the Medical School's ranking. It is gratifying, however, to see our School consistently in the top one quarter of medical schools, and improving.

Edward J. Wing

PETER GOLDBERG



26



30



16

“Many say being here is harder than jail, because in jail you don’t have to look at yourself.” —Michael Tso, Page 36

INSIDE

26 Match Madness

Members of the MD Class of 2011 find out where they will be going for residency.

SPECIAL SECTION

Climate Change

BY KRIS CAMBRA

It ain’t easy being green, especially when renovating an 83-year-old structure, but engineers have worked hard to make the new Alpert Medical School building as environmentally friendly as possible.

30 Medicine Avenue

BY SARAH BALDWIN-BENEICH

A family medicine doc finds community and purpose on a New Hampshire mountainside.

38 Parting Glances

What will you miss most when you graduate from Alpert Medical School?

40 As I See It

COVER STORY

For Brown alumnus and orthopedic surgeon Augustus White III, MD, humanitarian medicine is egalitarian medicine. An excerpt from his book.

DEPARTMENTS

InBox	3
The Beat	4
HIV test SEA students Circumcising the globe Campaign closure	
Zoom	16
A teacher by vocation.	
From the Collections	19
Ophthalmology books worth a look.	
Field Notes	20
Real big fish.	
Essay	22
A portrait of John Dix Fisher ’20.	
Resident Expert	25
Reliable narrator.	
Momentum	44
Honor thy daughter.	
Alumni Album	45
Handy man Class Notes	
Obituaries	52
A tribute to faculty.	

Cover: From *Seeing Patients*

Unbiased Source

A million years ago in college, in a reading assignment for a course on critical theory—the text was by Dworkin or Brownmiller, I think—I was struck by the notion of the invisibility of sexism. It had never occurred to me that the mere prevalence of bias was to some degree a cause of its intractability. It was a chilling thought. How can you reverse something that people either don't see, or don't see as unnatural?

The same is true of most isms and biases, of course, and while it's heartbreaking that we are still talking about unequal treatment of minorities and women, it's also heartening to know that someone as eloquent and engaging as Dr. Augustus White is advocating for change in a field that arguably touches everyone. White and his co-author, David Chanoff, have written a quietly but deeply persuasive case first for seeing, and then for eliminating, bias in the medical profession. Their book, of which you can read an excerpt in this issue, is a thorough and thoroughly readable examination of the sometimes unwittingly inequitable handling different groups receive, and the unequal health outcomes that result. It is also the amazing and quite humbling story of one man's life.



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INBOX

HE'S THE MAN

Reading the article “Larger Than Life” (Winter 2011), I was reminded of my days as a medical student rotating on the orthopaedic service at Brown. The article made no mention of the medical students who were also significantly influenced by Dr. Ehrlich. As a third-year student I thought that perhaps I was interested in orthopaedics. I rotated on the service and was immediately impressed with the residents’ work ethic and caring for patients. I returned as a sub-intern convinced this was what I wanted to do and who I wanted to become. Dr. Ehrlich’s influence on the residents was clear.

At the daily breakfast with the chair, Dr. Ehrlich would lecture on a topic and then ask questions, starting with the medical students. If the student failed to answer correctly, the question was bumped to the intern and so on. I still remember being asked about fibular hemimelia and silently thanking the resident (Craig Eberson) for telling me to read up on it the night before. After having missed a question about aggracane the day before I so wanted to impress Dr. Ehrlich, who by now I held on a pedestal. I don’t know of another chair-

man who, while excelling at his clinical and administrative duties, still found the time to meet with and teach the residents and students on a daily basis.

My experience at Brown was filled with great mentors. Dr. Ehrlich was certainly one of them. His character, dedication to patients, commitment to residents and students, and contributions

ber or first line. Besides the error in citation, I was glad to see you bridge the gap between poetry and medicine.

Elizabeth Metzger ’11
Providence, RI

Brown Medicine replies:

The citation refers to the first collection of Emily Dickinson’s poetry published by

I don’t know of another chairman who **still**
found time to meet with residents and
students on a daily basis.

to orthopaedics are incredible. He sets an example for all of us in medicine. Thank you, Dr. Ehrlich.

Erika J. Mitchell ’95 MD’99
Assistant Professor of
Orthopaedic Trauma
Loyola University
Medical Center
Chicago, IL

BECAUSE WE DID NOT LIKE DASHES

I was so pleased to see you use that striking quotation from Emily Dickinson on your most recent cover (Winter 2011). However, when I checked, you stated that the text came from “The Chariot” by Emily Dickinson. In addition to using dashes rather than commas at the end of the line, it is very significant that she did not title her poems. The poem is not called “The Chariot” and does not use the word chariot. It is Poem 712 from the Thomas H. Johnson edition of *The Complete Poems of Emily Dickinson*. It can be cited by poem num-

Thomas Wentworth Higginson and Mabel Loomis Todd in 1890. They did alter the dashes and add titles, but we preferred the comma version for our purposes.

BUILT TO LAST

A number of letters were posted online in response to “Pride of Place” (Winter 2011). To read all of them, visit <http://brownmedicinejournal.org>.

I love this piece. It is so important for all of us to understand and appreciate the people who transform this campus every day. They are the magicians who turn dreams into reality.

Robin Rose
Senior Associate Dean
Office of Continuing
Education
Brown University

I am so impressed by this profile of construction workers. They are the invisible heroes/heroines of our built world.

Mary L. White



FEED US.

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

- **Brown Medicine**
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THE BEAT

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



RAY OF HOPE

In addition to the clinical trials group, Karen Tashima directs the Infectious Diseases fellowship.

DECADE

Raising Lazarus

Clinical trials bring leading-edge HIV care to Rhode Islanders.

Associate Professor of Medicine Karen Tashima witnessed one of those rare moments in medicine when suddenly a new treatment gives hope to patients once doomed. She was a few years into her career as an infectious disease specialist when antiretroviral drugs commuted the HIV/AIDS “death sentence” to chronic, manageable illness.

“Everything changed around ’96-’97,” Tashima says. “We got much more effec-

tive therapy, lab tests to monitor HIV better—it was a very exciting time.”

Tashima joined The Miriam Hospital’s Immunology Center, where she still sees patients today, and Brown’s Division of Infectious Diseases in 1995. She was charged with running clinical trials of the new HIV medications, which proved to be effective and were approved. Because of the trials, Rhode Islanders were among the first patients to get the drugs

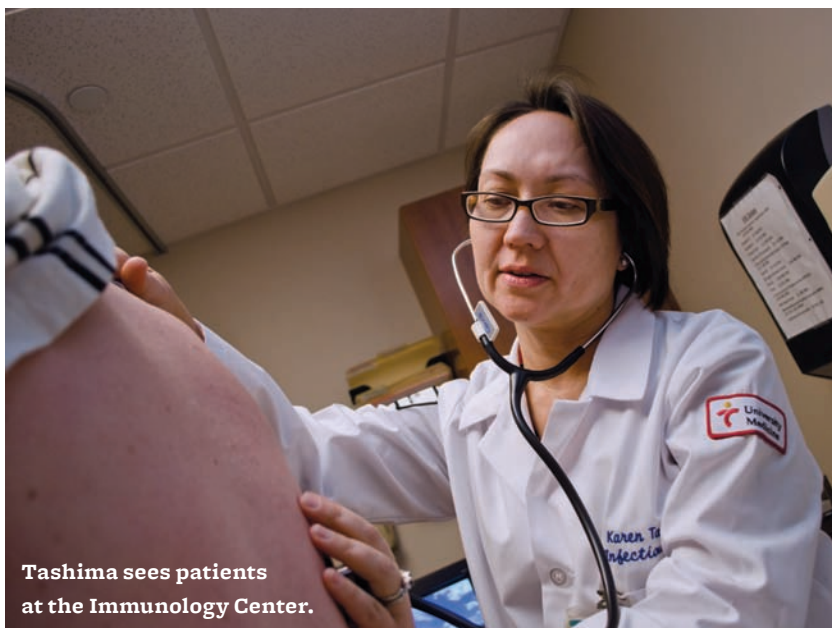
as they were being developed. The state saw deaths from AIDS plummet within a year, she says.

In 2000, the National Institutes of Health awarded a large, seven-year grant (since renewed) to The Miriam to establish an AIDS Clinical Trial Unit (ACTU). Tashima has been the medical director of the ACTU since its inception.

“As medications came to market, we discovered there were toxicities associated with them,” Tashima says. Many of the studies looked at ways to mitigate the side effects. “Now we have great medications, and we have options for patients so we can individualize therapy.”

Investigators from the ACTU sites (which are located worldwide) gather together about three times a year to dis-

DAVID DELPOLO



Tashima sees patients at the Immunology Center.

with treatment-resistant virus. The study will enroll more than 400 patients at 62 sites nationwide, including kids as young as 16. “We think [the findings] will be very important, changing how we treat people with drug-resistant virus.”

Tashima is collaborating with Professor of Psychiatry and Human Behavior Ron Cohen to study the impact aging with HIV has on the brain. HIV

cuss trials. “It’s been great working with investigators around the world and sharing their expertise on HIV. We adjust our agenda based on ... what is important to our patients. What is the community of HIV-infected people saying they need?”

Tashima says the case of the Berlin patient—a man who was cured of HIV after undergoing a bone marrow transplant—has put the idea of a cure back on the table. The group is trying to learn from that case.

“What is the community of HIV-infected people saying they need?”

Right now Tashima is directing studies to see if people with HIV can be given the shingles vaccine, since the weakened immune system makes them susceptible to this infection. She is also chair of a protocol that she designed called OPTIONS, which is for people

affects the brain, and while antiretrovirals stave off the dementia it once caused, patients do develop minor cognitive problems. “We’re concerned aging will accelerate that process,” Tashima says, so the study will follow patients long-term as they age. —*Kris Cambra*

ON CAMPUS

Sing the Body

LAST FEBRUARY Dr. Rafael Campo, right, delivered the 17th Dr. Stanley D. Simon Lecture and Forum, titled “Cultural Competence: Poetry and the Importance of Voice in the Illness Experience.” Campo recounted that of all his identities—person of faith, Latino, gay—it was his status as poet that most unnerved people when he started his medical studies at Harvard. Today Campo teaches and practices internal medicine at Harvard Medical School and Beth Israel Deaconess Medical Center, and is on the faculty of Lesley University’s Creative Writing MFA Program. “I can’t imagine now the work of medicine without poetry,” he said. “If poetry is anything, it is the immersion in another person’s voice, in that rhythm of the body.”



THEBEAT

CLASSROOM

Sail with the SEA

Undergrads to break ground, discover new life.



Collecting bacteria samples.



Students from the College of William and Mary work on the DNA sequencing portion of the SEA course.

Peter Shank, interim associate dean of biology and professor of medical science, serves as co-principal investigator of the grant. He explains the conundrum of many science undergrads that this course hopes to resolve: “Often students are caught in a ‘catch-22,’ where they can’t get into research labs because they lack research experience. They typically can’t get research experience without quite a bit of course preparation.”

The hope is that exposing students to the dynamic process of science and the discovery of new knowledge early in their undergraduate career will encourage a passion and drive for continued science education and research.

HHMI has committed \$4 million to the course and provides the training, research, and laboratory materials needed

Beginning this fall, Brown undergraduates studying science will have an exciting opportunity to play (and learn) in the dirt.

The Howard Hughes Medical Institute (HHMI) has selected Brown as one of 12 institutions nationwide to join HHMI’s Science Education Alliance (SEA).

The SEA will sponsor a year-long course for Brown undergrads in which students will collect, isolate, and analyze the DNA sequence of soil-dwelling bacteriophages. Since 2008, nearly 1,700 students at more than 40 institutions have participated in this prestigious program.

Brown students taking part in the SEA-sponsored National Genomics Research Initiative course will be involved in tangible scientific research concerned with real questions—rather than the typical “textbook” experiments many are used to in high school and college labs.

Students will collect, isolate, and analyze the DNA of soil-dwelling bacteriophages.

to conduct the class, which is the first program of the SEA. HHMI will support the course at each institution for up to three years.

In the first semester, students work to isolate phages from local soil. After naming their own newly discovered life form, students extract DNA and send samples to one of several national research centers for sequencing. During the spring semester students learn bioinformatics techniques to analyze the genomes of the phages they discovered.

The technology used in the course is cutting edge. According to Shank, “Many of these methodologies were unavailable only a few years ago.”

—Justin O’Neill ’11

WHO KNEW

Swimmer, Know Thyself

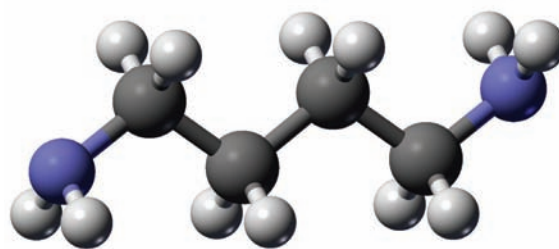
An injury leads to insight.

Clinical Assistant Professor of Orthopaedics Richard S. Limbird, a specialist in adult reconstructive surgery at Rhode Island Hospital, has always enjoyed sports. But it wasn't until he had spine surgeries—one in 1982, a second in 1986, and a third in 1991—that he experienced firsthand the direct and healing effects of long-distance swimming. As a result of an associated and permanent foot drop—the inability to move the ankle and toes upward—it was difficult for Limbird to walk. But he could swim. “Swimming became part of my personal rehab,” he says.

In 1988, he completed his first Save the Bay Swim, a 1.8-mile course from Newport to Jamestown, RI. The event raises funds to help protect and restore Narragansett Bay. “I feel strongly about donating to environmental causes,” he says. Though his daughter has joined him several times, Limbird generally makes the journey alone.

Seventeen bay swims later (with a few missed years due to a serious biking accident), Limbird is as committed as ever to staying active. He lives with his wife on the Narrow River in Saunderstown, RI, and swims the way other people go for walks—except that rather than broken sidewalks and the occasional stray dog, he has to contend with strong currents and winds, tidal surges, and powerboats. “When there is true chaos I bring the kayak along to keep me intact,” he says.

Swimming for Limbird is more than just a way to stay in shape. “When you do an extended swim, it is rare that you do not learn something new of yourself,” he says. Both the psychological and the



To Soothe and Protect

New role for an old molecule.

Putrescine, a polyamine present in the brain following an epileptic seizure, has long been mysterious to brain scientists. Where does the molecule come from? Does it exacerbate damage to the seizure-stricken brain, or defend against it?

The questions of how and why putrescine appears are still unanswered, but a new study headed by Assistant Professor of Neuroscience Carlos Aizenman suggests that the molecule is welcome to stay.

The Brown team conducted a series of experiments on the brains of seizure-laden tadpoles. Their findings show that putrescine converts to the neurotransmitter GABA—a molecule known to calm brain activity—and that it has a protective effect against seizures.

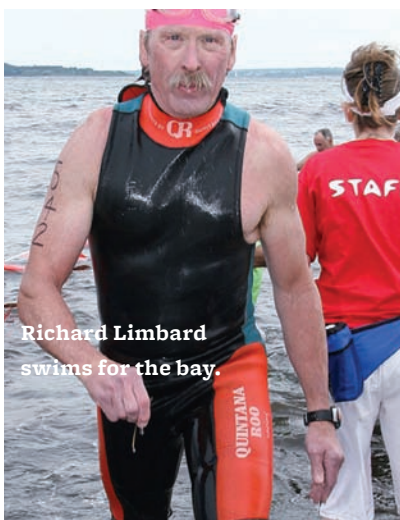
Aizenman, the senior author of the study published in *Nature Neuroscience*, thinks further research could lead to the development of a drug that eases epilepsy symptoms in young children, whose basic brain chemistry is similar to that of a tadpole. “Overall, the findings presented in this study may have important therapeutic implications,” Aizenman and co-authors wrote.

In the meantime, the research sheds some light on an old puzzle and may also help explain a bit more about young brains in general, Aizenman thinks.

In addition to Aizenman, the paper's authors are graduate student Mark Bell and undergraduates James Belarde '10 and Hannah Johnson '11.

—Adapted from an article by David Orenstein

Findings



Richard Limbird swims for the bay.

physical training help him to get through the 12-hour surgeries his work frequently requires. “Being fit in both body and mind helps.”

But Limbird is quick to point out that intelligence, discipline, and physical strength are not the most critical attributes of a good physician: “To truly listen to a patient, to have compassion—that’s what is important.”

—Kylah G. Klinge

THEBEAT

BUSINESS

Amazing Autodidact

Brown professor designs an electronic health record.

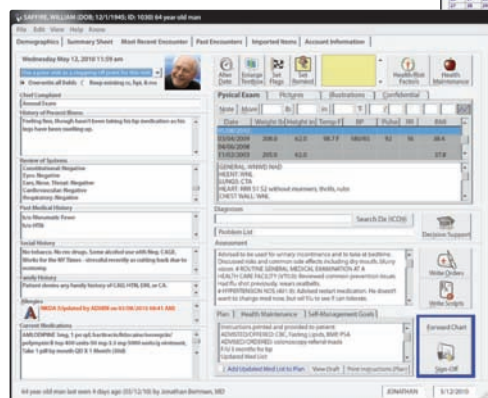
Jonathan Bertman, MD, FAAFP, was sick of paper and decided to do something about it.

Bertman, a busy man on the lookout for any improvement in efficiency, is a clinical assistant professor of family medicine and has a private practice in Hope Valley, RI.

As founder and CEO of Amazing Charts, he is also an entrepreneur with dreams of a better electronic health record (EHR).

Seeking an EHR system to manage his practice in 2001 but struggling to find one that fit his particular needs and budget, Bertman decided to create his own—from scratch, even though at the time he had absolutely no experience with computer programming.

After a significant investment in programming instructional books, Bertman taught himself to program in his



(rare) spare time. Once he got the hang of it, he spent hours tweaking, adding features, and fixing bugs—often working late into the night.

What sets Amazing Charts apart,



ON CAMPUS

Eat Right, Live Well

ASSISTANT PROFESSOR OF MEDICINE (Clinical) Mary Flynn, a research dietitian at The Miriam Hospital, and her co-author, **Nancy Verde Barr**, did a cooking demonstration and signed copies of their book, *The Pink Ribbon Diet: A Revolutionary New Weight Loss Plan to Lower Your Breast Cancer Risk* (Lifelong Books, \$16.95), at the Brown Faculty Club on March 10. Packed with 150 recipes, the book promotes the olive oil and plant-based diet Flynn has studied in overweight women who had previously undergone treatment for invasive breast cancer. —K.C.



