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# AUTUMN 2010

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**ON THE COVER** Joanne Weidhaas juggles a dual career as a physician-scientist, plus a family life that includes a husband and three children. Growing up with a twin brother, Weidhaas never thought that men and women might be treated differently.

**THIS PAGE** Weidhaas' work as a clinician informs her research as a scientist. One question that moved from the bedside to the lab is why some people get cancer and others don't. Weidhaas recently discovered a genetic marker associated with increased risk of ovarian cancer and worse outcomes.

*Photographs by Julie Brown*





#### HOW TO REACH US

*Yale Medicine* welcomes news and commentary. Please send letters (350 words or fewer) and news items to *Yale Medicine*, 300 George Street, Suite 773, New Haven, CT 06511, or via e-mail to [ymm@yale.edu](mailto:ymm@yale.edu), and include a telephone number. Submissions may be edited for length, style, and content.

#### VISIT US ON THE WEB

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#### Online: Yale Netcasts

Additional content for articles in this issue of *Yale Medicine* is available online at iTunesU, or by pointing your browser to [yalemedicine.yale.edu](http://yalemedicine.yale.edu).

### Only one take on health care?

Are we to believe from the article ["From Cedar Street to Capitol Hill," *Yale Medicine*, Winter 2010] that there are no Yale School of Medicine alums working on the other side of the aisle to improve the health care system or having a truly different take on health care reform? Or does coming at this from another vantage point not count as being interested in improving our health care system? From my read of that article as well as the piece "Doctors for America," it seems like one of the two. But my hunch is that neither is in fact the case.

Michael Horn  
Yale College Class of 2002

### Student lauds psychiatry elective in Peru

Recently I had the opportunity to pilot a new psychiatry elective at the Mental Health Commission of Ayacucho in Peru. Beyond everything I learned about the practice of psychiatry, it was also one of the most personally meaningful experiences of medical school for me.

In Ayacucho, where James Phillips, M.D., associate clinical professor of psychiatry, and Mark D. Rego, M.D., lecturer in psychiatry, have developed an international psychiatric collaboration, about 25,000 people died in the conflict between Shining Path terrorists and the Peruvian military between 1980 and 2000. Today a different type of violence predominates, with most of our patients reporting histories of physical or sexual abuse.

In the setting of such violence, however, I was struck by the widespread desire to overcome terrible circumstances. Two cases stood out.

In the first, a middle-aged woman with severe cognitive impairment came for follow-up care, accompanied by an elderly Quechua woman. When I asked if they were related, the older woman replied, "No, but she was living on the street and people were mistreating her. I just couldn't leave her there." And so

this elderly woman had brought a stranger into her house and cared for her for the past five years in spite of the latter's substantial behavioral difficulties.

Later, a man in his 30s sought help in controlling his aggression. Every two or three weeks, he admitted with shame, he would drink heavily and beat his wife. Then his 7-year-old son would wet his bed. Suddenly, he was jarred by memories of wetting his own bed at that age after seeing his father come home drunk and beat his mother. He was ready, he said, to "break this cycle of violence."

I admire the courage of our patients and their caretakers to make better lives for themselves and others, and I am grateful to have been a part of this healing process. I highly recommend the rotation to other students and thank my mentor, Alfredo Massa, M.D., FW '09, for his dedication.

Tyler Dodds  
Yale School of Medicine  
Class of 2011

### Account of Cushing surgery rekindles memory

I was interested in your account of Harvey Cushing's second operation on General Leonard Wood in 1927 ["Cushing Collection Once Again Open for Research," *Yale Medicine*, Spring 2010]. As a student interested in the history of medicine, I met Cushing's secretary, Madeline Stanton, who had an office in the Historical Library. She permitted me to go into a back room where Cushing's journals were available.

After 45 years my recollections may be faulty, but Cushing had extensive notes about the second operation. Wood was awake during the procedure. Cushing was not able to completely excise the tumor and expressed a desire to terminate or finish the operation. Wood talked him into trying to finish the operation and do a more complete or curative resection.

During the additional excision of tumor, a bleeder developed and retracted into a region where

it was not reachable. Wood asked Cushing how long the procedure was going to last. Cushing replied that it would be over soon, or words to that effect. From the comments in the journal, I had the impression that Wood died on the table.

Robert I. Finkel, M.D. '65  
Toledo, Ohio

### Liberal arts important for clinicians

The article "Keeping Body and Soul Together" [*Yale Medicine*, Spring 2010] resonated with my wife and me. We have felt very strongly that practitioners of the medical arts should have broad experience with the liberal arts while in college. Even though most will have majored in science while in college because of the prerequisites of nursing school or medical school entrance, they need the experiences that will enable them to understand and communicate with their patients beyond the physical ailment. The experiences in the liberal arts will also allow them to enjoy life outside of their profession. For this reason, over 15 years ago we established the Kenneth L. and Lorraine M. Harkavy Scholarship at my alma mater, the University of Virginia, which recognizes a student who, while planning a career in health care, can describe the value of a liberal arts education in his/her life and future career. We strongly encourage all teachers to emphasize the value of a liberal arts education.

Kenneth L. Harkavy, M.D. '71,  
HS '73, M.B.A.  
Lorraine M. Harkavy  
Potomac, Md.

#### CORRECTION

In the Spring 2010 issue of *Yale Medicine*, the sidebar to the article "Biotech After the Bust" included incorrect degrees and an incorrect title for John Geibel, M.D., D.Sc. He is a professor of surgery and of cellular and molecular physiology and vice chair of the Department of Surgery. We regret the error.

## Keep the letters coming!

As an alumni magazine *Yale Medicine* has a built-in hook to attract readers—our Alumni Notes page. We always like to hear news of classmates, even ones we may not have known well during our school years. And it doesn't matter whether the news concerns a classmate who just won a Lasker Award or another who was named dean of a prestigious medical school. It's enough to know that someone is alive and well, just got married, or just saw her daughter graduate from college—or enter kindergarten.

A member of the Class of 1959 recently pointed out to us that our Alumni Notes section lacked news of anyone who graduated before 1960, and asked that we correct that oversight. About two years ago another alumnus made the same point.

Like these two alumni, we would love to publish more news of alumni from all years and generations. But we're at the mercy of you, our readers. We print the news as we receive it, and that means we rely on alumni to tell us about their lives and careers. Until recently the magazine included a note card for alumni to fill out and send to us; we discontinued the practice after realizing that the card cost \$3,000 a year and elicited about six responses per annum.

We don't actively solicit items beyond inserting a notice in the pages of *Yale Medicine* that all such news is welcome. As regular readers of *The New York Times*, we scan the wedding pages on Sundays to look for news items. And sometimes our alumni make a splash in print or online media, perhaps by being appointed to a top government job or publishing a new book.

But you don't need a promotion, award, accolade, or appointment to a high post to see yourself on our alumni page. A simple update on what you're doing is plenty. (A high-quality, high-resolution photo doesn't hurt, either.)

We look forward to hearing from you.

John Curtis  
Managing Editor

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## SECOND OPINION BY SIDNEY HARRIS



"THERE'S BEEN A LOT OF RESEARCH LATELY ON YOUR CONDITION. NOW I'M SORRY I DIDN'T READ ANY OF IT."