Bertman thinks, is that it was designed by a practicing physician rather than a computer programmer who may not fully understand a doctor's needs. While other EHRs Bertman tested seemed to slow and complicate office operations, his streamlined design significantly increased productivity and led to financial savings.

Amazing Charts now includes tools for managing scheduling, intra-office messaging, prescribing, reporting, bill-

ing, and more. The key is simplicity. Not only does Bertman hope to reduce costs with Amazing Charts, he wants to reduce the number of clicks necessary to complete a task to the absolute minimum.

Bertman's singular combination of ambition, medical expertise, and business savvy was honored in 2010 when he was named "Physician Entrepreneur of the Year" by *Modern Physician Magazine*.

In February, Amazing Charts announced its Version 6 EHR was certified for 2011-2012 by the Certification Commission for Health Information Technology, meaning the EHR meets the criteria set under federal stimulus act regulations and may now be purchased with federal grant funds.

Today Amazing Charts is used in 4,200 practices and adds an average of 60 new customers per month—a testament to Bertman's success that can only be called amaz—er, incredible. —J.O.

COURTESY AMAZING CHARTS; FRANK MULLIN

COLLABORATION

The Human Touch

Inspiration is key in choosing a career in primary care.

Statistics show a worrying downturn in the supply of new primary care doctors across the nation, but the way to reverse that trend has little to do with aggregations and averages. A young doctor's decision whether to pursue a career in primary care or to specialize is deeply personal, even if it is also a major public policy concern.

A new partnership among Alpert Medical School, the Rhode Island Foundation, and Lifespan Corporation to promote primary care is therefore launching with a focus on mentoring. To address the primary care pipeline problem is to compete one-by-one for students' hearts and minds.

Take the case of Joshua Fischer. Throughout his education at the Medical School and now in his internal medicine residency at Rhode Island Hospital, he has thought a lot about how he can best make a difference as a doctor.

"The place where you really make a difference in caring for adults is not usually in the hospital once people have reached the dramatic end-stage of illness, but it's in the 'mundane' things that happen in the primary care office," he says.

He traces that sense, and the resulting lean toward a career choice in primary care, to the mentoring and professional exposure that he gained from preceptors in private practice during a primary care clerkship as a student in 2009.

The most frequently cited reason why medical students don't pursue primary care is financial, says Dean of Medicine and Biological Sciences Edward Wing.

"Primary care doctors really work hard and they have very difficult conditions," says Wing. "Medical students have tended to go into the higher earning fields where they can make three to five times what primary care doctors make."

Brown students and residents say it's more complex than money. Like Fischer, they leave a lot of room for inspiration.

That's why with a grant of \$87,500, the Rhode Island Foundation, the Medical School, and Lifespan feel they can begin to have an impact, says Owen Heleen, vice president for grant programs at the Rhode Island Foundation.

"Primary care really resonates with people in a very personal way," Heleen says.

The money will help the School shore up mentoring programs, such as clerkships, by providing primary care doctors in the community with financial compensation for sharing their time with students.

Philip Gruppuso, associate dean for medical education and the primary architect of the medical education portion of the grant, says the School is in it for the long haul.

"This will be a sustainable effort. It goes beyond one grant," Gruppuso says. "This is the beginning of something we are absolutely committed to."

—D.O.

Joshua Fischer MD'10
is now a second-year resident
in internal medicine.



THEBEAT

ELEVATOR PITCH

Good to Great

New captain for flagship department.

With 535 faculty in five hospitals, nearly \$36 million in research funding, and 11 specialty divisions, Medicine is by far Alpert Medical School's largest department. Louis Rice, MD, took on the challenge of chairing the department last fall. Rice, who is the Joukowsky Family Professor of Medicine, came from Case Western Reserve, where he was chief of medical service at the Cleveland VA Medical Center and vice chair of the Department of Medicine at the University Hospitals of Cleveland.

As chief of medicine for Lifespan, Rice is responsible for managing clinical services, educational and research activities, and administration for the Department of Medicine. He is also executive chair of medicine at Memorial Hospital of Rhode Island, the Providence VA Medical Center, and Women & Infants Hospital of Rhode Island. An infectious disease specialist, Rice will continue his research in the mechanisms of antibiotic resistance and strategies that will minimize antibiotic resistance.

Brown Medicine recently talked to Rice about his plans for the department.

You've been on the job for six months. What are your impressions?

We have three missions: clinical care, teaching, and research. The clinical care here is high volume and it's superb. There are always ways in which we can improve. How can we get patients appointments more quickly? How can we set things up in ways that are more affordable? I will focus on that first because if you want to be a great academic medi-

cal center, you have to do great medicine. The teaching mission is terrific—there are great teachers here and it is a high priority. The challenge is going to be the expansion of the Medical School. We need to find sites where the students can be trained by superb doctors. As the Medical School expands to the planned

120 students [per class] and the health care system changes at the same time—it's a little dizzying when you think about it.

Finally, we're a growing research operation, and while research is a critical part of being a top-flight academic medical center, we must recognize that we are entering a time of lean funding. We have to build on our strengths and focus on areas that we can do well in, and not blindly try to be great at everything. We have to make the right investments.



Lou Rice

How will you ensure the quality of teaching?

A lot of the evaluation is based on feedback from the trainees. Medical students are extremely smart, very perceptive, and usually not afraid to voice their opinion. The opinions of the students will figure heavily. As we look at practices that haven't been involved in teaching before, we may have to send people out to observe the office and ensure that the people who will be teaching our students are appropriately trained.

"Our workforce and trainee force must be more reflective of our patients."

Primary care is a hot issue. Do you foresee launching initiatives to encourage more medical students to enter primary care careers?

I think primary care is going to be one of the most exciting areas in medicine over the next 10 or 15 years. There is great interest on the part of the people who pay for health care to only do what's really going to help people. There are measures we can take now in the primary care setting that we know will reduce hospitalizations. It's a really exciting time because I think the insurance companies and the government are going to support primary care in ways it hasn't been supported before.

How do you encourage people to go into primary care? That's more complicated. The differences in compensation, I believe, will even out over time, but many students are going to want to do specialty care. Brown students are smart, they have a social conscience, and they are interested in the questions that primary care is designed to answer. I think we probably do have a leg up here.

You've talked about increasing diversity. Is that of interest to you?

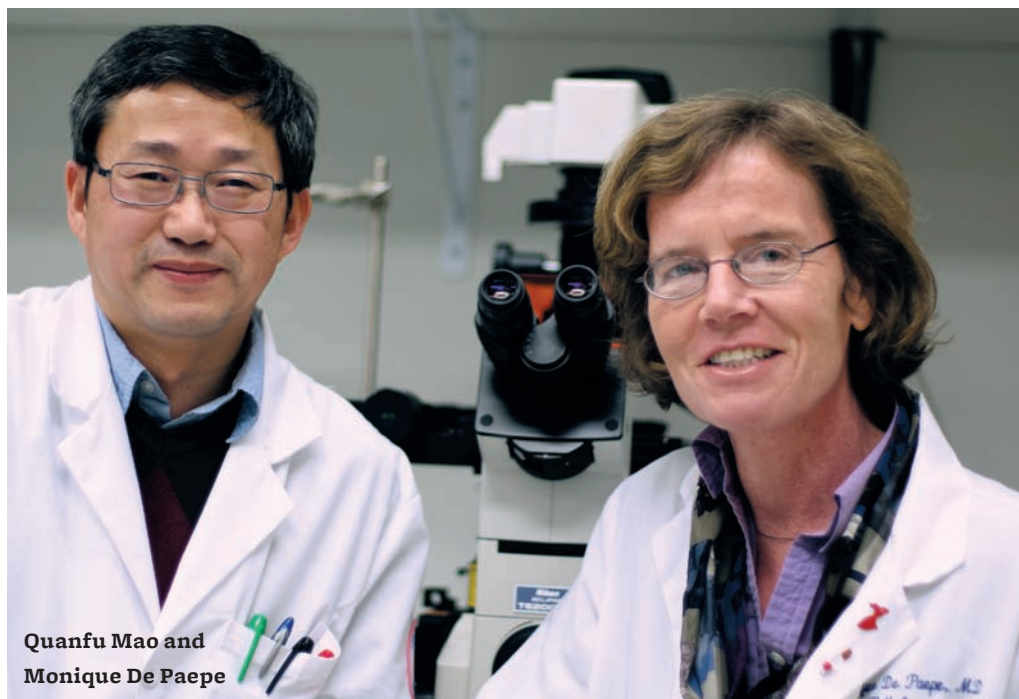
Yes. There are two different aspects. First is women in medicine. There's no problem with women entering medicine. But there is still a significant lack of women in leadership positions. I think many women don't feel those opportunities are open to them. To me it seems like a terrible waste of talent. I want the best qualified person regardless, but as leadership positions evolve here, I'll be very interested in promoting women.

As for underrepresented minorities, they are underrepresented in medicine, but not among our patients. If we want to be a medical school for the 21st century, then our workforce and trainee force must be more reflective of our patients. It is my goal to create as welcoming an atmosphere for underrepresented minorities as we possibly can. We'll always seek the best and the brightest, but we'll make it clear we are a very welcoming environment.

You also talk about patient safety.

That comes under quality improvement. I have the good fortune of having spent the last 20 years in the VA health system. [It] has done more than most to promote a culture of quality and it's worked. I have charged each division to come up with its own quality improvement project. They determine, "What about our practice is not working the way we want it to? Who do we need around a table to figure out how to measure the problem accurately, come up with a plan to improve it, and then measure to see if it worked?" My goal is for this to become part of our culture. The response to a problem is not to point the finger, but to figure out an acceptable solution. There's a lot of good stuff here, but you'll never convince me we can't do a lot of things better than we do. —**K.C.**

FRANÇOIS LUKS



RESEARCH

A Breath of Fresh Air

Big breakthrough in repairing tiny lungs.

Researchers at Brown, led by Monique De Paepe, associate professor of pathology and laboratory medicine, found that using stem cells derived from umbilical cord blood can repair neonatal lung injury.

Premature infants treated with supplemental oxygen or mechanical ventilation are at risk for bronchopulmonary dysplasia (BPD), a chronic disease of the preterm infant that halts lung development.

BPD is a frequent complication of premature birth. The discoveries suggest that stem cell-based therapies can restore injured newborn lungs.

The discoveries suggest that stem cell-based therapies can **restore injured newborn lungs.**

Though efforts have been made in this area with marrow-derived stem cells, little research has been conducted with umbilical cord blood-derived cells. According to their study, "Cord blood stems cells can be collected at no risk to the donor, have low immune reactivity ... and are not subject to the social and political controversy associated with embryonic stem cells."

Other members of the Alpert Medical School community involved in the project include Quanfu Mao, Sailaja Ghanta, Virginia Hovanesian, and James Padbury. The team published their findings in the March issue of *The American Journal of Pathology*. —**J.O.**

THE BEAT



COOL TOOL

Cutting-Edge Technology

New device could have a major impact in global health.

Meet AccuCirc, a major innovation for an old procedure.

A team at Hasbro Children's Hospital led by David Tomlinson, clinical instructor in the Department of Family Medicine, has been working for the past six years to develop a better way to deliver infant male circumcision in resource-limited areas for the purpose of HIV prevention.

The culmination of their efforts is a new device, the Atraumatic Circumcision Device, a.k.a. AccuCirc. AccuCirc was first tested at Hasbro Children's

Hospital and then at Women & Infants Hospital under the careful supervision of Anthony Caldamone '72 MMS'75 MD'75, professor of surgery (urology), and Scott Walker, clinical assistant professor of obstetrics and gynecology, and will now go on to make a difference across the globe. It is already being used

routinely throughout the US. The device "could have a major impact on protecting infants from injury during male circumcision and an enormous impact on the epidemic," says Tomlinson.

The World Health Organization has concluded that the efficacy of male circumcision in reducing female-to-male transmission of HIV has been proven beyond a reasonable doubt. By simplifying the procedure, AccuCirc eliminates or drastically reduces the risks of many accidental complications of male circumcision, such as urethral injury, penile laceration, and transmission of infection.

The country of Botswana has recently initiated an IRB-approved acceptability study of the tool in anticipation of nationwide expansion of usage of the device. A similar IRB-approved study has also occurred in Nigeria.

"We are proud of taking an idea from the lab, to the bedside, to the world," says Tomlinson.

—J.O.

COURTESY CLINICAL INNOVATIONS; ADAM MASTOON

ON CAMPUS

Hearts and Minds

THE DEAN'S PROFESSORSHIP in Medical Sciences in honor of Charles C. J. Carpenter, MD, was dedicated on March 31. Timothy P. Flanigan, MD, chief of the Division of Infectious Diseases (left), is the inaugural incumbent.

G. Nicholas Beckwith III '67, PMD'99RES'02, the Department of Medicine, and The Miriam Hospital contributed to the endowed professorship as a tribute to Carpenter, a leader in infectious diseases—particularly HIV/AIDS treatment and prevention—for whom it will eventually be named.



Book SHELF



The Color of Atmosphere: One Doctor's Journey In and Out of Medicine

by **Maggie Kozel, MD**

Kozel is an alumna of the Brown Writers Symposium. Chelsea Green Press, 2011

ROOMMATES

Together at Last

Hasbro introduces a first-of-its kind transplant program.

An innovative new program at Hasbro Children's Hospital keeps families together after major surgery. "Together Through Transplantation" will allow parents who serve as organ donors for their children to recover alongside their children after the operation.

The program places children and their parent-donors in the same room throughout the recovery period following organ transplant surgery. Hasbro Children's Hospital is the first and only hospital in the nation to offer this kind of program.

The hospital must be prepared to offer transplant services for both adult and pediatric patients. While many hospitals provide fold-out beds for parents to stay in their child's room during a recovery, they typically do not have full inpatient treatment for adults in the pediatric unit—a feature unique to Hasbro's program.

Over Heard

"Testosterone is a weapon of mass destruction ... look at the economy. History is filled with patriarchal men doing stupid things."

—MALCOLM POTTS, PhD, Bixby Professor of Population and Family Planning, School of Public Health, University of California, Berkeley, from the 2011 Women's Reproductive Health, Freedom and Rights Scholarly Concentration Lecture at Brown, "The End of Patriarchy: How evolutionary biology explains conflicts between male and female reproductive agendas."

"What seems to be a very basic accommodation actually requires a great deal of planning, organization, and training," says Thomas Tracy, Hasbro's surgeon-in-chief, professor and vice chair of the Department of Surgery, and mastermind of the TTT program. "A team of 15 to 20 doctors, nurses, social workers, pharmacists, and dietitians had to prepare to coordinate both adult and pediatric care

simultaneously. Typically, they would either see pediatric patients or adult patients only—never both."

Hasbro sees many benefits to the new program: sharing a room creates a more comforting recovery for both parent and child, and the proximity gives the parent real-time access to information regarding their child's treatment.

The first parent-child duo to participate in the program was discharged on January 1, 2011. After side-by-side surgeries and two days in their respective ICUs, the duo was moved to a room in Hasbro Children's Hospital for the next several days of recovery.

Paul Morrissey, surgical director for the transplant program at Rhode Island Hospital, thinks the program will lead to improvements in healing time, too. "The goal of the program is to give families a better hospital experience, which can lead to faster recoveries," he says. "Rather than having mom or dad a quarter-mile away on the adult side, they can stay in the same room as their child, where they can encourage their child and take a more active role in the recovery process."

—J.O.

THE PROVIDENCE JOURNAL/KATHY BORCHERS



Jeihel Garcia Torres, 4, recovers with his mother, Yorelis Torres, 25, left, at Hasbro, after she donated a kidney to him. At right is his father, Emilio Garcia.

THEBEAT

ANATOMY OF A FOURTH-YEAR STUDENT

Home Free

The fourth year of medical school has the highest stakes: you apply to residency programs, then wait to find out where you matched and will spend the next several years of your life. There are board exams to pass, and graduation requirements. But on the bright side, fourth-year students have much more flexibility in terms of time and schedules.

Bridget Malit came to Alpert Medical School after completing the post-baccalaureate program at Bryn Mawr. She and fiancé Luke Godwin MD'11 “couples matched” for residency at Weill Cornell’s New York Presbyterian Hospital—Bridget in pediatrics and Luke in medicine. This spring, Bridget and her mentor, Dr. Julie Taylor, were recruited to speak to Brown Clubs in Florida about how the Medical School’s curriculum prepares future physicians for changes in our health care system and how patients can use the doctor-patient relationship to optimize their own health. Bridget completed her longitudinal clerkship with Taylor, which involves working with the same physician weekly. “I got to know Dr. Taylor’s patients very well—she is incredibly diligent and compassionate with [them]. It was an amazing experience,” Bridget says.

—K.C.

• All good pediatricians have little toys like this to distract children. Bridget won this at a pediatrics noon conference for answering a nephrology trivia question correctly.



• One of Luke’s favorite magazines. The couple is excited to be able to go to all of the amazing restaurants and events they currently read about from afar.



• Bridget majored in English at NYU, and she loved having more time to read novels this year.



• Necessary for the Florida sun.



• All-access pass: Bridget wore this to every clinical rotation.

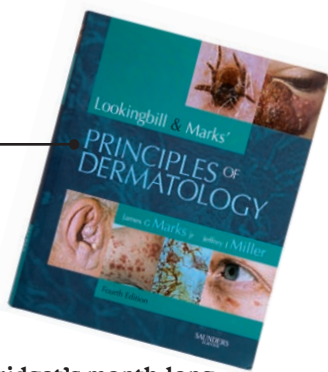


• Bridget and Luke will be married on June 4, 2011.

• Three outfits for Orlando and Vero Beach, including one that withstood hurricane-force winds in central Florida.



ADAM MASTOON



● Bridget's month-long elective in dermatology exposed her to fascinating patients, both adults and children.

● Fourth-years have time for independent study. Bridget worked with the Rhode Island Breastfeeding Coalition to update the question-and-answer section of their Resource Directory.



● The folder from Bridget's interview day at Cornell.

● More time for yoga at Synergy Power Yoga in Barrington, RI. Yoga inspired Bridget to pursue the Scholarly Concentration in Contemplative Studies.



FIREWORKS

Boldly Biomed

Campaign wraps up, yields big gains for the Division.

Brown made a bold move seven years ago—and it paid off.

Brown President Ruth J. Simmons has announced the successful conclusion of the University's \$1.4 billion "Boldly Brown" comprehensive fundraising campaign. Final accounting, which finished in January, revealed the campaign reached \$1.61 billion, 115 percent of its original goal.

The campaign launched in October 2005 and had met its goal of \$1.4 billion by May 2009—a year and a half before its official close, in December 2010.

"This is an historic achievement for Brown, one that would not have been possible without your hard work and steadfast commitment to our goals," Simmons wrote to campaign leaders and volunteers.

What did Boldly Brown mean for the Division of Biology and Medicine? More faculty, for one thing. The campaign was closely tied to the Plan for Academic Enrichment, which called for increasing the size of the faculty by approximately 20 percent. The Program in Biology added 19 new faculty while the Public Health Program has recruited 16 so far.

The University's research enterprise has also grown thanks to the additional faculty and greater institutional support, such as seed funding and investment in research space. Research funding totaled \$115.3 million in FY 2002 and grew to \$180 million in FY 2010, a 56-percent increase.


During the campaign, the University added properties in the Jewelry District and on South Main Street for a total of about 620,000 square feet at an investment of \$100 million. The Public Health Program centers and offices were consolidated at 121 South Main Street,

which also houses a new \$15.5 million math institute funded by the National Science Foundation. The Laboratories for Molecular Medicine in the Jewelry District and Sidney E. Frank Hall for Life Sciences on campus opened in 2004 and 2006 respectively, increasing life sciences research space by 70 percent.

One of two \$100 million campaign gifts went to the Division, naming the Warren Alpert Medical School of Brown University. A portion of The Warren Alpert Foundation's gift was used to begin construction of the new Medical School building at 222 Richmond Street, which will open in August.

BROWN

The Brown Medical Annual Fund nearly doubled during the campaign, from \$448,000 in 2004 to just over \$800,000 last year. The Fund is the main source of current use dollars for the Medical School, and is used for financial aid and medical education. A Public Health Annual Fund was launched three years ago, to raise unrestricted dollars for public health.

"The Division of Biology and Medicine received generous support from medical alumni, University alumni, parents, faculty, and friends," says John A. Perry, senior associate dean for biomedical advancement. "That's quite a compelling sign of broad support for the Division's mission to provide an innovative medical education, further life sciences research, and to improve the health of Rhode Islanders." —J.O. and K.C. 

Lady of the Flies

Susan Gerbi fights for the future of science while probing cellular-level clues to cancer.

It's the first Friday that feels like spring in Providence, and late afternoon sun streams into Sidney E. Frank Hall for Life Sciences as the campus shifts into weekend mode. A few students are still working in the second-floor laboratory of Susan Gerbi, founding chair of the Department of Molecular Biology, Cell Biology and Biochemistry and the George Eggleston Professor of Biochemistry. Gerbi buzzes between the lab and her office, doing what she does best in the intersecting realms of teaching and research.

"Susan's lab is always filled with students," says colleague Kenneth Miller '70, P'02, a professor of biology. "She's the sort of mentor who gives full credit to everyone working with her, and she encourages a cooperative and fertile lab environment."

In the span of an hour, Gerbi cajoles an off-campus colleague to continue a research project, advises a post-doctoral fellow about an experiment he's conducting under a grant from the Department of Defense Breast Cancer Research Program, and takes a visitor on a virtual tour of her 40-year career in cell biology and scientific thought leadership.

It all happens against a backdrop of concern and advocacy for the future of scientific enterprise.

BOOTSTRAPPING

Gerbi arrived in 1972, fresh from graduate work at Yale and postdoctoral training

at Germany's Max Planck Institute. Brown and Pembroke had just merged. The Corporation had just approved the full MD program. And Gerbi's startup package was a princely \$2,500. (She should have known that this was an institution without deep pockets, she notes wryly, when Brown declined to chip in for airfare during her job interview but did offer to pick up her \$14.28 bus fare.)

It was a challenging moment in science. The Nixon Administration had frozen federal research funding, and young scientists had to bootstrap their labs. "We got really thrifty," she remembers. "For instance, we discovered that you can re-use pH paper if you wash it in distilled water." Despite the arid funding environment, Gerbi's generation of researchers opened up vistas of new knowledge in basic science.

As time went on, Gerbi became a vocal, national-level advocate for research and graduate education as president of the American Society for Cell Biology and through leadership roles in the Association of American Medical Colleges and the Federation of American Societies for Experimental Biology. Armed with major grants from the National Institutes of Health, National Science Foundation, and American Cancer Society, she became an internationally recognized researcher in ribosomal RNA and in DNA replication. These areas are fundamental to an understanding of cell growth and cell division—work that may benefit people

with cancer, a fact that took on special poignancy when Gerbi became a breast cancer survivor a few years ago.

ENTER THE SCIARA

Critical to Gerbi's work is *Sciara coprophila*, a fungus gnat that contributes the DNA puffs of its giant salivary gland chromosomes to the research. The International Stock Center for the fly, handed down through a line of researchers since the 1920s, resides in Gerbi's lab.

"The many unique features of *Sciara's* chromosome biology provide terrific models for understanding the underlying molecular mechanisms of the more canonical processes in humans and other organisms," Gerbi explains.

"Initiation of DNA synthesis is the major check point in the cell cycle," she adds, explaining that the cell is committed to divide once the genome has been replicated. "We're using *Sciara's* DNA puffs, which represent sites of intrachromosomal gene amplification, to identify specific regions and sequences where DNA synthesis begins."

To facilitate the inquiry, Gerbi's team developed Replication Initiation Point mapping to identify the start sites of DNA synthesis at the nucleotide level, and have used the technique to show that—in yeast as well as in the *Sciara*—the site of initiation of replication is directly adjacent to the Origin Recognition Complex binding site. With that information in hand, they could then explore how *Sciara* DNA puffs override the cellular controls that permit DNA to be replicated just once per cell cycle. Gene amplification is a hallmark of several types of cancer, but it is not possible to study the initiating event in cancer



Susan Gerbi
in her lab.

“We discovered that **you can re-use pH paper** if you wash it in distilled water.”

cells; hence the usefulness of the *Sciara* DNA puff model system. Preliminary data suggest that *ecdysone*, a steroid hormone, induces DNA amplification, providing the first example of hormonal regulation of DNA replication. The next question is whether estrogen acts in a similar manner for human breast cancer.

A few years ago, fresh from her own struggle with the disease and immersed in recovering lost momentum in publishing and grant funding, Gerbi purchased a life insurance policy with the Genetic Society of America as beneficiary, providing a fund that would allow it to maintain the *Sciara* Stock Center for the future generations who will explore its unique chromosome biology and elucidate mechanisms of translational relevance to medicine.

It’s a unique solution, but part of a broad entrepreneurial approach famil-

iar to scientists everywhere. And entrepreneurial thinking is more critical than ever, says Gerbi.

BACK TO THE FUTURE

The funding environment for basic science research has come full circle since she started, Gerbi observes—back to extreme austerity. “We are in crisis,” she says. “There have never been so many consecutive years of a difficult funding environment. It’s affecting people’s careers. Brown has extended its time to tenure by one year in recognition of the fact that it’s so hard for people to get started. So many young researchers are finding themselves with a less full story to tell, due to lack of early funding.”

“The difficulty faced by faculty members in obtaining grants discourages their students from pursuit of a research career,” adds Gerbi, noting that

in a previous “grant drought” the percentage of Brown undergrads in Biomed concentrations dropped from 12 percent to 6 percent.

Gerbi fears that a brain drain may occur and that the epicenters of research will move abroad. “It takes a long time to build up know-how in a field,” she says. “[Nobel laureate] Tom Cech, at the University of Colorado, stated in a recent report that it’s not inconceivable that there could come a day, for instance, when we need a new antibiotic for a new disease that’s manufactured by a multinational pharmaceutical company in a country that happens to be at odds with the United States.”

Nobel laureate Craig Mello ’82, SCD’07 hon., P’14—a former student of Gerbi’s now based at UMass Medical School—shares her concern. “There’s a huge amount of pressure on the scientific enterprise, as scientific opportunities outpace federal funding cycles,” he says. “It’s well known that only the top few proposals can be funded in this environment, to the extent that a lot of people aren’t even bothering to apply.”

ZOOM

“Science is the driving force behind our technological civilization, and it moves forward in huge leaps, not at a rate of 2 or 5 percent a year,” Mello continues, noting that funding is especially tight for basic science. “In a very short time, a few decades, we have come from just beginning to probe the basic mechanisms of the cell to understanding fundamental molecular mechanisms of many diseases. While of course we need to spend money on applying discoveries that have been made, we also need to continue to fill the pipeline. Our understanding of basic cellular biology is still very incomplete.”

“Basic science is the engine that leads to fundamental new insights,” he adds. “Failure to fund it adequately, as President Obama said, is like throwing the engine out of a plane and expecting it to continue to fly. On the other hand, not adequately funding translational science is also tragic, as one would fear that new, life-saving therapies might never get tested. To pick up on the President’s analogy, it seems like biomedical scientists are being asked to disassemble the engine in order to build landing gear. And it’s not a good solution.”

SLACKERS NEED NOT APPLY

Mello was at the dawn of his scientific career when he took the advanced cell biology course Bio 1050—team-taught by Gerbi and Miller—as an undergraduate. “What a pair they were! They were awesome,” he remembers. “One of the things Brown has always done well is emphasize undergraduate education, and we’re fortunate to have really great teachers who bring science to life, who

help you get into the minds of the scientists who’ve made the great discoveries.”

“Susan and Ken made it real for you, and put the science in perspective, so that you really understood the human side of the story. I remember leaving class looking forward to hearing the next installment!”

“I’ve taught with Susan since I joined the faculty 31 years ago,” says Miller, noting that Gerbi chaired the search committee that hired him. “I’ve always been impressed by how often and how thoroughly she integrates her own research into her teaching, giving insight into her tools, techniques, and research findings as well as her dead ends. The students really benefit from the fact that they are talking to the woman who’s actually doing or did the work.”

“Susan loves the fact that her course has the reputation of having a heavy workload, which means that it attracts exactly the kind of student that she most loves to teach,” Miller adds with a smile.

For Gerbi, working with students offers immediate gratification as well as hope for the future. “We are blessed to have the students we have at Brown,” she says. “They’re geniuses. It’s fun to work with them.”

BECKMAN SCHOLARS

Gerbi is the principal investigator on a three-year grant from the Arnold and Mabel Beckman Foundation, awarded this spring, that establishes the Beckman Scholars Program at Brown. Each year, two top undergraduate students will spend a full year pursuing a collaborative research project with a Brown faculty mentor and a co-mentor at the Marine Biological Laboratory (MBL) at

Woods Hole, MA. (The University has had a joint education and research program with the MBL since 2003.)

“It’s an extremely competitive grant and a quite prestigious award,” says David Targan, associate dean for science education and director of Brown’s Science Center.

“The grant will enable students to act as links between Brown and the MBL, as they already do at Brown, [forging collaborations] across departments,” he adds. “The Beckman scholars will be engaged in projects over a period of time that is long enough to weave connections that will be sustainable long-term. We think students and faculty at Brown and the MBL will create some very interesting science. We plan to build upon the affiliation, so more students can participate. Beckman students may well go on to become Churchill, Goldwater, or even Rhodes Scholars.”

It’s a critical initiative for Gerbi. “The Program is a wonderful opportunity to stimulate interest in research careers among undergraduates early in their college experience,” she says.

“Susan’s heart is in research and teaching, and from those pursuits come her interests in securing appropriate levels of funding—for research and for training the next generation,” says Professor Emeritus of Neuroscience James T. McIlwain, Gerbi’s husband. “She’s felt a responsibility to make her voice heard in the public arena on their behalf. I think she sees advocacy as her lifelong community service project.”

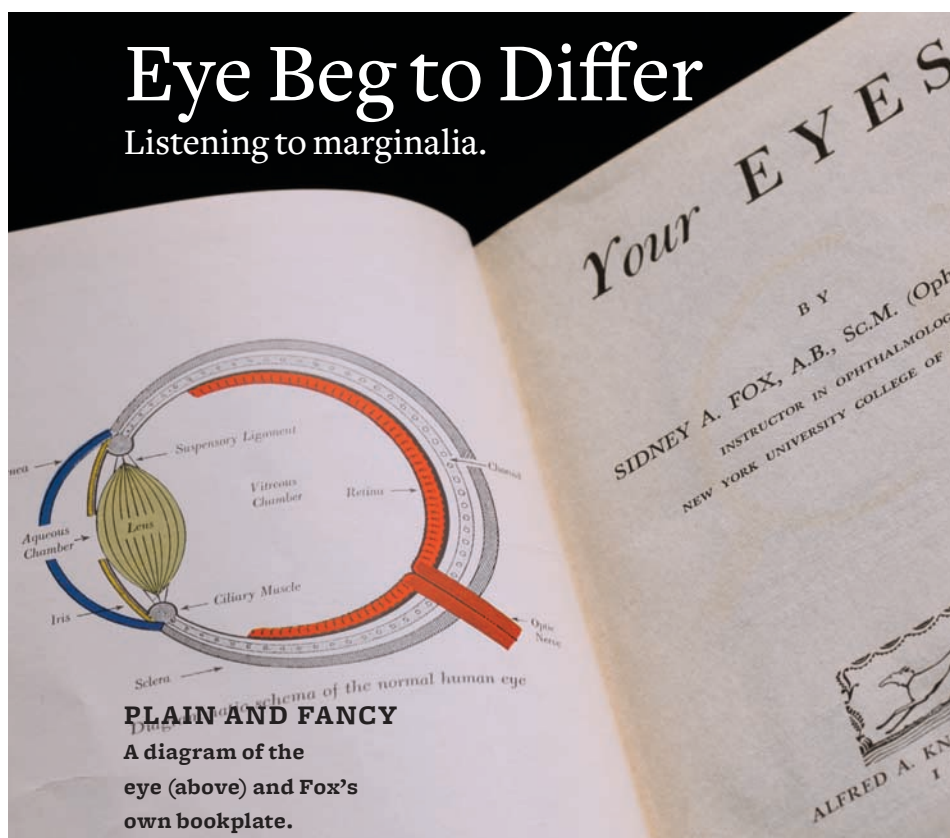
Eileen O’Gara-Kurtis is the founder and president of Silver Branch Communications and a frequent contributor to Brown Medicine.

FROM THE COLLECTIONS

BY SARAH BALDWIN-BENEICH
PHOTOGRAPHY BY KAREN PHILIPPI

Eye Beg to Differ

Listening to marginalia.



Brown University Library's History of Science Collection is full of rare old treasures that beg to be paged through with reverence and white gloves. But one of the most charming pieces is a slim blue book from 1944 that is almost Amish in its plainness. *Your Eyes*, by Dr. Sidney A. Fox, is exactly as straightforward and accessible as its title. It is part of the Sidney Fox collection on ophthalmology, which Fox donated to the Library.

In his book, Fox, an ophthalmologist and 1919 Brown graduate, sets out "to lay before the reader the commonly accepted facts that he ought to know about the eye." His tone is kind, even avuncular, especially when discussing



"tots" and "youngsters." On the necessity of wearing spectacles he writes, with endearing sensitivity: "The highly myopic child presents a special human problem. He or she must not be made to feel inferior to the other children or different from them. The child should not

be deprived of associations and games with playmates. The active child must play. Let it—with glasses."

Another volume from the collection reveals Fox's feistier side. The book is *The Art of Seeing*, by Aldous Huxley. In it, Huxley praises the work of Dr. W. H. Bates, whose 1920 book *Perfect Sight Without Glasses* maintained that poor eyesight was caused by strain and that glasses were harmful. Huxley, who had become nearly blind following an attack of keratitis punctata at 16, credited the Bates method with the recovery of his sight. Fox's penciled notes in the margins reveal incredulity and indignation, and constitute a sort of heated dialogue. "The fact that there is a grain of truth in his discussion does not alter the essential wrongness of his argument," he writes on one page. Elsewhere he dismisses a paragraph as "an effort to forestall criticism." Next to a section called *Reasons for fear of light*, Fox writes "I am grateful, at least, for his admitting the danger of watching an eclipse ... No-where is the old adage about a little knowledge being a dangerous thing more clearly illustrated." The more agitated he is the more laconic he becomes, sometimes scribbling "Whaddayouno!" "Have never seen it!" or simply "!!"

In 1975 Fox received an honorary DMS from Brown, and in 1982 his estate established an eponymous professorship (the Sidney A. Fox and Dorothea Doctors Fox Professorship in Ophthalmology and Visual Science). Though he died in 1983, reading these pages you can almost hear his voice.

Go to brownmedicinemagazine.org to see more illustrations.

An Old Fish Story

On the trail of one of the remote progenitors of life on earth.

Fish stories typically involve fishermen catching fish for pleasure, profit, or a nice meal—as well as a heavy dose of embellishment. This fish story is an exception. In fact, the fish we were after is itself an exception: catching it in the ocean for any purpose is a major violation of several international treaties. And based on reports from those who in the distant past experienced its oily texture and unpleasant taste, to eat it would be inadvisable even if it were legal. Nevertheless, finding this fish in Toronto in 2010 required the same tenacity, patience, time, and, ultimately, good luck required of any successful fisherman.

What is the fish in question? You may not have heard of it: it's a coelacanth (pronounced “seal-a-canth”), a 1.5-meter, 60-kilogram (nearly 5 feet and 132 pounds) sea monster with four limbs, two dorsal fins (most other fish have only one), and what has been playfully described as a puppy dog tail. In the depths off the southern and eastern coasts of Africa—its main habitat—it resembles a very large blue fish foraging slowly.