## yale medicine

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### Editor in Chief

Michael Kashgarian, M.D. '58, HS '63  
*Professor Emeritus of Pathology  
and Senior Research Scientist*

### Editor

Michael Fitzsosa  
*Director of Communications*

### Managing Editor

John Curtis

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Peter Farley, Jennifer Kaylin, Karen Peart,  
Cathy Shufro, Marc Wortman, PH.D.

### Contributors

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Dagradi, John Dillon, Catherine Dinsmore,  
Kerry Falvey, Steve Kemper, Jill Max, Kara  
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### Design

Jennifer Stockwell

### Copy Editors

Rebecca Frey, PH.D., Anne Sommer

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*Director of Alumni Affairs*

### Mailing List Inquiries

Claire M. Bessinger  
*Communications Coordinator*

Cheryl R. Violante  
*Website Coordinator*

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### ADDRESS CORRESPONDENCE TO Editor, *Yale Medicine*

300 George Street, Suite 773  
New Haven, CT 06511  
Telephone: 203-785-5824  
Facsimile: 203-785-4327  
Electronic mail: [ymm@yale.edu](mailto:ymm@yale.edu)  
Website: <http://yalemedicine.yale.edu>



## Yale welcomes a new med school

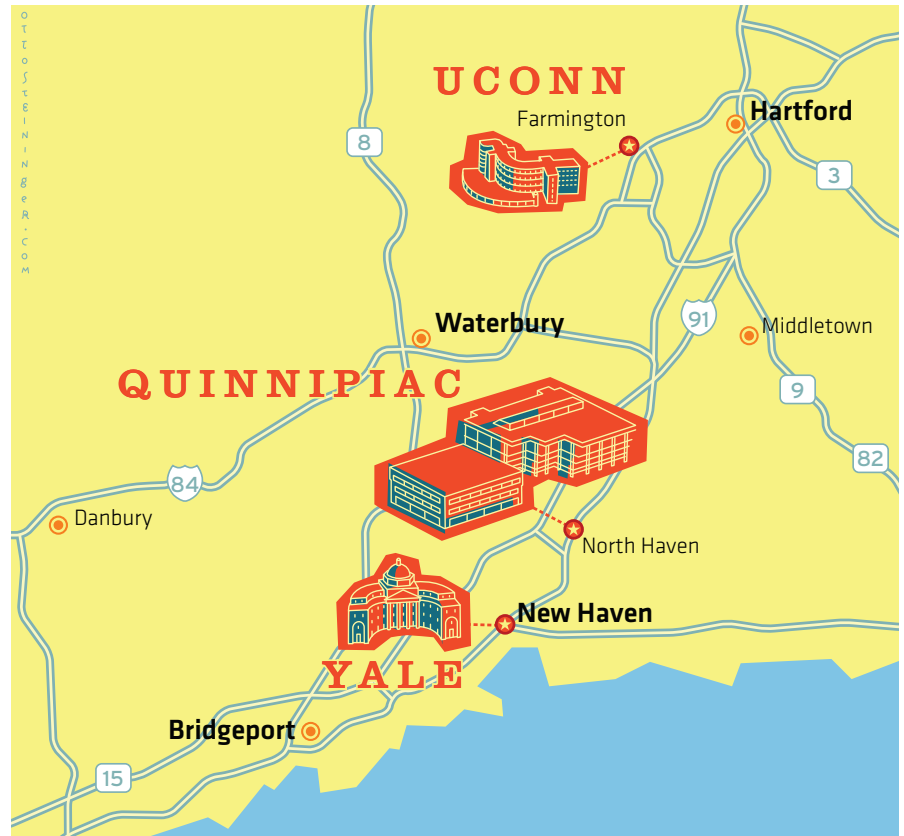
Quinnipiac University's proposed medical school would be the third in Connecticut.

Quinnipiac University in neighboring Hamden will open a new medical school—one that will focus more on teaching than research and on primary care rather than specialty fields, President John L. Lahey, PH.D., announced in January.

The school, to be built on Quinnipiac's North Haven campus at a cost of \$75 million, would become the third medical school in the state following those at Yale and the University of Connecticut. North Haven is already home to Quinnipiac's School of Health Sciences, which awards degrees to physician assistants, nurse practitioners, physical therapists, radiologist assistants, and occupational therapists. "Quinnipiac has a long history of preparing health care professionals," said Lahey, "so a medical school is a logical next step for us." The new institution will also add to a national mini-boom of 12 to 15 new or proposed medical schools.

School of Medicine Dean Robert J. Alpern, M.D., said that the new school would be complementary to rather than competitive with Yale. "I think it's the right way to start a medical school," said Alpern, Ensign Professor of Medicine, who has offered Lahey advice and support. "When he first told me about it I was surprised, but as I've come to understand what they're doing, it makes great sense."

Quinnipiac's medical school will differ from Yale in its focus on



primary care. "Everyone agrees that there is a shortage of primary care doctors now and that there is going to be a massive shortage in the future," said Alpern. Quinnipiac will encourage students to enter primary care both through its admissions process and by funneling financial aid to students who express interest in primary care, Lahey said.

In addition, first- and second-year students will get hands-on experience in emergency rooms or community clinics, and students will go to hospitals in the developing world to help provide basic health care. "Our hope is that experiences here and abroad will inspire them to go into primary care medicine," said Lahey, adding that Quinnipiac's health programs already have affiliations with clinics and other health care institutions in Costa Rica, Gabon, Haiti, and Nicaragua.

Though the new medical school will be an unknown quantity, Lahey isn't worried about attracting students. He expects to welcome the first class of about 50 students in 2013 or 2014.

Admissions will eventually reach 125 entrants per year.

One of Quinnipiac's challenges will be securing partnerships to ensure clinical instruction and rotations for its students. Slots in New Haven's hospitals, especially Yale-New Haven Hospital, are already filled by Yale medical students. But Quinnipiac has had encouraging meetings with hospital administrators in Bridgeport, Danbury, Middletown, and Hartford, said Lahey.

Alpern doesn't expect the new school to have any negative effects on Yale. "I think it's good for the country and good for the state of Connecticut," he said. "We need more doctors. The more universities that want to get into the game, the better."

—Steve Kemper

## Yale researchers create a Lyme disease app for iPhone that assesses risk

Protection from Lyme disease can be as close as your pocket, thanks to an iPhone application developed by Yale researchers that tells people what to do if they're bitten by a tick and how serious their risk is.

The app uses global positioning system (GPS) technology, which tells users the prevalence of infected deer ticks at their location in the continental United States and provides a list of doctors in the area who treat Lyme disease.

"It's one of the first health apps with information that can affect people's health directly and that's geographically coordinated according to risk," said Durland Fish, PH.D., professor of epidemiology, who led the project. It was inspired by a disease outbreak app developed at the height of the 2009 swine flu epidemic by Fish's former student, John Brownstein, PH.D. '04, who is now an instructor in health informatics at Harvard.

The Lyme app was made in conjunction with the American Lyme Disease Foundation and the Centers for Disease Control and Prevention. The Yale team used 100 field researchers over four and a half years to draw up a map of tick prevalence around the country. Though the map is available on the Web, "it's not geo-coordinated for where you are," Fish said. "That's important. There are a lot of areas in the country where there's little risk. If you're in Colorado, you get zero risk."

The app also gives tips on ways to prevent Lyme disease—avoid wooded areas and tuck pant legs into your socks.