The coelacanth's potential to provide a link between fish and reptiles originally conveyed upon it pseudo-celebrity status among scientists and the public as an evolutionary Rosetta Stone. Rare observation of a living specimen has revealed that its paired lobe fins expand away from its body like legs and move in an alternating pattern simi-

lar to a trotting horse. Moreover, at 400 million years and counting, it is easily one of the world's oldest species. (By comparison, humans have been in existence for around 50,000 years, and based on how we are behaving and treating our planet, our survival as a species for 400 million years might be considered slightly optimistic.)

The extremely fortuitous discovery by a junior museum curator of the first coelacanth off the coast of South Africa in 1938, about 90 million years after the previously estimated date of extinction, is considered one of the greatest findings in modern biology. The focused search for more of these beasts—starting

ourselves; we would collaborate for the summer on this mission, junior student and senior mentor.

WANT FISH, WILLING TO TRAVEL

Our search for the coelacanth turned out to be an adventure in itself, although less daunting and complex than the intense search for the real specimens. It is estimated that about 1,000 coelacanth are alive in the wild and fewer than 200 have been officially recorded as caught. We knew our best chance at seeing the fish would be on land—about 150 of them reside in museums across the world. We sent emails to the most im-

The coelacanth's **potential to provide a link between fish and reptiles** conveyed upon it pseudo-celebrity status as **an evolutionary Rosetta Stone.**

about 70 years ago, initially by a committed and eccentric fish scientist, and culminating in modern researchers filming one in the wild less than 20 years ago—gave birth to a wonderful contemporary book by Samantha Weinberg called *A Fish Caught in Time: The Search for the Coelacanth*. After reading this fascinating tale, we felt a connection to the fish. We decided to try to locate a specimen close to Toronto to see it for

portant academics in the field of ichthyology in North America and even across the Atlantic. We were prepared to travel a distance.

But we wouldn't have to: after some further groundwork in Toronto with cooperative and informative colleagues at the Royal Ontario Museum (ROM), we found that we could catch our fish closer to home. At a private showing by a delightful and informative ichthy-



ologist at a top-secret location—the ROM storage facility outside Toronto—we were first shown a large number of specimens of northern pike and other local fish species. Our guide’s passion for fish was exhilarating, and paralleled our passion for our own work. We were then led to a special room full of huge sealed tubs that looked like giant refrigerators lying on their sides. And, finally, there it was: the noble beast lay in one of

the giant alcohol baths. (Displaying the fish in the main museum in a refrigerated chamber would be too expensive.)

As the assistants lifted the fish gently onto a steel table for our viewing, we noted that years of chemical preservation had robbed it of its native blue color—it was now mud-brown—and scientific exploration had robbed it of hunks of flesh here and there. But it was beautiful nevertheless.

We stood in silence for several minutes, soaking in the sight of the elusive creature that had captured our imagination and our hearts.

Brandon Kirsch is a Toronto-trained lawyer and medical student at Alpert Medical School. **Mark Bernstein** is a professor of surgery at the University of Toronto and a neurosurgeon at Toronto Western Hospital.

Quiet Pioneer

A tribute to Dr. John Dix Fisher '20.

Brown University's school of medicine in its present reincarnation has only been in existence for 36 years. But 1975 is not when Brown's medical history began: over the decades before the medical school was established, many Brown students pursued medicine after graduating from the College, going on to distinguished careers in the field. These graduates have been largely

unrecognized and forgotten. A case in point is Dr. John Dix Fisher.

Today, the stethoscope (usually slung over a white coat) has largely replaced the caduceus as the symbol of medicine. It was Brown's Dr. Fisher who introduced the stethoscope to the United States. He came to Brown from Needham, Massachusetts, and graduated in the class of 1820. He then went on to

the Massachusetts Medical College of Harvard University, as Harvard Medical School was then known. After graduating he went abroad for post-graduate training, in keeping with the custom of the time. He studied in several of the great medical centers of Europe, including Paris—then the hub of medical knowledge.

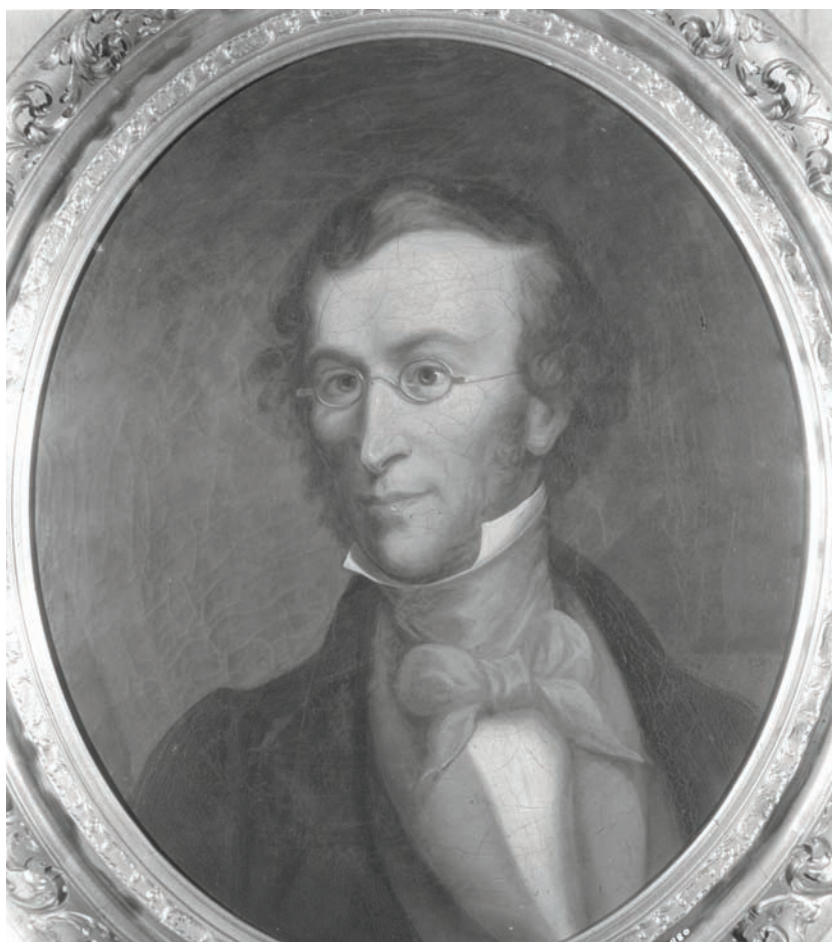
RÉVOLUTIONS FRANÇAISES

In Paris, Dr. Fisher came under the tutelage of Professor René Laënnec, the actual inventor of the stethoscope. Dr. Laënnec also revolutionized the diagnosis of chest and heart diseases. He wrote the first descriptions of bronchiectasis and cirrhosis and classified several pulmonary conditions, including pneumonia. Under Dr. Laënnec's guidance, Dr. Fisher became practiced at auscultation, a skill that he introduced along with his stethoscope to his colleagues in Massachusetts on his return.

For reasons that are unknown, during his stay in Paris Dr. Fisher visited the world's first school for the blind, l'Institut National Des Jeunes Aveugles (National Institute for Blind Children). Dr. Fisher was much impressed with the methods and results at the Institute: at the time, blind children were ignored by the medical and teaching professions and had no opportunity to obtain an education or place in society.

On his return to Boston, Dr. Fisher mobilized his family and friends to sup-

This portrait of John Dix Fisher was painted c. 1840 by his older brother, Alvan Fisher, a well-known New England artist.



COURTESY PERKINS SCHOOL FOR THE BLIND (3)



These tactile models were used in instruction or made by Perkins students to demonstrate understanding. In this photo from the early 1930s, students have made a plasticene model of the solar system, while the sandtable in the foreground shows a volcano erupting.

port financially and politically a school for blind children. As a result of his efforts, on March 2, 1829, the Massachusetts Legislature passed an act that incorporated the New England Asylum for the Blind and allocated \$6,000 to the school. After a lengthy search, Dr. Fisher recruited his Brown classmate, Samuel Gridley Howe—perhaps the greatest social reformer of the nineteenth century—to be the first superintendent.

Later renamed the Perkins School for the Blind for a generous benefactor, the school became world renowned when its teachers faced and solved a formidable challenge: educating a totally blind, totally deaf, totally speechless 7-year-old girl named Laura Bridgman. Laura became proficient in reading, writing, arithmetic, spelling, and geography, and learned to sew, swim, and ride on horseback. People came from all over the world to see her, including Charles Dickens, who spread her fame in several directions. Over the years, the school has educated thousands of children—including Helen Keller—using methods Dr. Howe developed. Today, it is the leading school for the blind, with branches throughout the United States and the world.

MAN OF MANY FIRSTS

Dr. Fisher was influenced by another great figure in medical history. In med-



**Annie Sullivan
fingerspelling a letter
for Helen Keller,
c. 1890.**

ical school, he had been a student of Dr. James Jackson, the first professor of clinical medicine at Harvard Medical School and a leader of the efforts to found Massachusetts General Hospital. At the behest of Dr. Jackson, Dr. Fisher designed a special study of small pox during an epidemic in Paris. Dr. Fisher wrote a book, published in 1829, describing the various poxes. He dedicated the book to Dr. Jackson (a copy of the second edition

is in the Brown University Library's History of Science Collection).

After working to establish the New England Asylum for the Blind, Dr. Fisher continued to make great contributions to the medical profession. He was present in the ether dome when ether was first used to provide anesthesia for surgical operation—considered by many to be the most significant event in American medical history—and became a pioneer and renowned expert in childbirth anesthesia using the substance. He also invented and used

an endoscope several years before Antoine Jean Desormeaux, a French surgeon often considered the “father of endoscopy.”

Dr. Fisher was also an early proponent of evidence-based medicine. He believed strongly in the collection of observable data followed by statistical analysis and was active in the founding of the American Statistical Association (ASA) in Boston in 1839. The co-founders

included President Martin Van Buren, Andrew Carnegie, Florence Nightingale, and Alexander Graham Bell. In 1842, Fisher and the ASA led Massachusetts to become the first state to collect and publish vital statistics. The ASA is still active in its support of research and sound statistical practice.

A modest, soft-spoken gentleman who never married, Dr. Fisher devoted his life to medicine. Throughout his 25-year career as a primary care physician and during his many years as a staff member at Massachusetts General Hospital, he was frequently called on by his colleagues to consult on difficult cases. His favorite activity was participating in meetings of the Boston Society for Medical Improvement: it was an un-

usual meeting when he did not present a unique case report or pathological specimen.

FRIEND OF THE POOR

Never in robust health, Dr. Fisher died at the age of 53 of an acute respiratory infection. He was widely mourned. The editor of the *Boston Courier* wrote, “a worthier man never existed nor one who combined a larger measure of benevo-

lence with so little pretense and so unmixed a disposition to do good for its own sake.” The esteem in which Dr. Fisher was held was reflected in a small article published on March 12, 1850, in *The Boston Evening Transcript*. “During funeral services for the late lamented Dr. John D. Fisher, held at the home of his brother,” it read, “a large group of poor persons was observed at the end of the street standing in the cold rain.

“[A] worthier man **never existed nor one who combined a larger measure of benevolence** with so little pretense ...”



Girls' Primary Building
class, 1904.

When asked, a spokesman for the group with tears in his eyes said, “We are attending the funeral here because we are not properly dressed to enter such a house.”

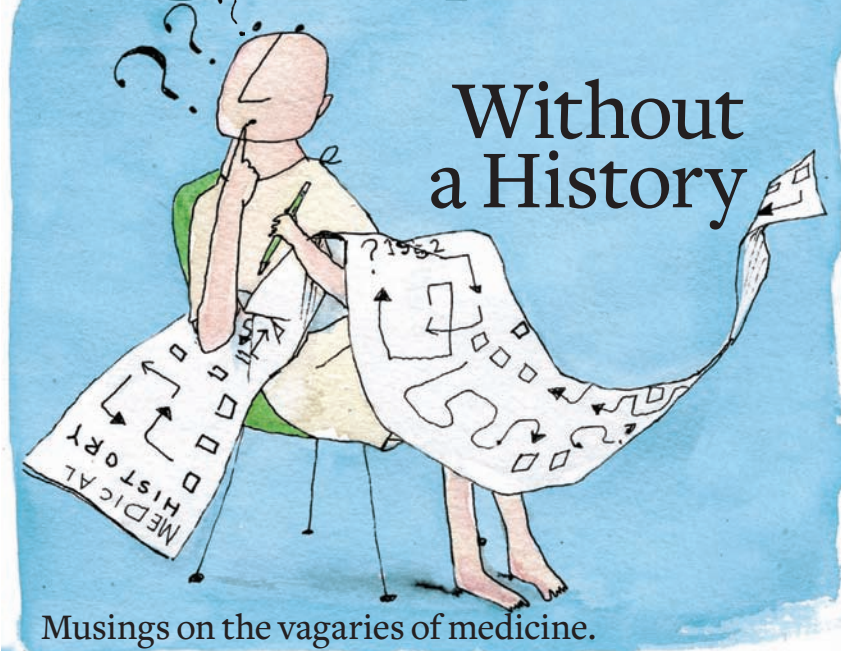
Soon after Dr. Fisher's death, a large number of his friends and former patients met to consider how they could honor his memory. They decided to erect a monument of white marble that stands today on the crest of a hill just inside the entrance to Mount Auburn Cemetery in Cambridge, Massachusetts. It bears the inscription, “To John Fisher M.D. by those who loved him for his virtues—the physician and friend of the poor.”

Dr. Dowling, an ophthalmologist and founder of the Rhode Island Eye Institute, former Brown trustee, and former president of the Class of 1947, has had a lifelong affection for Brown.

COURTESY PERKINS SCHOOL FOR THE BLIND

RESIDENT EXPERT

BY SAMUEL EVANS, MD, RES'



Without a History

Musings on the vagaries of medicine.

In an ideal medical encounter, a patient gives a concise, relevant history of her symptoms, the physician performs a focused physical examination, and the differential diagnosis—a list of the likely disease processes at hand—is formulated. A few lab tests rule in or rule out suspected conditions, a working diagnosis is made, treatment is initiated, and healing ensues. Simple, quick, straightforward. And, at times, vastly unrealistic. The vagaries of this process remind us that medicine is seldom an absolute science.

There is a long-accepted truism that we can discern nearly 75 percent of a diagnosis through a detailed history and physical exam. But many patients simply cannot give a coherent history. Due to age, dementia, intoxication, delirium, or a combination of the above, histories can range from erratic to misleading to outright comical.

Ever the sleuths of human woe, we rely on the physical exam to narrow the expansive differential diagnosis for a nebulous yet frequently encountered ailment of, say, “altered mental status.” Altered mental status can result from a dizzying range of disease processes, from life threatening—meningitis, myocardial

infarction, leptomenigeal carcinomatosis—to less worrisome maladies, such as mild dehydration or viral illness. Among the elderly, however, it seems an undercooked egg at the nursing home, a tiff with a family member, or a distressing Bingo outing can sufficiently perturb a patient to seek, or be sent for, medical evaluation. Additionally, between the nursing home, EMS, triage, emergency department and admitting physician, it is no wonder the patient is out of sorts and the history befuddled.

Divining a slightly incoherent narrative can reveal a delightful mash-up of facts. An elderly patient who was found on the ground recently informed a colleague she was in the hospital because someone “threw a pan of tomato sauce” at her. Was she hallucinating? Was she on the ground because of acute illness? Did she lose consciousness? Who was this hurler of marinara? In such situations the history is less a map and more a mélange of dead ends. Onward to the physical exam.

We can discern important diagnostic clues even if a patient is unable, when asked, to breathe deeply or to move an extremity in the neurologic exam. The patient’s fluent speech, lack of neck stiff-

ness, and ability to move her extremities argue against many neurologic processes. But how to interpret the matted red material in her hair? Could it be blood, and possibly a harbinger of underlying subdural hematoma? Or simply marinara?

Having exhausted the two pillars of our diagnostic armamentarium—the history and physical exam—we must choose from a slew of tests and imaging studies. In med school, we learn about the pitfalls of tests ordered without the scaffold of clinical suspicion: false positives, false negatives, and incidentalomas can muddy the waters of clinical diagnosis. When a demented and delirious patient answers pointed questions incoherently, we cast a wider net to uncover the specific disorder. We order CT scans, chest x-rays, and more blood tests than we might with a more lucid patient.

In the end, we hope to find a discrete pathological process to treat, but often our work is more focused on ruling-out, rather than ruling-in, a diagnosis. It is difficult to treat a ruled-out diagnosis; hence, in addition to more tests, we provide intravenous fluids, oxygen, and empiric antibiotics. We cross our fingers and hope that we have effectively treated the relevant conditions. Our search for the elusive malady goes on.

Medicine’s occasionally erratic nature brings to mind Voltaire’s remark: “the art of medicine consists in amusing the patient while nature cures the disease.” But in these challenging cases, perhaps the art consists in embracing the vagaries of our work.

Sam Evans is a third-year resident in Brown’s internal medicine residency program.

MATCHDAY

Match Madness

Graduating students celebrate residency.

Members of the Alpert Medical School Class of 2011 gathered in Andrews Hall on March 17 at high noon to learn their fates. Match Day, an annual tradition for graduating medical students across the country, is an emotional moment—a celebration of four years of hard work. This year at Brown, 97 students learned the setting of the next stage of their medical careers (including 15 who matched in Rhode Island at Alpert Medical School-affiliated hospitals).

Check out the list of the diverse, highly competitive programs ready to welcome this batch of top-notch graduates.

ANESTHESIOLOGY

Ross Martini

- Oregon Health & Science University/Oregon Health & Science University School of Medicine

DERMATOLOGY

Nikki Tang

- St. Lukes-Roosevelt Hospital Center/Columbia University College of Physicians and Surgeons
- Einstein/Beth Israel Medical Center/Albert Einstein

College of Medicine
(Medicine-Prelim)

EMERGENCY MEDICINE

Nitin Aggarwal

- Vanderbilt University Medical Center/Vanderbilt University School of Medicine

Andrew Baum

- Hospital of the University of Pennsylvania/University of Pennsylvania School of Medicine

Ian Buchanan

- McMaster University/McMaster University Faculty of Health Sciences

Evan Leventhal

- Strong Memorial Hospital/University of Rochester School of Medicine & Dentistry

James Lincoln

- Christiana Care/Christiana Care Health Services

Zara Mathews

- Mount Sinai Hospital/Mount Sinai School of Medicine

Benjamin Schnapp


- Mount Sinai Hospital/Mount Sinai School of Medicine

Caroline Tschibelu

- University of Medicine and Dentistry of New Jersey-Robert Wood Johnson-Piscataway/UMDNJ-RW Johnson-Piscataway Medical School

Yvonne Wang

- Rhode Island Hospital/Alpert Medical School



THE LITTLE MATCH GIRL
Ginger Allister's ensemble revealed her background in fashion design.



GOOD TIMES
(Left) Bryan Beutel's friends Diana Moke and Jill Wei react to his news. (Center) Amanda Jacobson with her adorable puppy, Addy. (Right) Adam Vasconcellos will be staying close to his girlfriend, Mansi Shah MD'14.

FAMILY MEDICINE

Tina Charest

- Memorial Hospital of Rhode Island/Alpert Medical School

Marla Hansel

- Memorial Hospital of Rhode Island/Alpert Medical School

Micah Johnson

- Allina Hospitals & Clinics/Allina Hospitals & Clinics

Marshala Lee

- University of Maryland Medical Center/University of Maryland School of Medicine

Jessica Marrero

- Montefiore Medical Center/Albert Einstein College of Medicine

David Norris

- University of Washington Affiliated Hospitals/University of Washington School of Medicine

Jill Wei

- Santa Monica University of California-Los Angeles Medical Center/David Geffen School of Medicine at UCLA

Heidi Wilder

- Memorial Hospital of Rhode Island/Alpert Medical School

MEDICINE

Wilbur Allen

- Eisenhower Army Medical Center/Fort Gordon, Georgia

Ginger Allister

- Beth Israel Deaconess Medical Center/Harvard Medical School

Armando Bedoya

- Duke University Medical Center/Duke University School of Medicine

Erica Bromley

- University of California-Los Angeles Medical Center/David Geffen School of Medicine at UCLA

Sarah Fleisig

- Lenox Hill Hospital/North Shore-Long Island Jewish Medical Center

Jennifer Gao

- Massachusetts General Hospital/Harvard Medical School

Luke Godwin

- New York Presbyterian Hospital/Weill Cornell Medical College

Haynes Heaton

- Florida Hospital Medical Center/Florida Hospital Medical Center

Monica Kaitz

- Kaiser Permanente-San Francisco/Kaiser Permanente-San Francisco

Bharati Kalasapudi

- Johns Hopkins Hospital/Johns Hopkins University School of Medicine

Erich Kiehl

- University of Virginia/School of Medicine at the University of Virginia

Ajar Kochar

- Johns Hopkins Hospital/Johns Hopkins University School of Medicine

Danny Lee

- Harbor-University of

- California-Los Angeles Medical Center/David Geffen School of Medicine at UCLA

Steve Lee

- Boston University Medical Center/Boston University School of Medicine

Albert Lin

- Rhode Island Hospital/Alpert Medical School

Eric Mao

- Rhode Island Hospital/Alpert Medical School

Jennifer O'Brien

- Rhode Island Hospital/Alpert Medical School

Gregory Radin

- Boston University Medical Center/Boston University School of Medicine

Matthew Reilley

- Hospital of the University of Pennsylvania/University of Pennsylvania School of Medicine

Dhvani Shah

- Yale-New Haven Hospital/Yale School of Medicine

Adam Vasconcellos

- Brigham & Women's

MATCHDAY

Hospital/Harvard Medical School

MEDICINE/ PEDIATRICS

Sarah Dreiling

- Baystate Medical Center/ Tufts University School of Medicine

Erin Kelly

- Strong Memorial Hospital/University of Rochester School of Medicine & Dentistry

Diana Moke

- University of California- San Diego Medical Center/ UCSD Health System

David Washington

- Rhode Island Hospital/ Alpert Medical School

MEDICINE-PRELIM

JaeYoung You

- Rhode Island Hospital/ Alpert Medical School

MEDICINE-PRIMARY

Lucinda Leung

- University of California- Los Angeles Medical Center/ David Geffen School of Medicine at UCLA

David Margolius

- San Francisco General Hospital/University of California-San Francisco

Andrew Van Wieren

- Brigham & Women's Hospital/Harvard Medical School

NEUROLOGY

Brigid Dwyer

- Boston University Medical Center/Boston University School of Medicine
- Boston University Medical Center/Boston University School of Medicine (Medicine-Prelim)

Ian Lee

- Long Island Jewish Medical

Center/North Shore-Long Island Jewish Health System

- Allegheny General Hospital/ West Penn Allegheny Health System (Medicine-Prelim)

NEUROSURGERY

Ammar Shaikhouni

- Ohio State University/Ohio State University Medical Center

OBSTETRICS/ GYNECOLOGY

Darcy Broughton

- Oregon Health & Science University/Oregon Health & Science University School of Medicine

Alicia Carranza

- Mount Sinai Hospital/Mount Sinai School of Medicine

Frank Crespo

- Jackson Memorial Hospital/University of Miami Miller Medical School

Ala (Alicja) Kreczko

- Women & Infants Hospital/ Alpert Medical School

Dominique Malacarne

- New York University School of Medicine/NYU School of Medicine

Amity Marriott

- University of Minnesota Medical School/University of Minnesota Medical School

Carleyna Nunes

- University of Arizona Affiliated Hospitals/ University of Arizona College of Medicine

OPHTHALMOLOGY

Natalie Cheung

- Case Affiliated Hospitals/

Case Western Reserve University School of Medicine

- Wisconsin Affiliated Hospitals/Medical College of Wisconsin (Surgery-Prelim)

Eileen Myers

- University Hospital/ University of Cincinnati College of Medicine
- Indiana University School of Medicine/Indiana University School of Medicine (Trans.)

Carly Seidman

- New York University School of Medicine/NYU School of Medicine
- North Shore-Long Island Jewish Health System/ North Shore-Long Island Jewish Health System (Medicine-Prelim)

ORTHOPAEDIC SURGERY

Bryan Beutel

- Hospital for Joint Diseases/ New York University School of Medicine

Matthew Deren

- Rhode Island Hospital/ Alpert Medical School

Ross Feller

- Rhode Island Hospital/ Alpert Medical School

Samir Trehan

- Hospital for Special Surgery/ Weill Cornell Medical College

PEDIATRICS

Laura Dawson

- University of Massachusetts/ University of Massachusetts Medical School

Almaz Dessie

- Children's Hospital Oakland/



YOU GO, GIRL
Andrea Dean
jumps into the
arms of Caroline
Tschibelu.



FASTER, PLEASE

Liz Anto waits patiently behind **Nitin Aggarwal**. (Right) **Ross Feller** and **Wilbur Allen**.

Children's Hospital & Research Center Oakland

James Enos

- New York Presbyterian Hospital/Weill Cornell Medical College

Amanda Jacobson

- University of Virginia/ School of Medicine at the University of Virginia

Bonnie Lau

- Tufts Medical Center/Tufts University School of Medicine

Bridget Malit

- New York Presbyterian Hospital/Weill Cornell Medical College

Virginia Sanders

- University of Washington Affiliated Hospitals/ University of Washington School of Medicine

Candice Sheldon

- University of Connecticut Health Center/University of Connecticut School of Medicine

Queenie Tan

- Duke University Medical Center/Duke University School of Medicine

Alicia Thompson

- Advocate Christ Medical Center/Advocate Christ Medical Center



Sienna Vorono

- Rhode Island Hospital/ Alpert Medical School

PEDIATRICS/ GLOBAL HEALTH

Andrea Dean

- Baylor College of Medicine/ Baylor College of Medicine

PLASTIC SURGERY

Bella Avanessian

- Rhode Island Hospital/ Alpert Medical School
- Rhode Island Hospital/ Alpert Medical School (Surgery-Prelim)

John Shuck

- Georgetown University Hospital/Georgetown University School of Medicine

PSYCHIATRY

Elizabeth Anto

- New York University School of Medicine/NYU School of Medicine

Pojen Deng

- New York University

School of Medicine/NYU School of Medicine

Xiaojue Hu

- New York University School of Medicine/NYU School of Medicine

Raymond Serrano

- Boston University Medical Center/Boston University School of Medicine

RADIATION ONCOLOGY

Christina Cramer

- Duke University Medical Center/Duke University School of Medicine
- University of Chicago Medical Center/University of Chicago Medical Center (Medicine-Prelim)

Sagar Patel

- University of Iowa Hospitals & Clinics/ University of Iowa Hospitals & Clinics
- Earl K. Long Medical Center/ Louisiana State University-Baton Rouge (Medicine-Prelim)

RADIOLOGY

Ryan Tai

- Brigham & Women's Hospital/Harvard Medical School
- Roger Williams Medical Center/Tufts University School of Medicine (Medicine-Prelim)

SURGERY

Laura Grimmer

- Rush University Medical Center/Rush University Medical College

Krista Hachey

- Boston University Medical

Center/Boston University School of Medicine

Tanya Rinderknecht

- Stanford University/ Stanford University School of Medicine

Brenna Sullivan

- Georgetown University Hospital/Georgetown University School of Medicine

Portia Thurmond

- Dartmouth-Hitchcock Medical Center/Dartmouth Medical School

Patrick Worth

- Oregon Health & Science University/Oregon Health & Science University School of Medicine

SURGERY-PRELIM

Joel Huleatt

- University of California-Los Angeles Medical Center/ David Geffen School of Medicine at UCLA

Peter Than

- Stanford University Programs/ Stanford University School of Medicine

UROLOGY

Zachary Gordon

- Ohio State University Hospital/Ohio State University College of Medicine
- Ohio State University Hospital/Ohio State University College of Medicine (Surgery-Prelim)

VASCULAR SURGERY

Sareh Rajaei

- Yale-New Haven Hospital/ Yale School of Medicine



MEDICINE AVENUE

Sometimes, the best laid plans are less fulfilling than the surprises life has in store.



BY SARAH BALDWIN-BENEICH
PHOTOGRAPHY BY WEBB CHAPPELL

In 2006, Michael Tso '90 MD'94 and his wife, Emily Chin Tso '91, were enjoying life in Portland, Oregon. Michael was a partner in a successful family medicine practice. Emily, trained as a teacher, was home raising their four children. They had worked hard to weave their lives into a richly textured community: they had lots of friends, attended church a few blocks from their home, and volunteered—all six of them—in one of Portland's few homeless shelters for families.

Then, in November of that year, Tso heard Stan Farmer preach.

Worship through music and testimony is integral to the rhythm and fabric of the His Mansion community.

Farmer is a co-founder of His Mansion Ministries, a long-term residential treatment center on a working farm in southwestern New Hampshire. He conceived His Mansion in the '70s as a welcoming place of worship and rehab for drugged-out hippies. Today it is a Christ-centered healing community for “broken and hurting” young people who are struggling with an array of problems, from eating disorders to heroin addiction.

At the time of Farmer's sermon, Michael and Emily, both devout Christians, had been looking for a new service project they could embark on as a family, preferably outdoors and beyond the familiar comforts of Portland. When Tso learned His Mansion offered short-term service opportunities, from gardening to facilities maintenance, the idea was too appealing to pass up. On vacation back East the following August, the family added the Granite State to their itinerary. Emily and the kids spent five days thinning carrots and picking broccoli, while Michael taught staff members about bipolar disorder and ADHD and did consults.

Tso loved His Mansion at once. “I felt like I saw Jesus walking around,” he recalls now. “I saw young men and women who had really hit the bottom of the barrel of life. Yes, they have their bad days ... [but] they had faith in a God who really loves them and wants to give them a chance for a fruitful life. There was a redemptive piece that unfortunately I don't always see in the church.”

Back home, Tso (pronounced “cho”) couldn't get the place out of his mind. Unbeknownst to him, neither could Emily. Michael went to a nearby Catholic





The counseling team discusses the care of residents and staff.

retreat center to sit quietly, journal, and pray. According to him, “God said ‘Call His Mansion.’ I asked Emily, and she said ‘Go for it.’” Tso called Stan.

“Do you remember who I am?”

“Yes.”

“My family and I would like to come back.”

“Anytime!”

“No, we’d like to come and work long-term.”

Silence.

“I think you should,” Farmer finally answered. “I think you should be director of the Institute.”

Tso laughs incredulously as he remembers the call. “At the time, there *was* no institute!” he explains. “It was just a dream Stan had.” But the dream started a conversation, and in the end Tso made a five-year commitment to create His Mansion Institute, the training arm of His Mansion Ministries that would focus on staff training, internships (for college students interested in practical ministry), replication (of their healing community model), and research (to understand why what’s working works).

The decision to pull up roots and drive across the continent to start a new life in August 2008—with no salary, a large family to support, in close quarters with recovering addicts and survivors of

all sorts of trauma and violence—might seem at odds with Tso’s self-described type-A personality. But it spoke directly to two fundamental drivers in his life: the desire to serve Christ and the quest for community.

Community, Tso is quick to point out, is not about people living together in blissed-out harmony. On the contrary, it represents an indivisible pairing of imperfection and commitment, where members are at once flawed—“broken”—and devoted to each other (and to God) *in spite of* those flaws. For Tso community

“God knew I needed something that would counteract this hard-driven personality.”

is, if not forged in adversity, strengthened by its own shortcomings and the very struggle to remain true to it.

And so, united at His Mansion Tso found the essential life ingredients he’d been seeking: a community based on faith, an opportunity to help others, and that brokenness that made it all mean something more.

MISSIONARY MANQUÉ

A Christian counseling center in rural New England was a far cry from the

community Tso had long imagined he’d serve.

It was on a mission trip to the Dominican Republic during his sophomore year of high school that Tso’s vision of himself doing God’s work had begun to take shape. In his mind, “God would send me off to the Amazon forest, where I would die of some terrible disease at the age of 35 as a missionary. I thought that’s what real Christians did,” he says with a rueful chuckle. Subsequent trips to China refined his idea of overseas service.

“I wanted to train doctors and people in the underground church [religious assemblies in China not sanctioned by the government] who had had little opportunity for good theological education. ... I wanted to be an equippier to [those] people,” says Tso.

First, though, came college and medical school, parental expectations *obligent*. (Tso’s parents had both come to the US from Hong Kong with very little,

and his father became a professor of ophthalmology at the University of Illinois. Tso attributes much of his academic drive to his culture and family background.) Curiously for someone so focused, he applied to Brown’s Program in Liberal Medical Education. “I had worked hard, done the ‘model minority’ thing,” he explains. “God knew I needed something that would counteract this hard-driven personality. I needed a school where exploration ... would be a fruitful experience. Brown is very much that.”

Tso declared himself a comparative literature concentrator, specializing in East Asian literature.

Though ideal for intellectual exploration, Brown might not seem the most hospitable place for an extremely devout young person. “I got some hassles along the way,” Tso admits amiably, “but that’s not without its advantages. Brown challenged me to own my faith. ‘Do I really believe this? Do I really buy into this walk of following Jesus Christ?’ It was a real questioning period for me.”

Tso also questioned his future as a

doctor—twice: once toward the end of his freshman year, and again during his junior year in the late ’80s.

“My heart was really drawn to China, and not just because I’m Chinese. China was just opening up at the time. As a Christian there were only two options: you could come as an English teacher or as a physician. Comp lit would not get me into China. ... In the end medicine was chosen as an avenue to get me to the overseas field.”

Barely 20, Tso saw his future as clearly as the table of contents of his

autobiography. First, finish medical school. Then, “after three years of residency I thought I’d have a couple years in practice, raise my support to serve in China.”

DETOUR AHEAD

During med school, Tso was deeply influenced by the early giants of family medicine at Brown. Dr. Alicia Monroe, he recalls, “was one of the most brilliant and thoughtful family physicians I had ever met. Her calm, her resolve, and her insight were an inspiration to me.” He

Nathan Hasme, a resident, works the burn pile of scraps. It takes 250 cord of wood to heat His Mansion each winter.



describes Dr. Vincent Hunt, then chair of the department, as “an entrepreneur in international family medicine. He was an evangelist for family medicine in many second- and third-world countries [with an] ability to bring people together.”

But Tso momentarily toyed with another specialty. In 1991, as part of the Medical School’s Eighth Semester Program, he had collaborated with Dr. William Grapentine, then the adolescent psychiatrist at Bradley Hospital’s inpatient unit, on a study of how adolescents view their own mental illness. This work had revealed how well suited Tso was to treating “crazy teenagers,” as he affectionately calls them, and he had been encouraged to pursue adolescent psychiatry. In the end, though, he hadn’t been able to resign himself to “give up the touch and feel of medicine for talk.”

Opting to pursue family medicine, Tso trained in one of the country’s best residency programs, at Oregon Health



Tso enjoys two to three meals in the dining hall each week as a chance to converse with residents and staff.

league Daniel Crawford, a physician Tso admired as much for his “integrity, steadiness, discernment, and wisdom” as for his mission work in Indonesia, stepped down as chair of family medicine at Portland Adventist Medical Center, he invited Tso to take his place. Tso accepted.

It was at South Tabor that Tso finally got to incorporate more mental health care into his practice—specifically, patients with ADHD.

Says Tso: “I started treating some patients and had some amazing results and thought, ‘Hey, this works, this is

of his own practice consisted of psychiatric visits.

By the time Stan Farmer came to town, Tso had put his China plans on hold.

ON THE HILL

The town of Deering, where His Mansion is located, constitutes the west angle of the isosceles triangle it forms with Concord and Manchester. To get there you have to drive up and out of tired, forgotten-feeling mill towns and into the foothills of the White Mountains, where “TOOL REPAIR & RENTAL” billboards are replaced by signs announcing “FROST HEAVES” and “AFFORDABLE TREE WORK.” Modest vinyl-sided homes give way to clapboard farmhouses, many with attached barns—some painted yellow or white, some of weathered wood. Skimobiles perch on high piles of old snow, For Sale signs on their windshields.

Located at the end of a long private dirt road, His Mansion spreads over 360 acres. At the heart of this land is a 30-acre campus comprising a cluster of office and educational buildings, dormitories, a dining hall, well house, fishpond, chapel-cum-gymnasium, greenhouse, and an 18th-century barn. One hundred people live here, 40 of them residents (as the

“The parents wanted a person of faith who would take seriously the spiritual aspects of this child.”

and Science University (OHSU), and went on to join a family practice clinic. But not just any clinic.