Another section, with both life-size images and enlargements, shows users how to identify ticks that cause Lyme disease (and some that don't). It also includes verbal instructions and a video on how to remove a tick.

Since Lyme infection depends on how long an attached tick has been feeding, users who have been bitten can compare the tick to life-size photos of the progression of blood engorgement, ranging from under an hour to 96 hours or more. The photos "are just blobs," Fish admits, but that's exactly how the engorged ticks appear on the body, so they're "right on the money."

The app also lists the symptoms of Lyme disease and includes a dozen photos of the telltale rash that accompanies most cases. Again using GPS, the app provides directions to nearby doctors' offices and a button to call them.

A useful app "leverages what people want and need on the go as opposed to what they would do at their computer," said Lilly Gold, co-founder of IntuApps, which developed it. The app is available from iTunes for \$1.99; proceeds benefit the American Lyme Disease Foundation.

—John Dillon



Using a map that shows tick prevalence around the country, epidemiologist Durland Fish, center, created an iPhone app that allows users to gauge their risk for bites and provides instructions on how to remove a tick. Maria Diuk-Wasser and Francesca Tizard also worked on the application.

## et cetera . . .

### PATIENTS SEEK DISCLOSURE

Most patients and research subjects believe that doctors and scientists should disclose their financial ties with pharmaceutical and medical device companies, according to a report by School of Medicine researchers published in *Archives of Internal Medicine* in April.

"We found that patients and research subjects believe financial ties affect professional behavior," said lead author Cary P. Gross, M.D., associate professor of medicine. In their review of 20 surveys conducted primarily with patients, Gross and his colleagues found that many patients view physician ties to drug companies as unacceptable or inappropriate, and that a quarter of the patients surveyed reported less willingness to participate in research after disclosure of financial ties. Gross and his team hope that their research will inform pending national legislation to require that physicians publicly report their ties to pharmaceutical and medical device companies.

"We hope our study will improve the design of these public reporting systems, perhaps by highlighting the kind of information patients want disclosed and shedding light on how they will think about that information," said first author Adam Licurse, M.D. '10.

—John Curtis

### VA RANKED NUMBER ONE IN COUNTRY

The VA Connecticut Healthcare System in West Haven, Conn., one of 153 Veterans Affairs hospitals in the United States, has been ranked number one in the country for clinical care among the system's tertiary facilities by the Veterans Administration.

The Connecticut VA achieved a perfect score in performance measures in three of nine categories: acute myocardial infarction, tobacco screening, and heart failure. For behavioral health screening, community-acquired pneumonia, and surgical complications it achieved a rating of "exceptional."

"We're not one of the largest or most well-funded facilities, but we tend to be very efficient and provide outstanding care," said Gary V. Desir, M.D. '80, professor of medicine (nephrology) and chief of medical services at the West Haven VA.

—Jill Max

## City supermarket closes, leaving a “food desert” along Whalley Avenue

When Shaw’s opened one of its few urban stores on Whalley Avenue in 1998, it brought fresh, affordable food to the Yale community and the nearby Dwight Street neighborhood. In January Shaw’s corporate parent, SuperValu, announced that it was selling its 18 stores in Connecticut to “operate more efficiently and effectively.” Only two stores, the Whalley store and another in Mansfield, lacked a buyer. “It was like losing a family member,” said Linda Townsend-Maier, executive director of the Greater Dwight Development Corp., owner of the property, which also includes a pediatric dental office, a Rent-A-Center, an auto parts store, and a laundromat.

“Lots of people shopped there, and a lot of those people don’t have transportation,” Townsend-Maier said. She fears a return to the pre-supermarket days, when area residents relied on corner stores and fast food joints. “That is

responsible for a lot of the obesity that you see,” she said.

The store’s closing caused concern not just in the neighborhood but also among Yale researchers who have studied the impacts of urban “food deserts.” A food desert, said Roberta R. Friedman, sc.m., public policy director for Yale’s Rudd Center for Food Policy and Obesity, is a district that lacks “access to the fresh, nutritious, and affordable food that people need to maintain healthy diets and weights. Instead there’s an overabundance of processed foods with little nutrition and plenty of calories, sugar, and fat—not a recipe for good health.”

Marlene B. Schwartz, PH.D. ’96, the Rudd Center’s deputy director, said the closing threatens to reverse a food climate in New Haven that had improved after Shaw’s opened in 1998. According to Rudd Center research published in *Health Affairs* in 2008, access to healthy foods in low-income neighborhoods in New Haven was substantially better and more affordable in the early 2000s than in 1971. “The fact that Shaw’s was there improved the quality of food,” she said.

But there were also complaints about Shaw’s, one of which was that it didn’t balance high-end foods with such low-cost “basic stuff” as diapers and baby formula, said Abigail Rider, Yale’s director of university properties. The store’s clientele included residents of a low-income neighborhood, Yale graduate and international students,

and members of an Orthodox Jewish community, yet it was stocked for suburban shoppers. “This is something that I don’t think Shaw’s understood,” she said. “Shaw’s was stocking it for only one of their demographics.”

DataHaven, a nonprofit organization that compiles information about the New Haven area, surveyed 2,335 Shaw’s customers and found that more than half walked to the store. Quentin Howard Jr., who lives nearby and shopped with his three children, was one of them. “I’m going to have to ask somebody in my family and friends for a ride,” he said, adding that bananas are the only fruit available at his neighborhood store. Bernadette Belton said she has to buy three gallons of milk each time she shops for her children, and “at the corner store you can only get whole milk.”

A 2009 survey of six New Haven neighborhoods by the Community Alliance for Research and Engagement (CARE), a component of the Yale Center for Clinical Investigation, found that of 88 stores, two-thirds were convenience stores selling mostly so-called junk food, and one in five was a liquor store. “The closing of Shaw’s adds to this void,” CARE said in a statement.

Officials hope that the void won’t last long. Rider said that her office is working with SuperValu, the city, and the development corporation to find a replacement.

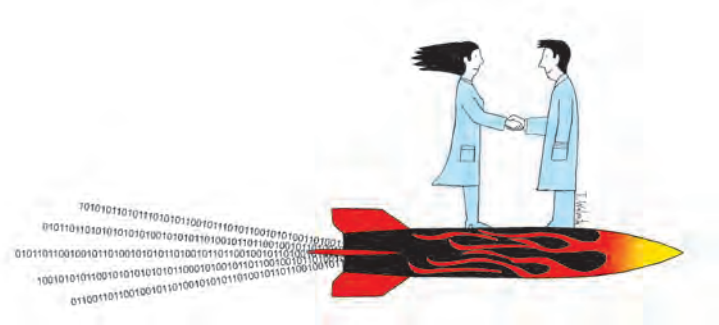
“Yale has both an interest in helping the community and a vested interest—that there is food for graduate students,” said Robin S. Golden, J.D. ’98, a Yale Law School lecturer who supervises law students in the Community and Economic Development Clinic working on behalf of community groups, including the Greater Dwight Development Corp.

—John Dillon



When the Shaw’s supermarket on Whalley Avenue in New Haven closed its doors this spring, it created a “food desert” for area residents. Yale and New Haven officials are working together to bring another store to the neighborhood.