“Like Brown, OHSU was quite secular, meaning faith didn’t have much room to express itself in that environment. So I joined a practice [South Tabor Family Physicians] where the partners were people of faith.” Tso thrived there, taking care of kids and families, becoming a partner and medical director. When col-

real!” I started to self-teach and go to conferences, I talked to experts in the field.” He also got himself up to speed on pediatric and adult bipolar disorder. “It was very difficult to get psych treatment in Portland at the time. I even had a bipolar kid who drove six hours to see me. [The parents] wanted a person of faith who would take seriously the spiritual aspects of this child and their spiritual faith,” Tso recalls. Soon 30 to 40 percent

individuals in treatment are called) aged 18 to 35, along with eight head of cattle, half a dozen pigs, a few dozen chickens, and two barn cats.

His Mansion seeks to be as self-sustaining as possible, and relies almost entirely on the labor of staff and residents and donations. They raise the chickens for eggs and the cattle and pigs for meat. In the fields spread out below the buildings, they grow vegetables, which they can themselves. All 18 buildings, including Tso's house, are heated by wood, much of which they harvest year-round from their forests. There is no fee for residents accepted into the one-year program, and staff receive no salary or benefits (save an unlimited supply of maple syrup from His Mansion's own trees).

His Mansion's faith-based approach is strongly rooted in structure, spiritual formation, and, of course, community. Residents know that life on the hill comes with a strict code of conduct: men and women are allowed only "limited casual relating;" at meals, one must ask to be excused from the table; dress must be modest; and all music and books must be screened. Each day begins at 6:30 and consists of an intricate schedule of chores, classes, group counseling, worship, and Bible study.

Tso explains that the goal of treatment is for residents—many of whom have unsuccessfully attempted other rehabilitation programs—to "develop self-capability" and go out and serve their communities, to be "contributors, not consumers." Many have had negative relationships—whether with parents, lovers, or fellow substances abusers. "In medicine we talk a lot about the bio-



The doctor stokes his own wood stove every six hours.

"We are a grace-filled community that has consequences."

psycho-social model, but there's very little emphasis on 'social,'" Tso says. "We live in a very individualistic society, but we were designed to be in relationships—that is, in community—"so we need to recast unhealthy relationships."

Part of this is achieved, according to Tso, by teaching residents to recognize and thereby modify their unhealthy behaviors. "If you avoid brokenness you'll probably continue to act out. You must face it, understand your behavior. Find its root cause." One method is through

the sociogram. At His Mansion, this is not a visual representation of one's social network but a description of one's qualities and shortcomings through the eyes of his fellow residents. The idea behind such "healthy confrontation," Tso explains, is an end to self-deception. "Many say [being here] is harder than jail, because in jail you don't have to look at yourself."

While difficult work is done with a great deal of support, Tso is quick to add that support is not tantamount to the

“rescuing” that is rampant in today’s society. He sums it up this way: “We are a grace-filled community that has consequences.”

It’s mud season in New Hampshire, but when the clouds clear and you look off in to the blues, grays, and greens of the distant White Mountains, it’s not impossible to imagine residents never wanting to leave the hill. Tso concedes that while the staff think of graduation as “pay day,” many residents are fearful of the temptations that lie beyond His Mansion’s chaste, substance-free campus. Indeed, some opt to transition to one of two “growth centers”—one in Connecticut, one in Michigan—which still offer structure but also freedoms (such as holding a job) and responsibilities (such as paying rent). Others apply to become staff members.

As director of training and a member of the senior management team, Tso spends his days teaching, equipping, and mentoring staff, liaising with churches and universities, serving as a sounding board for the center’s leadership, even doing first-aid triage. Though



Emily, second from left, homeschools the children: Francesca, 14, Garri-son, 7, Dawson, 10, and Viviana, 12. Michael is in charge of “read-alouds.”

not at His Mansion in the capacity of a physician, Tso re-boards, keeps up with CME, and buys malpractice insurance—all on his own dime. And he pre-cepts family medicine residents at Concord Hospital Family Health Center in

nearby Hillsborough, a training site of Concord Hospital’s Dartmouth-affiliated residency, twice a month.

Does he miss day-to-day doctoring? “Medicine has been a tremendous training ground for me in my personal development,” says Tso. “I’ve learned how to think organizationally, to think about people’s psychological, social, community needs. I’ve learned so much that I don’t feel that if I ever left medicine the training would be wasted.

“I could never have predicted that God would use the path of medicine to prepare me for the incredible work I get the privilege to do here. Life in Christ is full of twists and turns, and the unexpected often results in possibilities, richness, and communion beyond our wildest imagination. For this I am inexpressibly grateful.”

One of His Mansion’s six pigs takes a nap in the 18th-century barn.

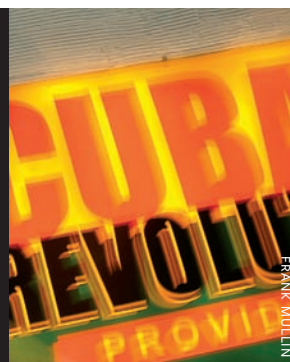




Buddy
Cianci



The East Bay Bike Path



"Watching sports games
at Cuban Revolution."



"The service at Sakura."

Parting

"The creatively brilliant yet
somewhat controversial
advertisements for 'Date-a-
Doctor' charity
auctions."

HOW DO FOUR YEARS FLY BY SO QUICKLY?

Students of the Class of MD'11 at Alpert Medical School are preparing to move on to the next phase of their careers. Before they go,

Brown Medicine asked them to look back, get nostalgic, and share some of the people, places, and things from their time at Brown and in Providence that will stick in their memories most vividly. Here's what they'll be pining for.



Zack Gordon's magic
tricks



"The hipsters."



"The incredible therapy
dogs, Liberty and
Independence, that
frequent Rhode Island
Hospital, Hasbro,
and The Miriam."



"Discussions with
Dr. Feller."

Red velvet cupcakes
from The Edge





Director of Medical Student
Affairs Alex Morang



WaterFire



"The What
Cheer? Brigade."



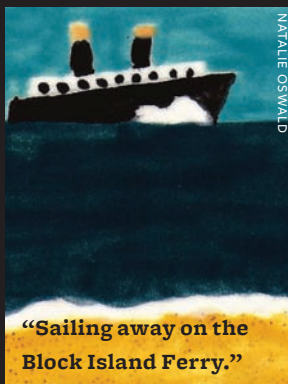
Cookies from Meeting
Street Cafe



"Wednesdays off
during 2nd year!"



Seven Stars Bakery's
olive bread



"Sailing away on the
Block Island Ferry."

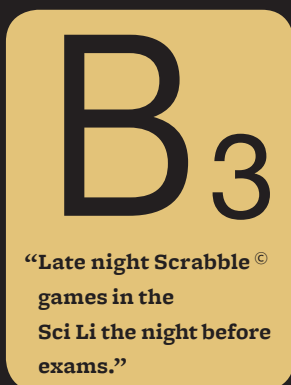


Prospect Park

Glances



"Strolls to Rick's
Roadhouse."



"Late night Scrabble[®]
games in the
Sci Li the night before
exams."



"Dr. Daithi Heffernan's
surgery lectures."



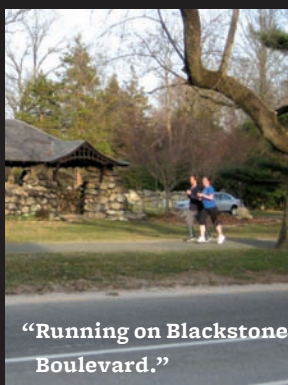
"Going to
Brown-sponsored
lectures."



The buffalo chicken wrap
from Rhode Island Hospital

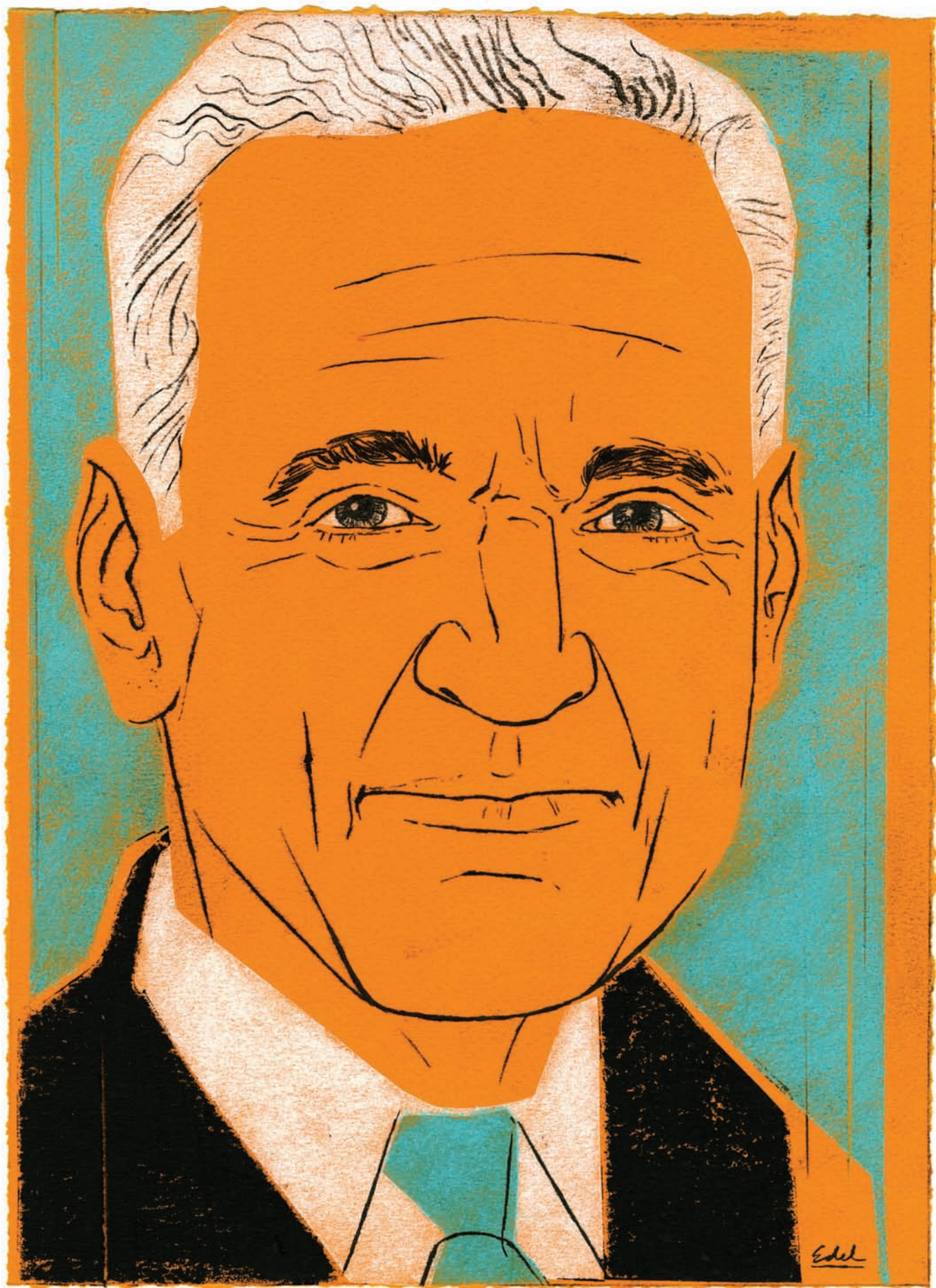


"All-nighters in the
BioMedical Center."



"Running on Blackstone
Boulevard."

*"The constant
presence
of the many
phenomenal
people I have
met here."*



As I See It

✱ AN EXCERPT

A pioneering black surgeon shines a light on the inequalities, both flagrant and subtle, that afflict medical care in America.

ILLUSTRATION BY EDEL RODRIGUEZ

If you're going to have a heart attack, an organ transplant, or a joint replacement, here's the key to getting the very best medical care: be a white, straight, middle-class male. In *Seeing Patients: Unconscious Bias in Health Care*, Dr. Augustus A. White III and David Chanoff take on bias in medical care—an injustice still very much a part of our troubled health care system.

White shares his compelling journey from his childhood in Jim Crow-era Tennessee to his current professorship at Harvard Medical School, with career-

making stops along the way at Brown, Stanford, Michigan, Vietnam, Karolinska Institute, and Yale. In *Seeing Patients* he draws upon these experiences to explore what bias and cultural competency mean for health care in a diverse 21st-century America.

As an undergraduate at Brown, White was a great athlete as well as a star scholar. He was one of four African American students in his class and broke the fraternity color barrier when he was elected president of Delta Upsilon. More recently, he served on Brown's Board of Fellows for 11

years and has been an Alumni Trustee for five.

White and co-author David Chanoff use extensive research to show how subconscious stereotyping influences doctor-patient interactions, diagnosis, and treatment. Their book brings together insights from the worlds of social psychology, neuroscience, and clinical practice to define the issues and, most importantly, outline solutions to fix them.



As

**minorities come
come into our**

institutions in leadership roles, the inbred psychology of prejudice will erode over time. To some degree it has already. It will continue to do so. Other forces also contribute to the process. In his book *Privilege, Power, and Difference*, sociologist Allan Johnson describes the effect of individuals taking small steps to bring about change in their own spheres of influence. “You don’t have to do anything dramatic or earth-shaking to help change happen,” he says. “As powerful as systems of privilege are, they cannot stand the strain of lots of people doing something about it.” In the medical world, it isn’t necessary to wait for global changes in education or new health legislation in order for doctors to make changes in how they conduct their own practices. When I discuss these subjects with peers, I often say that at

bottom, to significantly diminish disparities in health care all we really need to do is treat all our patients as if they were family or friends. That’s something we can all accomplish within our own spheres. It may not address the complexities of unequal treatment, but it is a powerful and do-able first step.

I don’t believe that simple appeal—to treat patients like family and friends—is completely naïve. The reason I don’t think so is that, in fact, a physician’s work is humanitarian at its core. In practicing modern medicine, permeated as it is with sophisticated science, elaborate tests and high tech devices and procedures, it’s easy to lose sight of the fact that patient care means care of the patient. What, after all, is a doctor’s function? What is it that they actually do? The answer is that doctors heal their fellow human beings. A physician may be a scientist, a statistician, a device maker, a

high-level technician, but in essence he or she is a human being who takes care of other human beings. And these other human beings he or she cares for—all are, to one degree or another, strangers. And that—caring for strangers, caring for strangers as if they were your own—is, I think, as good a definition as one could give of what it means to be a humanitarian.

In that way doctoring is, perhaps, *the* paradigmatic humanitarian profession. Because it is, doctors should by rights see themselves—and they should be seen by others—as humanitarian role models. And that is one reason unequal health care is so corrosive to society’s values. Not only is disparate care profoundly unjust, its injustice is carried out by a profession that should be a leading exemplar of the egalitarian and humanitarian spirit.



In

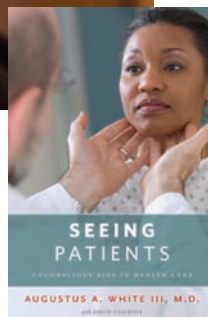
my own life in medicine I have been a clinician

and I have been an educator. My homes have been the doctor’s office and the university. In considering how to cut the Gordian knot of disparate care, the hopes I have center on these two settings.

First, I would like to leave a strong hope and challenge to medical schools. I believe it’s incumbent on them to strategically direct energy and resources toward developing the humanitarian, patient-centered, culturally competent aspects of medicine and to institutionalize this direction as a mainstream goal, to make it more than a half-hearted acknowledgement or afterthought and



President Ruth Simmons, above, attended White's March 2 lecture at Brown, titled "U.S. Healthcare Disparities: What We Need To Know." The lecture was followed by a reception and book signing. Visit med.brown.edu/omma/ to view a video of White's lecture.



pursue it as a core mission, equal in importance to other important missions of the schools. We have till now gestured towards and toyed with these concepts, but we have not forcefully resolved, with the required resources, determination and commitment, to give humane medicine a substantial role in our leading medical schools.

Second, for the practicing physician. We all know that many, if not most students arrive in medical school imbued with idealism and a sense of humane purpose. We most likely came in that way ourselves. But all too often that humane purpose gets diluted along the way. It gets lost among the pressures

and rigors of training, among the conditioning effects of the biomedical culture. It is assaulted by the callousness of the informal curriculum we pick up in the hallways and from some of our teachers and supervisors. It recedes before the mountain of debt we incur for our education.

But practicing medicine is something that should allow us to keep in close touch with our ideals; it should appeal day in and day out to the satisfaction and pleasure that we expected to get out of being a doctor. I don't know how many doctors experience this or don't experience it. But I can tell you that I don't think it's part of the culture.

I think the culture tends to downplay the joy of fixing something that's wrong, of helping the patient. I know that when I've emphasized this in professional meetings I've felt like I was pointing up something that's not quite within the approved guidelines. But it should be. Give yourself a chance to be fulfilled by what you are doing. Seize on that. It's okay. Seize on it and appreciate it.

That's really what humanitarian medicine—egalitarian medicine—is about. Its key words are empathy, cooperation, and communication. Humanitarian medicine is what I like to call win, win, win. The patient wins. The doctor wins. The society wins in improving the health of the whole population, minority as well as mainstream. It wins for us all in a larger sense too, in providing a model for the spirit of community and mutual care that we so urgently need, and so lack, in our increasingly splintered and sectarian world.

ABOUT THE AUTHORS

Augustus A. White III, MD, PhD '57 DMS '97 hon., P'98 is the Ellen and Melvin Gordon Distinguished Professor of Medical Education and professor of orthopaedic surgery at Harvard Medical School, and the first African American department chief at Harvard's teaching hospitals.

David Chanoff has written about current affairs, foreign policy, education, refugee issues, literary history, and other subjects for such publications as the New York Times Magazine, the Wall Street Journal, and The American Scholar. He lives in Massachusetts.

MOMENTUM

A Mother's Pride

With a gift to the new Medical School,
a beloved faculty member stays close in our hearts.