## A new online network lets scientists connect over shared research interests

Scientific collaboration is a lot like finding a mate: people look for a partner within their spheres of contact, and occasionally a relationship blossoms from a spontaneous conversation between two strangers. But just as dating has gone high-tech with online services, Yale scientists now have their own online resource for connecting colleagues with common interests—the Research Accelerator website ([ycci.researchaccelerator.org](http://ycci.researchaccelerator.org)).

The Research Accelerator goes beyond connecting researchers according to which medical or graduate school they attended. Instead it promotes collaboration based on common research interests.

The new platform is the brain-child of two longtime pals: Geoffrey L. Chupp, M.D., associate professor of medicine in the division of pulmonary and critical care medicine; and Steven J. Greenberg, J.D., a New York attorney who founded the job search website Jobs4.o. Over the men's 25-year friendship—they met through their wives, who were classmates at Tufts—the two have often discussed science, including the challenges of research. Technological advances now allow scientists to slice and dice information to generate new data, Chupp said; however, channels for drawing on the insights of other researchers to better understand the data are not readily available.

A few years ago, Chupp suggested to Greenberg that they create a modified version of the Jobs4.o website for scientists. Nearly three years later, the

Research Accelerator is the product of Chupp and Greenberg's time and commitment.

Researchers with a valid Yale e-mail account can log onto the Yale Research Accelerator site free of charge. Once registered, they can post information about genes, pathways, or diseases to seek out others with similar interests. Researchers can search or browse listings or create alerts describing what they're looking for. Filters allow scientists to control how and with whom they share their information and resources.

The Research Accelerator site was launched at Yale in mid-March under the auspices of the Yale Center for Clinical Investigation (YCCI). Within five weeks, well over 300 scientists at Yale were posting data. "My hope is that the Research Accelerator site will catch on and not only be useful to people here but will also begin communications across institutions. Science shouldn't have a boundary," said Robert S. Sherwin, M.D., FW '74, director of YCCI, C.N.H. Long Professor of Medicine, and section chief of endocrinology.

Indeed, talks are under way with other institutions keen to join the Research Accelerator platform. A completely public version of the site ([researchaccelerator.org](http://researchaccelerator.org)) also exists for all researchers regardless of institutional affiliation.

"Our goal is to one day wake up—soon, we hope—and have someone who's studying botany at University College London or the Cleveland Clinic send some useful data to a cancer researcher at Yale and have that collaboration radically advance the pace of research," said Greenberg.

—Kara A. Nyberg

## et cetera ...

### LINCOLN'S GAIT, ERRANT GENE

Abraham Lincoln's gawky gait may have been the result of a neurodegenerative disorder that causes a loss of coordination in the hands and arms and that he likely inherited from his paternal grandparents. Now, a Yale-led study published in March in *Proceedings of the National Academy of Sciences* has revealed the process by which a genetic mutation causes the disorder, spinocerebellar ataxia type 5 (SCA5).

Investigators at Yale, Harvard, and the Jackson Laboratories removed the protein beta-3 spectrin, previously identified as the cause of SCA5, from mouse brains. Without the protein, they found, neurotransmitter receptors and transporters fail to assemble properly in brain regions involving coordination, memory, and cognitive functions.

"Given the widespread distribution of various spectrins in all cells and tissues, we now suspect that several other neurologic diseases, as well as diseases involving other organs, may arise from defects in beta-3 spectrin," said senior author Jon S. Morrow, Ph.D., M.D. '76, HS '79, FW '81, Raymond Yesner Professor of Pathology and professor of molecular, cellular, and developmental biology.

—John Curtis

### ALTERNATIVE TO BYPASS SURGERY

Yale researchers reported in the April issue of *The Journal of Clinical Investigation* that they have found a "biological bypass," a new way of treating coronary artery disease caused by plaque buildup.

"Successfully growing new arteries could provide a biological option for patients facing bypass surgery," said lead author Michael Simons, M.D. '84, chief of cardiovascular medicine and the Robert W. Berliner Professor of Medicine.

Researchers have used growth factors to generate new arteries, not always successfully. Simons and his team stimulated arterial formation in mice and zebrafish by switching on and off two signaling pathways. "One-half of the signaling pathway inhibits the other. When we disable the inhibitor mechanism, we are able to grow arteries," said Simons. "This opens the possibility of developing a new class of medication to grow new arteries. The next step is to test this finding in a clinical trial."

—J.C.

## A history of birthing

A physician and journalist traces the history of childbirth from Eden to the 20th century.

Among the many intriguing stories that Randi Hutter Epstein, M.D. '90, recounts in her history of childbirth, the story of twilight sleep is among the most ironic. In the early 20th century, women seeking painless birth without the risks of chloroform anesthesia pushed for access to a German obstetrical innovation called “twilight sleep.” By

mixing morphine and amnesia-producing scopolamine, doctors had reportedly lifted “the curse of Eve.” Women who chose twilight sleep still felt pain during childbirth; they just didn't remember it afterward. And an innovation that these early feminists saw as liberating nevertheless entailed tying the woman hand and foot to a bed while she screamed and struggled through labor.

In her sweeping survey, Epstein begins in Eden and ends in a Yale clinic where a woman is having eggs extracted for freezing. Epstein also tells the story of how the inventor of the obstetrical forceps

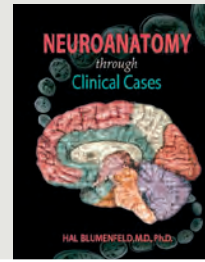
managed to keep the instrument's design secret until the early 1700s. She describes how the 19th-century surgeon and “father of American gynecology,” J. Marion Sims, M.D., developed life-saving surgery for vesicovaginal fistulae—then-common complications of traumatic childbirth—by testing his technique on slave women in Alabama between 1845 and 1849. Epstein also visits a sperm bank that accepts only nine in every 1,000 men who apply to sell their sperm. Epstein's book provides a colorful history for readers curious about the social, religious, and economic factors that influence the management of childbirth.

—Cathy Shufro



### Get Me Out: A History of Childbirth From the Garden of Eden to the Sperm Bank

Randi Hutter Epstein, M.D. '90

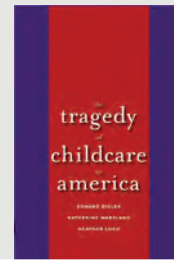


### Neuroanatomy Through Clinical Cases, 2nd ed.

by Hal Blumenfeld, M.D., Ph.D., associate professor of neurology, neurobiology, and neurosurgery (Sinauer Associates) This book uses more than 100 clinical cases to aid in teaching neuroanatomy through an interactive approach. Each chapter presents background material, including an overview of major neuroanatomical structures and pathways, and briefly discusses related disorders. Each chapter then presents clinical cases, including patient narratives and a description of deficits found on examination. Case presentations are followed by questions that challenge the reader to deduce the neuroanatomical location of the patient's lesion and the diagnosis. The book also includes CT and MRI scans depicting the lesions.

### The Tragedy of Childcare in America

by Edward F. Zigler, Ph.D., Sterling Professor Emeritus of Psychology; Katherine Marsland, Ph.D.; and Heather Lord, Ph.D. (Yale University Press) This book addresses the United States' failure to establish a comprehensive high-quality child care program. The authors chronicle the history of child care policy since 1969, including the inside story of America's one concerted—and failed—attempt to create a comprehensive system of child care. The authors conclude with an agenda designed to create a system of child care that would support cognitive, social, and emotional development; school readiness; and academic achievement.



### Anesthesia Emergencies

edited by Keith J. Ruskin, M.D., professor of anesthesiology and neurosurgery; and Stanley H. Rosenbaum, M.D., professor of anesthesiology, medicine, and surgery (Oxford University Press) This book contains lists of anesthetic emergencies, organized alphabetically and by organ system. Each section contains the name of the problem and a short definition; two or three sentences describing the pathophysiology; and checklists for immediate management, diagnosis, and subsequent management.

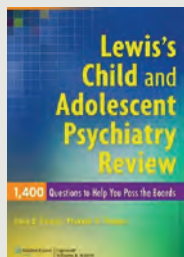
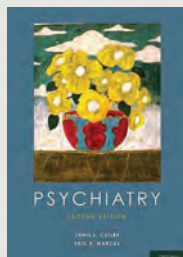
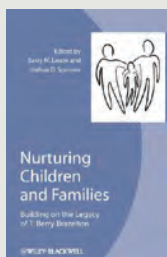
### Nurturing Children and Families: Building on the Legacy of T. Berry Brazelton

edited by Barry M. Lester, Ph.D. and Joshua D. Sparrow, M.D. '85 (Wiley-Blackwell) This book provides an overview of the field of child development from the 1960s to the present and considers pediatrician T. Berry Brazelton's lasting influence on research, practice, and public policy. The book comprises contributions from experts influenced by Brazelton's work in a range of fields, including pediatrics, psychology, nursing, early childhood education, occupational therapy, and public policy.

### Applied Linear Models with SAS

by Daniel Zelterman, Ph.D. '83, professor of public health (Cambridge University Press) This textbook in basic statistics for undergraduates or first-year graduate students using an integrated software system known as SAS introduces linear regression models and describes other linear models, including Poisson regression, logistic regression, proportional hazards regression,





and nonparametric regression. To illustrate these concepts, Zelterman draws on numerous examples from news and current events, with an emphasis on health issues. All data sets and SAS programs used in the book are available from the book's website.

### Psychiatry

by Janis L. Cutler, M.D. '83; and Eric R. Marcus, M.D. (Oxford University Press) This introductory textbook is designed for medical students and other trainees in the health professions, including social workers, occupational therapists, and psychiatric residents. The book is a useful review text for examinations that presents the diagnostic and clinical features of the major psychiatric disorders, along with case vignettes, tables of DSM-IV criteria, practical interviewing tips, and clinical approaches to such basic skills as recognition and assessment of psychiatric illness.

### Lewis's Child and Adolescent Psychiatry Review: 1,400 Questions to Help You Pass the Boards

by Yann B. Poncin, M.D., associate research scientist in the Child Study Center; and Prakash K. Thomas, M.D., lecturer in the Child Study Center (Lippincott, Williams & Wilkins) This text gives a representative sample of multiple-choice questions with answers and explanations to help

readers prepare for the subspecialty examinations offered in child and adolescent psychiatry. The book is based on the best-selling text on the subject, *Lewis's Child and Adolescent Psychiatry*, 4th ed. Two chapters address test-taking strategies and tips.

### Creating Modern Neuroscience: The Revolutionary 1950s

by Gordon M. Shepherd, M.D., D.PHIL., professor of neurobiology (Oxford University Press) This book provides a new multidisciplinary understanding of the revolution of the 1950s that created the modern field of neuroscience. Shepherd focuses on the creative process itself—on understanding how a combination of unique personalities, innovative hypotheses, and new methods led to a remarkable number of advances. His history describes dozens of discoveries, including DNA; growth factors; excitability; synapses; the role of dopamine in Parkinson disease; visual processing; the cortical column; the reticular activating system and REM sleep, stress, learning, and memory. The text also covers the development of clinical neuroscience from Cushing and Penfield to psychosurgery and brain energy metabolism to the present-day use of psychoactive drugs.

*The descriptions above are based on information from the publishers.*

SEND NOTICES OF NEW BOOKS TO Cheryl Violante, Yale Medicine, 300 George Street, Suite 773, New Haven, CT 06511, or via e-mail to [cheryl.violante@yale.edu](mailto:cheryl.violante@yale.edu)



ROBERT KRULWICH

### Science and starlets vie for attention

Science news, said Emmy Award-winning science reporter Robert Krulwich, must compete for the public's, and editors', attention with wars, earthquakes, close elections, celebrities near death, sex scandals, murders, or "a rumor that Jennifer Aniston is pregnant—always good.

"The problem with a science story is that it is just suspect. People think the public is not going to get it or it's too hard unless it's a chocolate-will-make-you-live-longer story," Krulwich said in April at a talk sponsored by the Poynter Fellowship in Journalism.

By contrast, he said, a movie star's love life is common knowledge. "There is a whole lot of shared information. But suppose I want to tell the story of a gene or a protein?" he said. "You say protein and people think it has something to do with a breakfast cereal."

Science writers need to fill in a knowledge gap to make such stories accessible, said Krulwich, who has covered business and politics as well as abstract scientific concepts for radio and television. "We try very hard to create situations that explain something."

—John Curtis



ERIC HOLMBOE

### Better clinical skills needed for better diagnosis

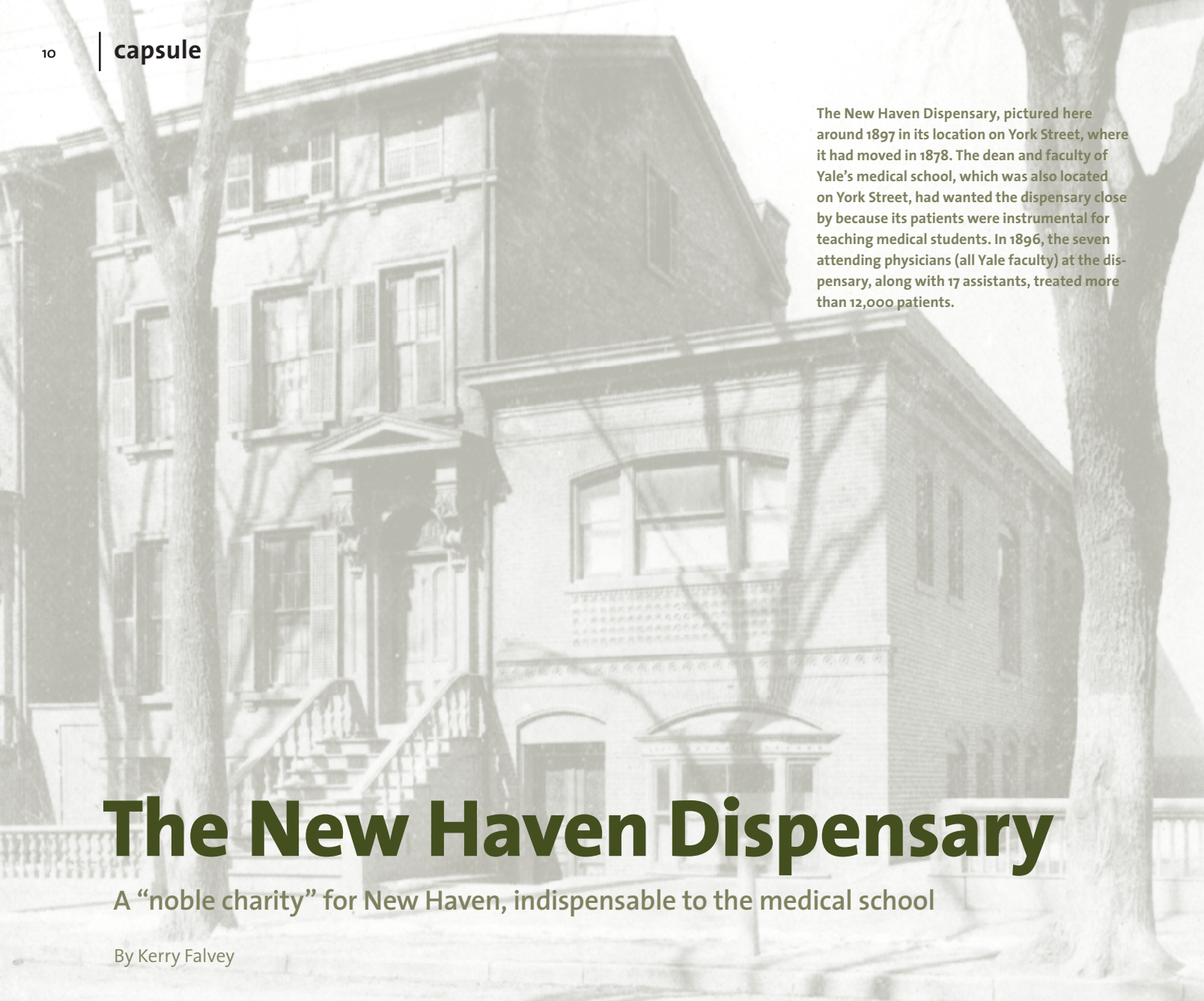
Basic clinical skills provide crucial information: one study showed that the patient interview provided conclusive diagnostic information for 73 percent of patients, while information from imaging proved conclusive for only 35 percent.