Flora A. Coletta worked for the Warwick Post Office for 63 years before her retirement in 2009, and she has lived in Warwick all her life. It was there that she raised her daughter, Elise M. Coletta, who brought her much joy. Mrs. Coletta describes Elise as an intelligent and motivated child, excelling as a student at Bay View Academy, then Providence College, and eventually Pritzker School of Medicine. When asked if her daughter always wanted to be a doctor, Mrs. Coletta says that was not the case. “I think

it was when she received the Biology Award her freshman year at Providence College,” she says. “That, along with some strong words of encouragement from a faculty adviser put her on that path.” As it turned out, medicine was a perfect fit.

Dr. Coletta returned to her home state for her residency in family medicine at Memorial Hospital of Rhode Island in Pawtucket. She went on to become a clinical associate professor in Brown’s Department of Family Medicine and chief of gerontology at Memorial Hospital. Dr. Coletta worked there for nearly 20 years before she passed away in 2003.

To honor her memory, Mrs. Coletta, along with a number of family, friends, and colleagues, started the Elise M. Coletta, MD, Educational Leadership Endowment Fund, an ever-growing source of support for the Department’s academic mission. Now, with a recent gift from Mrs. Coletta to the new

Medical School building, an examination room in the Clinical Skills Simulation Center will bear Dr. Coletta’s name, and with it, a new chapter of her daughter’s legacy begins.

The Clinical Skills Simulation Center replicates the environment in which the doctor-patient relationship takes place. Taking an accurate history, giving a physical exam, coming up with a diagnosis, explaining tests and treatment options to the patient—these components of doctoring will be taught in this space. Students will be able to view recordings of their interactions with standardized patients and receive vital feedback from instructors on how to communicate more effectively. According to Mrs. Coletta, her daughter was known for her dedication to teaching, and advancing medical education remained a priority throughout her career. She also had a passion for patient care, which makes the new clinical exam rooms, specifically designed to help make students better communicators, another perfect fit.

Over the past several years, Mrs. Coletta has kept in touch with her daughter’s colleagues in the Department of Family Medicine, and the pride she feels for Elise’s impact is clear: “I received many letters from her patients after she passed,” Flora says, “and it was easy to see how meaningful Elise’s care was to them. Also, her colleagues used to send their parents to her, so you know she was something special.”

Mrs. Coletta hopes that this gift will be another lasting way for her daughter to be remembered for her many talents as a physician and teacher.

—Amy R. Umstadter

COURTESY WARWICK BEACON; COURTESY MEMORIAL HOSPITAL OF RHODE ISLAND



Above, Flora Coletta at work in the Warwick Post Office. At right, Dr. Elise Coletta before her death in 2003.

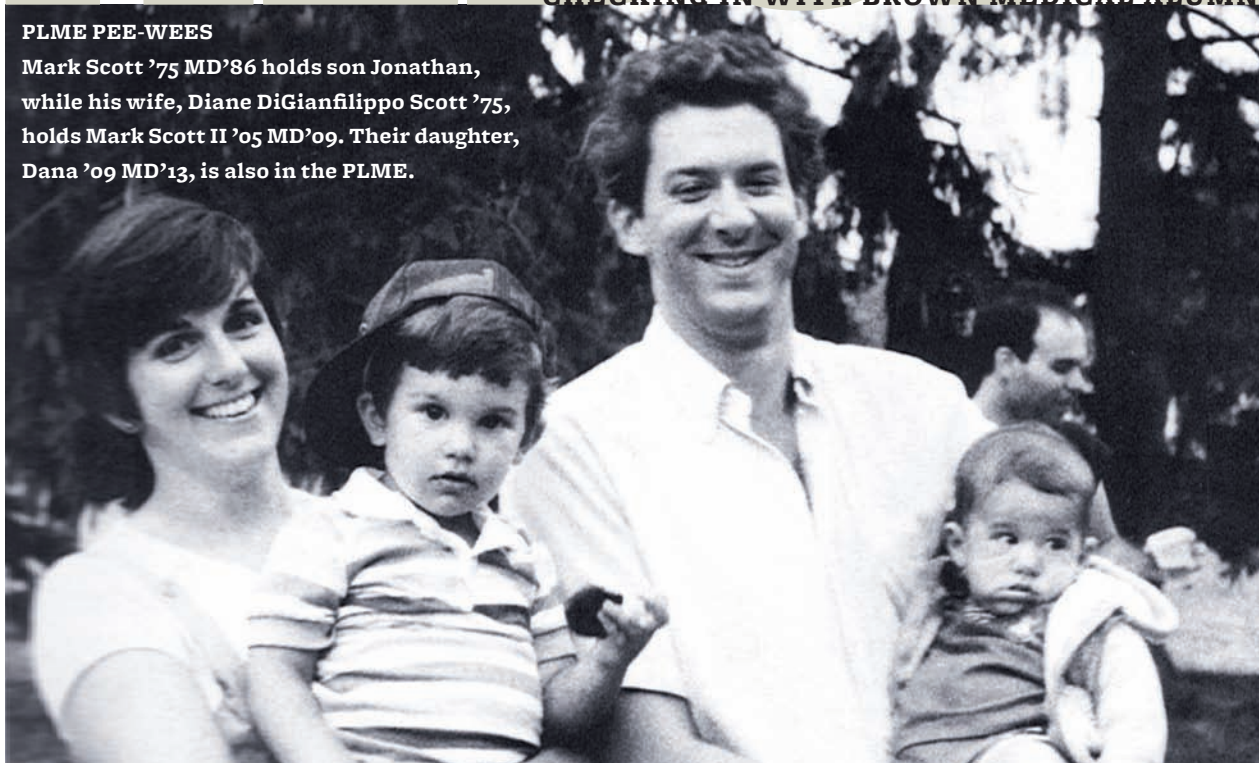


ALUMNI ALBUM

CHECKING IN WITH BROWN MEDICAL ALUMNI

PLME PEE-WEES

Mark Scott '75 MD'86 holds son Jonathan, while his wife, Diane DiGianfilippo Scott '75, holds Mark Scott II '05 MD'09. Their daughter, Dana '09 MD'13, is also in the PLME.



CLASSNOTES

1978

Paul Broomfield '75 works in a private practice on Long Island, NY, with six other doctors doing gastroenterology exclusively. He and his wife, **Iris Broomfield** '77, have two children: Elizabeth and Mark.

David V. Diamond '75 is associate director of the MIT Medical Department, a multi-specialty group practice serving the 25,000 members of the MIT

community. In addition, David is a consultant to the MIT community as the chief of Occupational and Environmental Medicine. He was recently elected secretary/treasurer of the New England College of Occupational and Environmental Medicine. David has four children: Forrest, 19, an MIT undergraduate, Holden, 17, starting at the University of Rochester in the fall, Bram, 16, and Eden, 14.

Thomas C. Platt '75 RES'81 is medical director of Cherry Street Health Services, a federally qualified

community health center with 12 locations surrounding Grand Rapids, MI.

1983

Mitchell Lester '79 has been part of Fairfield County Allergy, Asthma, and

GOT NEWS?

Career news, weddings, births, reunions...it's all good. Go to med.brown.edu/alumni and click on "Fill us in."

ALUMNIALBUM

EYE
ON ALUMNI

No Bureaucracy Here HIV-infected patients get essential resources.

As deputy associate administrator of the HIV/AIDS Bureau in the US Department of Health and Human Services' Health Resources and Services Administration (HRSA), Laura Cheever '87 MD'90 has a demanding set of responsibilities. The Bureau delivers treatment and support services to about 530,000 uninsured and underinsured people affected by the virus.

What is Cheever's greatest challenge? "Identifying and linking to care individuals in the US who are not in care, and identifying [HIV patients] before they become sick with AIDS," she says.

The CDC estimates that more than 20 percent of HIV-infected individuals in the US don't know their status—and that 33 percent of those who do are not engaged in care.

Cheever's chief priority, she says, is ensuring that "poor and disenfranchised patients get the best quality

of care." To this end, she encourages physicians on her team to regularly treat patients, as she does at Johns Hopkins. "If I'm making policy decisions in DC, a great way to understand the issues on the ground is by providing care. You can see the reality of barriers when you are confronted by them."

The Ryan White HIV/AIDS Program, which is administered by Cheever's agency, was designed to help remove such barriers. The \$2.2 billion Program was "crafted so that we don't just fund medical care," says Cheever. A portion of its funding is used for transportation to, and child care in, the clinic—as well as for emergency food and housing services. "We help those living on the margins," Cheever says.

The Program also provides critical medical care: one of every four patients in the US who receive HIV/AIDS

In the US providers are "aging out,"
and younger providers are largely
drawn to **international HIV/AIDS work.**

drugs obtains them through Cheever's agency. The program has spurred the creation of an integrated, multidisciplinary, and coordinated model of care for uninsured and underinsured individuals living with HIV in the US.

While the Program consistently receives strong bipartisan federal support, Cheever anticipates new challenges. People with HIV/AIDS are living longer, and new cases of infection are constant—resulting in a higher overall prevalence. At the same time, providers caring for patients with the disease in the US are "aging out," and younger providers are largely drawn to international HIV/AIDS work. To address that challenge, HRSA works with the National Health Service Corps, which offers loan repayments or scholarships to medical providers who agree to work in medically underserved areas.

The recipient of more than two dozen prestigious awards, Cheever calls receiving the 2006 Arthur S. Flemming Award, which honors outstanding federal employees, an "especially proud moment." HRSA is "very collaborative," she says. "It's not a culture where I expect to get recognition for my individual achievement."

—Nancy Kirsch

Laura Cheever '87 MD'90

COURTESY CHEEVER

Immunology Associates private practice in Norwalk, CT, since leaving Boston Children's Hospital in 1999. He also "recently started a study of oral peanut desensitization (the first outside a tertiary care center) with colleagues in West Hartford. We have enrolled 50 patients (largest series to date) with success."

Nicholas Sadovnikoff is co-director of Brigham & Women's Hospital's surgical intensive care unit in Boston. He is also director of the BWH Fellowship in Anesthesiology Critical Care. His wife, Marcie Rubin, MD, works at Beth Israel Deaconess Medical Center. They have three children: Derek, 20; Fredericka, 18; and Sophie, 14. Nicholas writes, "I see a lot of **Galen Henderson MD'93** and work closely with him as he is co-director of the Neuro ICU."

Marie-Florence Shadlen '79 recently joined New York Methodist Hospital's Department of Medicine as chief of geriatrics and palliative care. Florence was previously chief of geriatrics at the Veterans Affairs New York Harbor Healthcare System's Brooklyn campus. She is board certified in both internal and geriatric medicine and has completed fellowships in geriatric medicine at Brown and Stanford University. Florence will be in charge of palliative care, a relatively new branch of medicine in which she sees a lot of hope: "A recent study published in the *New England Journal of Medicine* reports that people receiving palliative care live longer than those who have not received the benefits of a team approach to enhance their quality of life," she says.

1985

Nadine Cartwright-Lowe '82, P'07, '10 joined Pinnacle Educational Center's

health education and health coaching practice. Pinnacle Educational Center is an educational, career, and life services firm located in Woodbridge, CT. "I like to educate people about their personal health," says Nadine about her new position. "Health education and health coaching empowers people and provides them with the knowledge to stay healthy and feel well." Nadine is also president and founder of the Center for Personal Health, a complementary, alternative, and internal medicine practice, emphasizing weight loss and management, exercise, aromatherapy, and health education.

1986

Edward Chu '83 is the Cardiovascular Service Line chief at the Riverside Health System in Virginia. His wife, Kimberly Ratcliffe, MD, also works at Riverside Health Group. Edward writes, "Brandon, 10, and Samantha, 8, are the shining stars of my life, and Kim, my wife of 13 years, is the wind beneath my wings."

Marlene Cutitar '83 RES'92 was honored in May by the Rhode Island Medical Women's Association (RIMWA) as the 2011 Woman Physician of the Year. Marlene has a private surgical

member, Dr. Cutitar has made a difference throughout our community. She has left her mark in the lives of the patients she serves, in the RIMWA community, and in the careers of the women health care providers of Rhode Island."

1988

James Welters '85 is chief medical officer at Northwest Family Physicians, an independent family medicine group with 15 doctors located in the northwestern suburbs of Minneapolis. His clinic recently received a statewide Health Care Innovation Award for quality improvement and successfully involved all staff in improving care for patients using a novel bonus program. James is also on the faculty of the Normandale Community College Health IT program, training and consulting with staff and physicians for EHR implementation.


1990

Gwyn M. Cattell '85 writes, "Classmates may remember me not walking the usual paths. Well, it is still true. I made it through a residency (including a second internship in my late 40s), survived a difficult divorce, and some-

Marlene Cutitar '83 MD'86 RES'92 was honored by the Rhode Island Medical Women's Association as the Woman **Physician of the Year.**

practice in Providence and is a clinical assistant professor of surgery at Brown. Ekaterini Tsiapali, MD, president of RIMWA, said, "With her work as a surgeon, educator, and RIMWA board

how managed to keep all three kids in pretty good shape. I have two in college at Middlebury and Vassar (we tried for Brown, but it is so competitive now!) and one in 6th grade. I am just finishing



CALLING ALL BEANTOWN ALUMS

The Brown Club of Boston, in partnership with the Brown Medical Alumni Association, has something planned and wants you to know about it!

On **Tuesday, June 7, 2011**, Associate Professor of Family Medicine Julie Taylor and third-year med student Marina MacNamara will present **Growing Pains: How Alpert Medical School Is Evolving in a Changing Health Care Landscape**.

For details, visit
<http://www.brownclubofboston.com/>.



BROWN

ALUMNIALBUM

my fellowship in Child and Adolescent Psychiatry at Tufts after mostly staying home to raise my children. As of July this year, I will be assistant medical director at You Inc., a child services agency in Worcester, MA. I would love to hear from old friends in the Boston or Worcester area." Gwyn's email address is cattellmd@gmail.com.

1991

Daniel Quirk is now an associate professor in the Division of Gastroenterology and Hepatology at Thomas Jefferson University Hospital in Philadelphia. Daniel previously served as director of Endoscopic Ultrasonography and as director of Translational Research in the Division of Gastroenterology at Rhode Island Hospital. He has been acknowledged by his peers as a "Top Doc" in gastroenterology by both *Rhode Island Monthly* and Philadelphia's *Main Line Times*.

1993

Jim Lando '88, **Leigh Winston MD** '93, and family "recently visited **Jay Zaslow** '88 and **Samantha Rai** '91, Tufts MD '97

is doing part-time urgent care. Their daughter, **Samantha**, is getting ready for her driver's test and learning to drive a manual transmission while their son, **Daniel**, is preparing for his Bar Mitzvah in May. **Jim** and **Dan** are off to Israel for Passover and plan to visit friends, scuba dive, and learn to rappel in the Judean desert." They would love to hear from classmates: leigh.winston@gmail.com or jlando@gmail.com.

1998

Wendy W. Lin '94 writes, "We would like to share the wonderful news that **Mason Heinz Lin Bieler** was born on February 11, 2011, in Los Angeles. Older sister **Breanna** is 2 years old and is getting used to the new addition. I am still working as a full-time emergency medicine attending physician in multiple hospitals in Los Angeles, including Cedars Sinai Medical Center."

Georgios Tsoulfas '94 is assistant professor of surgery at the Aristotle University of Thessaloniki in Thessaloniki, Greece, and president of the Greek Chapter of the International

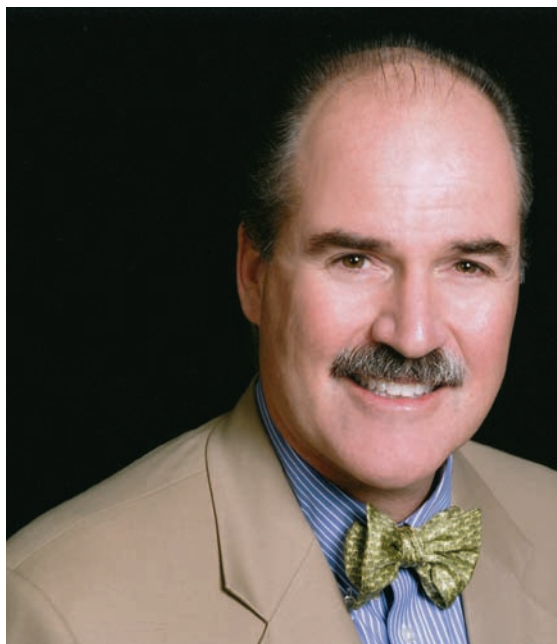
"Jim and Dan are off to Israel and plan to visit friends, scuba dive, and **learn to rappel in the Judean desert."**

at their home in Westchester County, NY, while en route to a Hazon Jewish Food Conference in CT. **Jay** and **Samantha** have two lovely daughters, a very cute puppy, and quite an ambitious gardening endeavor in their backyard. It was great reconnecting! **Jim** is working at the CDC in his hometown of Pittsburgh in the health department. **Leigh**

College of Surgeons. He and wife **Polyxeni Agorastou**'s first child, **Suzi Tsoulfas**, was born on February 17, 2011.

1999

Arshad Ahsanuddin '92 is a staff hematopathologist at Diagnostic Services of Manitoba in Winnipeg, Canada,



Peter Kilmarx MD'90

Going Viral

CDC adviser battles HIV/AIDS and more.

Captain Peter Kilmarx MD'90, senior adviser to the director for health reform of the Division of HIV/AIDS Prevention at the Centers for Disease Control and Prevention (CDC), fights HIV/AIDS on micro and macro levels. Whether treating patients or providing high-level policy guidance, Kilmarx battles the scourge in far-away lands—Botswana and Thailand—with scarce resources and significant patient needs.

Scarce resources indeed. Kilmarx recalls the time when a Pakistani pediatrician saw 120 patients in two hours. On another occasion, Kilmarx “had to see 70 HIV/AIDS patients in one morning in Thailand... [leaving] little time to do more than prescription refills.” Of his work as a practitioner, he says, “I am simply filling a gap.”

The CDC provides high-level support to domestic

and foreign medical providers through financing, training, developing recommendations, and laboratory resources. Kilmarx believes that the US, now struggling to reform health care financing, can learn lessons from other countries, given their long experience managing public health care programs with limited resources.

One such nation is Botswana, where the CDC was able to support programs that have prevented thousands of cases of mother-to-infant HIV transmission by, says Kilmarx, “increasing HIV testing of pregnant women ... from under 20 percent to more than 90 percent in just a few years.” Of all the African nations, Botswana had the highest percentage of adults undergoing HIV testing.

Though pleased by such outcomes, Kilmarx acknowledges frustrating situations, such as the CDC's inability to prevent Ebola outbreaks in Africa. The short-term response to such outbreaks, he explains, was helpful, but without basic infection control procedures and resources—in short supply in some parts of Africa—future outbreaks are likely.

Consider the remarkable full circle of his experiences in Zaire, where he served in the Peace Corps in the early 1980s. In 2007, he says, “My Peace Corps village chief sent me a text message ... that there was an Ebola outbreak in the village.” Kilmarx helped lead the international response and establish a CDC Ebola diagnostic laboratory at the Luebo Hospital. At the trip's end, he visited the village he'd lived in 20 years earlier. A farmer named Shamba Shamba enthusiastically greeted him with a picture of his 22-year-old son, Pierre, whom he'd named for Kilmarx. A second picture, tucked safely into Shamba's Bible, was of Kilmarx's now-deceased mother cradling the newborn Pierre in her arms.

Named the Paul J. Galkin Lecturer for Distinguished Leadership in International AIDS Research in 2005, Kilmarx is especially pleased by Brown's commitment to creating world-class public and international health programs. After all, when he becomes the country director for CDC/Zimbabwe in July, he might recruit alumni who, like him, view medicine as social justice.

—N.K.

ALUMNIALBUM

EYE
ON ALUMNI

Healing Hands

Orthopaedic surgeon keeps athletes in top form.

The waiting room of Steven Shin '95 MMS'97 MD'99 is likely to be crowded with high school athletes, “week-end warriors,” and high-profile professional athletes—including Kobe Bryant—who have suffered hand injuries.

Shin, a native of Poughkeepsie, NY, laughingly says his career in medicine was virtually preordained. “My father is a doctor, my grandfather was a doctor, my uncle is a doctor,” he explains. “From the time I was very little, my mother was telling me that I should be a doctor or a priest.”

Despite his family history, Shin wasn't sure that medicine was for him, even after being admitted to Brown's Program in Liberal Medical Education. Meeting and working with Dr. Arnold-Peter Weiss, however, confirmed that he was on the right track. “The research I did with [Weiss] was fascinating,” recalls Shin. “I liked fixing things. With hand surgery, there's often an immediate result.” Shin, who finds the anatomy of the hand “fascinating and complex,” thought that orthopaedic hand surgery would be an intriguing career.

Given the temperate climate of southern California, many high school students play baseball and “think they're Roger Clemens and don't take a break. Playing [a sport] year round can make them more prone to injury.

and treating orthopaedic and sports injuries, Shin is also an orthopaedic consultant for the Los Angeles Angels and a hand consultant for many other professional teams. He has treated more than a team's worth of professional athletes, including J.R. Roenick, formerly with L.A.'s hockey team, the Los Angeles Kings, and Mark Wagner, a catcher with the Pawtucket Red Sox. As for Bryant, perhaps his most famous client, Shin says, “He's a huge, dynamic presence on the court. In the office, he's very down to earth and pleasant to treat. I treat him like any other patient.”

Shin, who serves as Kerlan-Jobe's chief financial officer and the clinic's sole hand surgeon (though he is recruiting a second surgeon from Boston), has only brief moments of discretionary time. When he is not home



Steven Shin '95 MMS'97 MD'99 and Tiffani Shin with their son, Philip.

Shin is an orthopaedic consultant for the Los Angeles Angels and a hand consultant for other professional teams.

It's extremely gratifying to treat elite athletes and get them back to their previous level of play,” Shin says.

A partner since 2008 at the Kerlan-Jobe Orthopaedic Clinic, a renowned practice with a focus on diagnosing

with his wife and young son, he lectures trainers with Team HEAL Foundation (a nonprofit organization that provides certified athletic trainers to underserved public high school athletic programs), teaches at USC's Keck School of Medicine, and writes for professional journals.

Although first and foremost a surgeon, Shin points out that “surgery is [almost] always the last resort. We exhaust non-surgical treatments, especially for chronic conditions, but every situation is a little bit different.” —N.K.

COURTESY SHIN

where he has worked for two-and-a-half years. He is also an assistant professor in the Department of Pathology at the University of Manitoba. He writes, "I am self-publishing a series of vampire novels that I wrote for fun. The first two books, *Sunset* and *Sunrise*, should be available in print and eBook form from my website <http://www.pactarcanum.com> in April."

2000

Michelle Quiogue '96 is a Physician Champion for Diversity at Kaiser Permanente in Kern County, CA, a member of the Board of Directors of the California Academy of Family Physicians, and editor of *California Family Physician* magazine.

Teena Shetty '95 and her husband, Mihir Desai, PhD '89, have three children: Mia Gitanjali and Ila Gayatri, both 3 years old, and Parvati Safia Desai, born in November 2010.

2001

Michelle Ferdinand Liu '96 is the head of the Otolaryngology Department at the Naval Hospital in Jacksonville, FL. Michelle was a resident at the Naval Medical Center in Portsmouth, VA, from 2003 to 2008. She is married to Moses Liu and has two children, Ezra, 6, and Esther, 1.

2004

Rupali Kotwal Doshi '00 and her husband, Saumil Doshi '99, are currently both fellows in the Division of Infectious Diseases at Emory University. Rupali writes, "We are enjoying the antics and activities of our son Arjun, born April 2010, and talking about bugs over dinner."

Zachary Litvack '98 is clinical fel-

low in surgery at Harvard Medical School and Brigham & Women's Hospital. In April he received the 2011 Mahaley Award from the National Brain Tumor Foundation for best clinical research on brain tumors at the American Association of Neurological Surgeons annual meeting in Denver. He and his wife, Jamie, a physician at Mass Eye and Ear Infirmary, live in Boston with their two-and-a-half-year-old daughter, Zoe.

2005

Tess Fabrick Klaristenfeld and Daniel Klaristenfeld (general surgery residency '06) are "doing great in southern Cali-

fornia. Daniel graduated from a USC fellowship and is now a colorectal surgeon at Kaiser, and Tess graduated from UCLA residency and is currently an emergency physician with Valley Emergency Physicians. They have two girls, Noa Miriam, 5, and Joely Eden, 2."

2006

Keith Corl RES'10 became engaged to Alexandra Medeiros of Fall River, MA, in October 2010. Keith is currently an attending physician in the Department of Emergency Medicine at North Shore University and Forest Hills Hospitals in New York.

Elizabeth Louise Yu '02 is a second-year pediatric gastroenterology fellow at the University of California in San Di-

ego. She conducts research on anti-inflammatory therapies on fatty liver at the Salk Institute in La Jolla, CA.


2007

Tamara Chang '03 raised more than \$3,000 for the Leukemia & Lymphoma Society as a participant in the 2011 Walt Disney World Marathon in January. Her chapter, Massachusetts, alone collected more than \$100,000. Tammie is currently a resident at UMass and is heading toward an oncology fellowship. She reports: "The Disney marathon was without a doubt one of the most fun experiences I've had, EVER. [The marathon was] even more rewarding know-

"The **Disney marathon** was without a doubt **one of the most fun experiences I've had.**"

ing that it was in pursuit of a good cause."

2008

Elizabeth Thompson Naylor '04 writes, "Bradley Naylor '03 and I welcomed our son, Luke Timothy Naylor on February 13, 2011. He joins big sis Abigail Madeleine Naylor, who was born on March 25, 2009." 

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OBITUARIES

FACULTY

JOHN LADD, PHD

John Ladd died at home on February 6, 2011, at the age of 93. A professor of philosophy at Brown for more than 50 years, he published widely on ethics, political and legal philosophy, and medical ethics. He was the founder and first chair of Brown's Program in Biomedical Ethics, the result of informal meetings beginning about 1972 of a group of professors who met to exchange views on medical ethics. The program, which was formalized in 1973, sponsored roundtable discussions and conferences, and initiated the interdisciplinary courses and concentration in biomedical ethics. Ladd was also the first director of the Center for the Study of Race and Ethnicity in America at Brown. He is survived by his wife of 46 years, Rosalind Ekman Ladd AM'56 PHD'62, three daughters, and four grandchildren.

VICTOR FORMISANO, MD

Victor Formisano, clinical professor emeritus of dermatology, died peacefully on February 9, 2011. He was 80 years old.

A native Rhode Islander, Formisano graduated from Providence College before earning his ScM in biology at Brown and his MD from Boston University Medical School in 1958.

Formisano worked with some of the most renowned skin biologists of all time, including William H. Montagna, PhD, former professor and director of the Brown University Primate Center. While working in the laboratories of Albert Kligman, MD, at the University of Pennsylvania during his residency training, Formisano contributed to the establishment of a prominent research center for aging skin.

In the 1960s he returned to Providence to start a private practice in dermatology. At the time of his retirement

from the faculty in 2005, Charles McDonald, chair of the Department of Dermatology, said, "For 25-plus years [Dr. Formisano] was a very active participant in the teaching activities of the Department of Dermatology at Brown. His teaching methods were buttressed by a tremendous wealth of knowledge, which was very much appreciated by our residents and students."

He is survived by his brother, five children, and 12 grandchildren. Donations in his memory can be made to Doctors Without Borders USA, PO Box 5030, Hagerstown, MD 21741.

JUDITH HEELAN, PHD

Judith Heelan, professor of pathology and laboratory medicine, passed away on February 15, 2011, at the age of 69. She was a teacher at the Medical School for 23 years.

Heelan studied at the University of Rhode Island, where she received an ScB in medical technology and an ScM and a PhD in microbiology. She began teaching at Rhode Island College and Salve Regina while pursuing her PhD.

Heelan was co-director of Brown's pathology residency program and site director for Memorial Hospital's pathology residency program. She was vice-chair of Alpert Medical School's Clinical Faculty Advisory Committee, on which she had served since its inception in 1999.

In addition to her work at Brown, Heelan was an adjunct faculty member at both Community College of Rhode Island and the University of Rhode Island.



Judith Heelan, PhD

She received the Teaching Recognition Award for Clinical Faculty in May 2000 and the Teaching Excellence Award for Clinical Faculty in May 2004. She served as director of the Microbiology Lab at Memorial Hospital from 1989 until her death.

Heelan is survived by her husband, John, a daughter and son, and six grandchildren.

Donations in Heelan's memory may be made to the Jamestown Medical Fund, PO Box 236, Jamestown, RI 02835, and the Visiting Nurse Services of Newport and Bristol Counties, 1184 East Main Road, Portsmouth, RI 02871.

JOHN R. BERNARDO JR., MD, FACS

John Bernardo RES'59, 84, died on March 24, 2011. He graduated from the University of Pennsylvania in 1949 and Tufts School of Medicine in 1953. He completed residency training at Rhode Island Hospital in 1959, and was on staff there as a practicing general surgeon for more than 50 years. Bernardo held a teaching and research appointment at Alpert Medical School as a clinical assistant professor of surgery. He is survived by his wife, Dolores, six children, and 12 grandchildren.



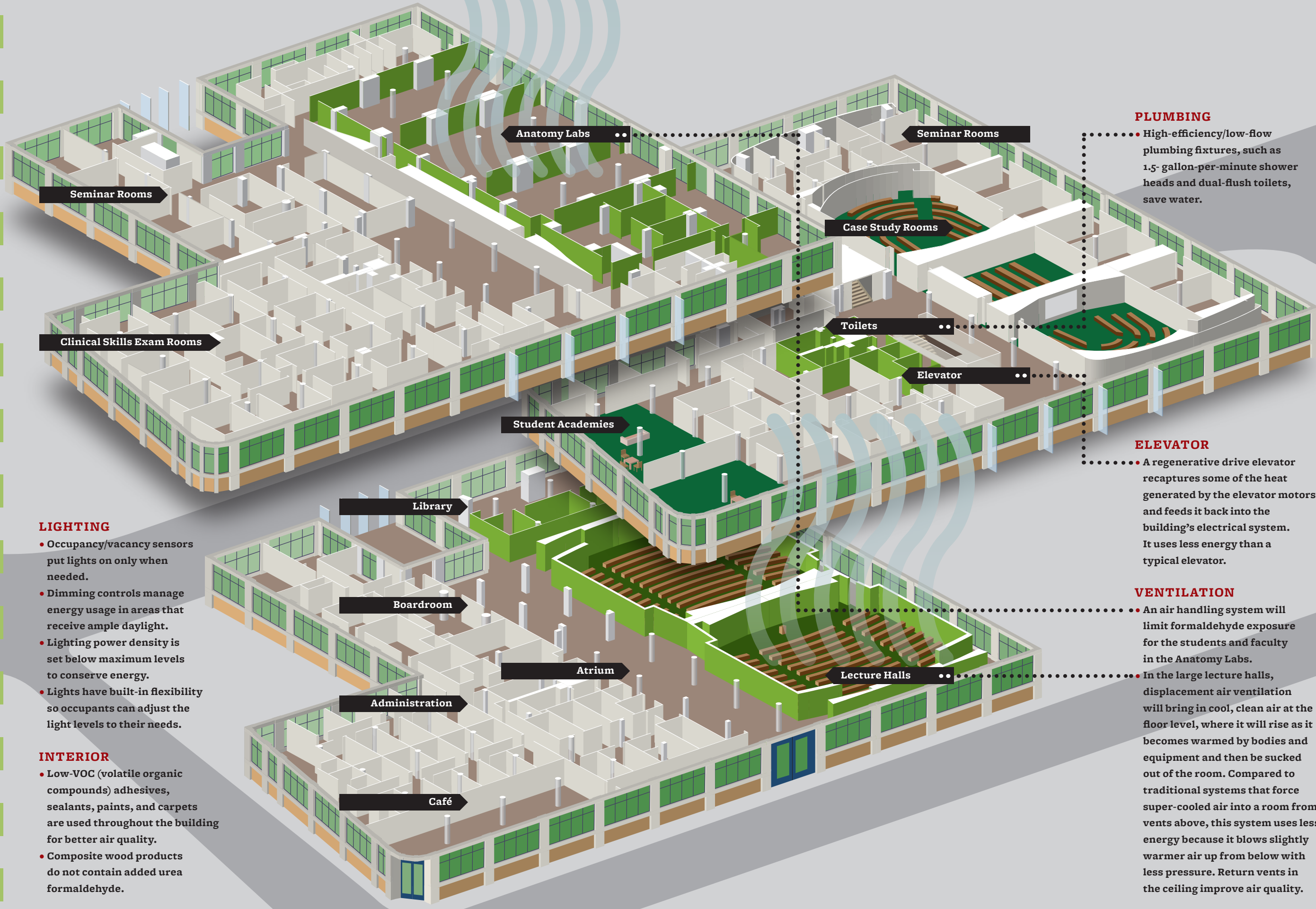
The new Alpert Medical School is a study in sustainable building practices.

Every new construction or major renovation project at Brown is designed to the LEED® (Leadership in Energy and Environmental Design) Silver Standard. The LEED Certification process involves a 100-point rating system that examines water efficiency, energy and atmosphere, materials and resources, and indoor environmental quality. At the outset of the Medical School building project, a green engineer consulted on all of those areas and found ways to incorporate the latest in sustainable building practices and green technology.

The sustainability aspects incorporated into the Medical School building have made it possible to nominate the project for an even higher LEED Certification: Gold. Located in a former factory at 222 Richmond Street in Providence, the building gets points for reusing an existing structure and an urban, previously developed site. An adjacent garage obviated the need to create a parking area and includes spots for fuel-efficient vehicles. The building itself is an educational tool, informing the community about sustainable design measures.

Here's a look at all of the elements that make the new Alpert Medical School building as smart as the people who will inhabit it. And for the latest developments on the project, visit med.brown.edu/newbuilding/.

This rendering shows how the building will look when it opens in August.



LIGHTING

- Occupancy/vacancy sensors put lights on only when needed.
- Dimming controls manage energy usage in areas that receive ample daylight.
- Lighting power density is set below maximum levels to conserve energy.
- Lights have built-in flexibility so occupants can adjust the light levels to their needs.

INTERIOR

- Low-VOC (volatile organic compounds) adhesives, sealants, paints, and carpets are used throughout the building for better air quality.
- Composite wood products do not contain added urea formaldehyde.

PLUMBING

- High-efficiency/low-flow plumbing fixtures, such as 1.5-gallon-per-minute shower heads and dual-flush toilets, save water.

ELEVATOR

- A regenerative drive elevator recaptures some of the heat generated by the elevator motors and feeds it back into the building's electrical system. It uses less energy than a typical elevator.

VENTILATION

- An air handling system will limit formaldehyde exposure for the students and faculty in the Anatomy Labs.
- In the large lecture halls, displacement air ventilation will bring in cool, clean air at the floor level, where it will rise as it becomes warmed by bodies and equipment and then be sucked out of the room. Compared to traditional systems that force super-cooled air into a room from vents above, this system uses less energy because it blows slightly warmer air up from below with less pressure. Return vents in the ceiling improve air quality.

WINDOWS

- High-efficiency, low-E window systems keep radiant heat on the side where it was generated. In winter, heat originating indoors is reflected back inside, while infrared heat from the sun during the summer is reflected away, keeping it cooler inside.

ROOFTOP TERRACE

- The fourth floor consists of office space that opens onto a terrace. The wood deck has built-in benches, planters, and tables. Vegetation combats the urban heat island effect.

ENERGY

- High-efficiency chillers and boilers use less energy.
- Annual energy savings are projected at approximately 29%.

MATERIALS AND RESOURCES

- A minimum of 75% of demolition and construction debris was diverted from area landfills.
- Specified materials and products include provisions for items that have recycled content and are sourced or manufactured regionally.
- Provisions for collecting recyclable materials are located throughout the building.

• BY KRIS CAMBRA

Climate Change

TWO YEARS AGO, when the Brown Corporation voted to go ahead with plans to build the first dedicated home for Alpert Medical School, renovating a building that the University already owned rather than constructing a new one was a prudent economic decision, given that those were the darkest days of the recession. But reuse of an existing structure was also a better environmental decision.

The Nemo Manufacturing Company, founded in 1913 by Benjamin and Charles Brier and Samuel Magid, built this jewelry factory. The factory was converted to office space in 1978.