But training programs are haphazard in monitoring residents as they learn the basic skills of history taking, physical examination, and decision making, argued Eric S. Holmboe, M.D., HS '93, chief medical officer of the American Board of Internal Medicine. Without supervision, practice does not necessarily make perfect. "If you do something 100 times and you do it wrong, it's still wrong," said Holmboe, speaking at May's Program for Humanities in Medicine. The program honored G. Morris Dillard, PH.D., M.D., founder of the Wednesday Evening Clinic, a service that has provided primary care to the New Haven community for over 30 years while allowing medical students opportunities to practice long-term medicine with the clinic's patients.

The remedies, says Holmboe, are closer supervision and systematic evaluation.

In fields other than medicine, such virtuosos and champions as Yo-Yo Ma and Tiger Woods routinely seek immediate feedback while training, Holmboe said, citing the work of Anders Ericsson, an expert on how individuals develop expertise. In medicine, "It's something we don't do for each other. It's not part of our culture." It's time for that to change, said Holmboe.

—Cathy Shufro



The New Haven Dispensary, pictured here around 1897 in its location on York Street, where it had moved in 1878. The dean and faculty of Yale's medical school, which was also located on York Street, had wanted the dispensary close by because its patients were instrumental for teaching medical students. In 1896, the seven attending physicians (all Yale faculty) at the dispensary, along with 17 assistants, treated more than 12,000 patients.

# The New Haven Dispensary

A “noble charity” for New Haven, indispensable to the medical school

By Kerry Falvey

In the America of the mid-1800s, dispensaries—originally established in Philadelphia, New York, and Boston—existed to treat the poor. The dispensaries filled an increasing need, especially in cities where the population was growing due to an influx of immigrants—they offered free medical treatment and medicines to anyone unable to afford other means of treatment, including those who couldn't afford hospital treatment or were unable to show that they were deserving of hospital charity.

In New Haven, Stephen Henry Bronson, M.D., was the key mover behind the New Haven Dispensary, which opened on December 1, 1871,

at 31 Crown Street in New Haven. Its purpose, as recorded in the General Assembly Bill that incorporated it in May 1872, was “supplying medicines and medical advice and assistance to such as may be sick and needy, in New Haven and its vicinity.”

The dispensary was open from 9:00 until 10:30 each morning (except Sundays and holidays) with three attending physicians, including Bronson, who provided their services gratis. Bronson often prescribed for as many as 30 to 35 patients a day, and when patients were unable to come to the dispensary, he visited them at their homes, also without charge.

The dispensary kept careful records of patient ages, birthplaces, occupations, diseases, and treatments; Bronson usually prepared these reports, which show the dispensary's huge impact in New Haven. In its first 11 months, the dispensary treated 892 patients and provided 1,700 consultations; the numbers rose steadily each year thereafter. The dispensary also served a public health function: it provided free vaccinations to the residents of New Haven, paid for by the city.

The records also showed that most of the dispensary's patients were from the working class. In 1874, the dispensary's 1,592 patients included



*Medical Report Continued*

Number of persons treated	892.
1 <sup>st</sup> year	1072.
2 <sup>d</sup> "	1592.
3 <sup>d</sup> present year	2556.
<i>Total</i>	

Average Number of Consultations for each person treated.	2.57
In 1873	2.35
In 1874 (present year)	2.72

*Mortality Statistics*

Year	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890
Deaths	110	202	211	331	292	373	314	277	283	252	272	272	272	272	272	272	272	272	272

*Sex and Age of Patients*

	1874	1873	1872
Male Adults	367	279	201
Male Infants	216	267	256
Female Adults	608	533	367
Female Infants	317	263	165
<i>Total</i>	1592	1372	992

*Nativity of Patients*

	1874	1873	1872
United States	701	1071	401
Ireland	60	42	35
England	653	1170	292
France	3	3	3
Italy	1	1	1
Poland	1	1	1
Holland	1	1	1
West India	1	1	1
North America	31	15	6
British Am.	3	1	1
Switzerland	17	26	26
Germany	1	2	1
Denmark	1	1	1
Belgium	1	1	1
Sweden	1	1	1
Russia	3	3	3
Austria	1	1	1
Scotland	27	16	16



William Carmalt, professor of surgery at Yale (above and shown seated in the center of the photo, below), held surgical clinics weekly at the New Haven Dispensary.

The medical report of the New Haven Dispensary for 1874, which was likely prepared by its founder, physician Stephen Henry Bronson. The report shows the steady increase in the number of patients treated at the dispensary (left)—from 892 in its first year of operation to 1,592 in 1874—and the increasing number of average consultations per working day: 12.42 consults in 1874. The record of nativity of patients (right) shows that, of the number treated, more than half were born in the United States (701), but an almost equal number were immigrants from Ireland (653). The pattern of increasing numbers of immigrants from Ireland settling in New Haven can be seen in the dispensary's statistics from 1872 to 1874, which show that Irish-born patients were over-represented among groups born outside the United States.



housekeepers (367), people in school-related occupations (206), laborers (161), servants (103), laundresses (40), machinists (33), and shop girls (25). That year the dispensary also treated one author, six blacksmiths, and two engineers, in addition to three “rag pickers” and six “tramps.” Diseases treated ranged from anemia (81 cases) to ailments of the nervous system (67 cases), malaria (49 cases), rheumatism (62 cases), and cancer (five cases).

At the end of the 19th century in New Haven, the dispensary also played a critical role in providing medical students with access to patients. The Medical Institution’s curriculum of

1874–1875 makes this apparent: both the middle and senior classes spent at least five hours a week at the dispensary, compared with one hour a week at New Haven Hospital; moreover, the specialty clinics that both classes attended (these were devoted to the eye, medicine, and surgery) were held at the dispensary as well.

As William Carmalt, M.D., professor of surgery at Yale from 1881 to 1907, recalled, in the late 19th century “the directors of the hospital and a portion of its medical staff were indifferent, even, at times, antagonistic, to the function of the hospital as a factor in medical education. ... During this unsatisfactory period

the main supply of clinical material for the students in medicine was the New Haven Dispensary.” Beyond its services to the community, the dispensary would continue to meet an important need for the medical school, as an affiliation agreement with New Haven Hospital was still decades away.

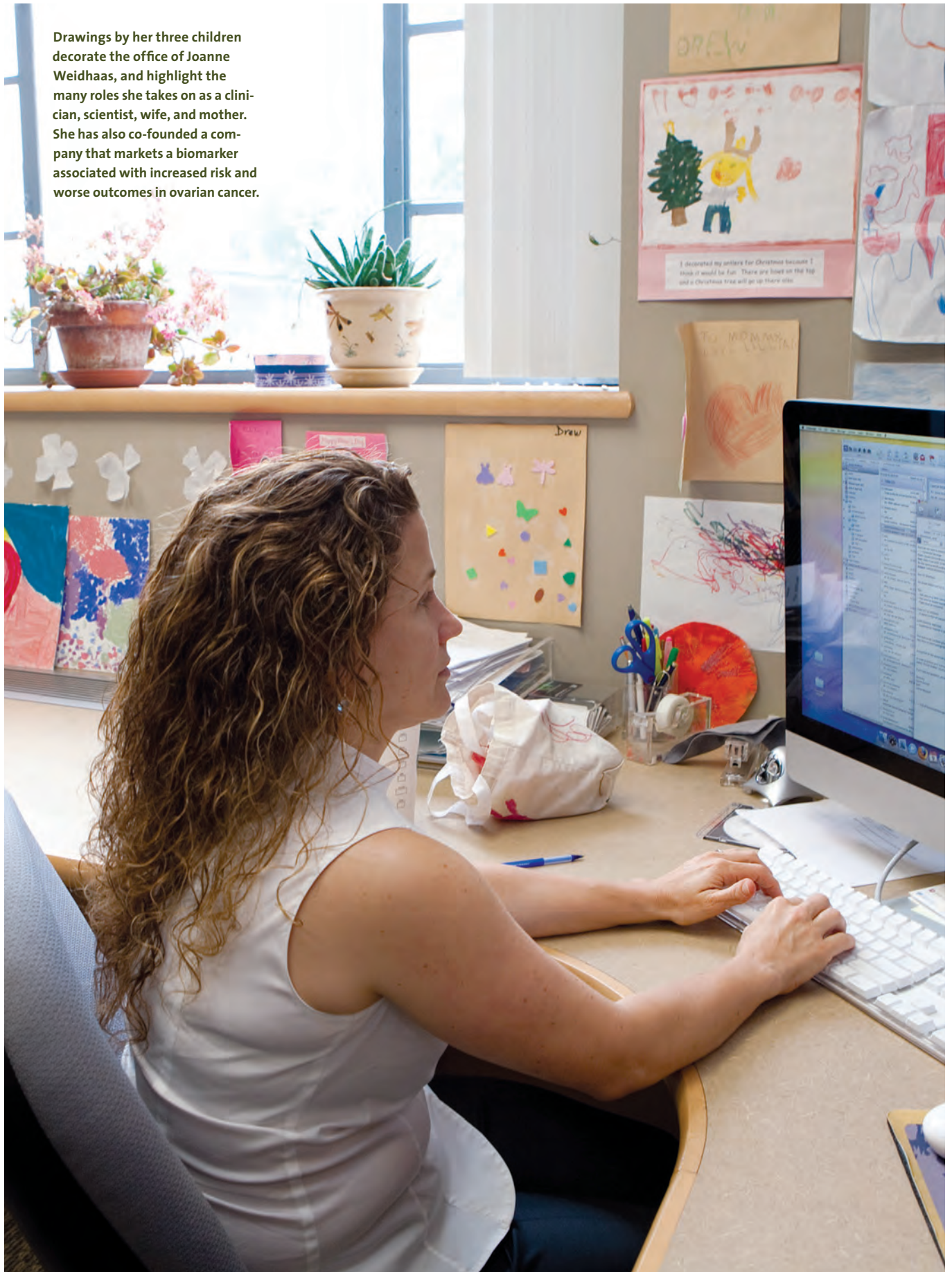
This article has been adapted from *Medicine at Yale: The First 200 Years*, a forthcoming book by Kerry Falvey celebrating the bicentennial of the Yale School of Medicine. The book can be pre-ordered at a discount at [yalebooks.com/ysm200](http://yalebooks.com/ysm200).

YALE UNIVERSITY MANUSCRIPTS AND ARCHIVES

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Drawings by her three children decorate the office of Joanne Weidhaas, and highlight the many roles she takes on as a clinician, scientist, wife, and mother. She has also co-founded a company that markets a biomarker associated with increased risk and worse outcomes in ovarian cancer.





# Improving the lot of women in medicine

In many areas women at the School of Medicine fare better than counterparts around the country, but hidden biases remain.

By Jill Max

Photographs by Julie Brown

Gail D’Onofrio, M.D., M.S., wanted to be a physician for as long as she can remember, but after graduating from Duke with a degree in nursing, she was sidetracked. “I started in nursing because there weren’t people anywhere along the road who said medical school is an option,” she said.

D’Onofrio spent eight years working in general and thoracic surgery, earning a master’s degree in nursing along the way. Then, in her early 30s, she returned to her original goal and entered medical school at Boston University (BU). When it came time to apply for a residency in 1987, she was advised to conceal her age and to deny any interest in having children. After securing a position at BU, she disregarded this advice and gave birth to triplets. She joined the faculty there and juggled her responsibilities by working nights, taking one fewer clinical shift per week (along with a large pay cut), and completing her academic work while her children slept.

In 1996 D’Onofrio arrived at Yale and helped to build the emergency medicine section, becoming chief in 2005 after a nationwide search. When the section became a full department in 2009, she was chosen to lead it. “You’re not going to become a department chair by having a lot of outside interests,” she said. “My hobbies were and are my children.” She found time to be a classroom mother and a soccer coach while advancing in her career. Besides heading a department, she is chief of adult emergency services for Yale-New Haven Hospital and is recognized as a national leader in emergency medicine.

As did other women in medicine, D’Onofrio ignored the discouraging words and pursued her goal of becoming a physician. But the medical establishment has not always welcomed

women into the fold. Women now make up about half the student body in medical schools around the country; their representation on med school faculties has increased as well. But at Yale and other institutions, some of the forces arrayed against D’Onofrio and others of her generation—lack of mentors and role models as well as the need to juggle family and career—still present a challenge to women, despite great strides in addressing issues of gender equality since the 1970s.

## “A waste of effort and funds”

The presence of women in medicine is not a new phenomenon. Ancient Egyptian medical schools accepted women as both students and teachers, and until the 19th century most health care providers were midwives. This tradition persisted despite both the medieval practice of accusing midwives of witchcraft and a petition to England’s King Henry V in 1421 to banish them from practicing medicine. But when the University of Pennsylvania’s medical school and Columbia University’s College of Physicians and Surgeons opened their doors to colonial American students in 1765 and 1767, respectively, all their first entrants were men.

It was not until 1849 that Elizabeth Blackwell became the first woman to receive a medical degree in the United States, from what was then the Geneva Medical College in Geneva, New York. When Louise Farnam and two other women set their sights on the Yale School of Medicine in 1916, one impediment to their acceptance was a lack of bathroom facilities. Farnam’s father, a Yale alumnus and professor of economics, paid for the construction of a women’s lavatory. (Susan

J. Baserga, M.D. '88, PH.D. '88, recounted the history of women at the medical school in "The Early Years of Coeducation at the Yale University School of Medicine," published in *The Yale Journal of Biology and Medicine* in 1980.)

The next year the School of Medicine accepted only one woman, Ella Clay Wakeman Calhoun, M.D. '21. "My partner was courteous and distant with me; it was probably a trial for him to have a woman for a partner," she wrote, reflecting on her first-year anatomy class. Her second-year pathology professor "was known to consider women medical students (certain, one day, to become housewives) a waste of effort and funds!" Calhoun went on to serve for 23 years as health officer for the Connecticut town of Bethany.

More than 40 years later, when Carolyn W. Slayman, PH.D., arrived at Yale in 1967 as a young assistant professor of physiology and microbiology, there were still few female students or role models. Dorothy M. Horstmann, M.D., FW '43, had been the first woman promoted to full professor in 1961. Slayman, Sterling Professor of Genetics and deputy dean for academic and scientific affairs, remembers the late Phyllis T. Bodel, M.D., questioning why there were only about seven women in every class of 100. The admission committee's response? "Because that's the right number."

Bodel chaired the Committee on the Status of Professional Women at Yale Medical School, which in 1974 recommended increasing the number of female faculty members and identifying areas of the curriculum in which gender discrimination was affecting learning. The Office for Women in Medicine—the first such office in an American medical school—was established in 1975 in response to these recommendations, with Bodel serving as its first director. The timing was right. It occurred at the height of the women's movement and three years after the passage in 1972 of Title IX, which required educational institutions that receive federal funding to offer equal opportunities to all students regardless of sex.

Women continued to make headway at Yale—more women were entering medical school and more women on the faculty were winning promotions—but progress was slow. In 1978 women occupied only 4 percent of professorships, and there were no female department heads until 1984, when Slayman was appointed chair of the Department of Human Genetics.

Fifteen years later a report from the Massachusetts Institute of Technology drew attention across the country. The 1999 report found inequities among tenured women at MIT in salary, access to space, resources, and inclusion in positions of power and administrative responsibility. Although Yale had been addressing these issues for more than 20 years, the report rekindled the debate. After the medical school's Commission on Women Faculty found in 2003 that women earned on average about 4.9 percent less than men, then-Dean David A. Kessler, M.D., set about bringing salaries of women into line with those of men. Since that time, there has been a commitment to reexamine this issue on a yearly basis.

"It's not just an issue of today and this year, but if you amortize the amount of money you're losing over a 20- or 30-year career, it's an extraordinary amount," said Carolyn M. Mazure, PH.D., professor of psychiatry and psychology and associate dean for faculty affairs. Mazure is also a member of the Status of Women in Medicine (SWIM) committee, which was formed in 1974 as the Committee on the Status of Women and reinvigorated after the commission's 2003 report. "In many ways Yale is a leader, and we don't see any reason why we shouldn't be a leader in this regard, too."

Compared to other medical schools, Yale fares as well or better in terms of the numbers of women on its faculty: According to the Association of American Medical Colleges, female professors comprise 18 percent of medical school faculty at Yale and in the United States. The percentage of female associate professors at Yale is 36, above the national average of 30. Yale also tops the national average for female assistant professors—46 percent as opposed to 41 percent nationally. At Yale, three department chairs out of 28 during the past academic year were female, slightly lower than the national average; however, the recent departure of Margaret K. Hostetter, M.D., from pediatrics has reduced the number of female chairs by a third.

"There have been huge changes in the number of women over the last 40 years, and that has changed the whole community here," said Slayman. "But we need to figure out why it's taking so long for more women to become full professors."

"It is unacceptable that while 50 percent of our students are female, when they look at the professors, they don't see many women," said Robert J. Alpern, M.D., dean and Ensign Professor of Medicine.

There's no easy answer to why it's harder for women to advance in medicine. The notion that women haven't been around long enough in large enough numbers—the "pipeline" argument—doesn't explain the data. Even in pediatrics or psychiatry, where women have accounted for half the field for more than 25 years, they have accounted for only about 10 percent of department chairs during the past decade. Such other explanations as the notion that women don't compete due to family issues highlight cultural issues that undermine women yet remain pervasive in work environments. "Some women feel there are subtle barriers to their advancement beyond family issues," said SWIM co-chair Jennifer M. McNiff, M.D., professor of dermatology and pathology.

### "Paid less, promoted more slowly"

In 2007, a report from the National Academies of Science titled "Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering," found that women faculty members "are paid less, are promoted more slowly, receive fewer honors, and hold fewer leadership positions than men." These discrepancies, the report continued, did not appear to be based on productivity, significance of work, or other performance measures. Changes in



A typical day sees Weidhaas in the lab with postdocs, in clinic with a cancer patient, and working on her own in the patient planning clinic.



### In the lab, in the clinic, in the board room, and at home: a life in the balance

Growing up alongside a twin brother, it never occurred to Joanne B. Weidhaas, M.D., PH.D., that men and women might be treated differently. She could, she believed, do whatever she wanted to do. Perhaps this notion, which the chief of the breast cancer radiation service at Yale Cancer Center now admits might have been naïve, added fuel to Weidhaas' ambitions to become a physician and a scientist.

Pursuing an M.D./PH.D. at Tufts in 1991, she was charting relatively new territory there for both men and women. Only two classmates were pursuing the dual degrees,

and few faculty had them. "I was feeling my way along," Weidhaas said, noting that she wasn't thinking about male or female role models. "It's been more about finding a physician-scientist role model."

Today, the associate professor of therapeutic radiology and mother of three has become a role model herself as she runs a lab, sees patients, and has founded a company, Mira Dx, with her colleague Frank Slack, PH.D., professor of molecular, cellular, and developmental biology. When Yale M.D./PH.D.s interviewing for residencies at Sloan-Kettering are asked

to name a role model, says colleague Karyn A. Goodman, M.D., they name Weidhaas.

Weidhaas recently discovered a genetic marker for increased risk of ovarian cancer. Her findings, published in *Cancer Research* in July, report that the gene mutation KRAS-variant, present in 60 percent of hereditary breast and ovarian cancer patients tested, is associated with increased ovarian cancer risk and worse outcomes. Now Mira Dx markets a product, PreOvar, that can test for this

CONTINUED ON PAGE 16

Mornings, evenings, and weekends are for her family; husband, A.J., and children Lilly, 11, Andrew, 8, and Ella, 22 months. During a typical weekday evening, Weidhaas arrives home, prepares dinner, then spends time in the gym or reading with her children.



biomarker in female relatives of breast and ovarian cancer patients who also have the marker.

Working with women's cancers, Weidhaas says, "patients are happy I'm a woman." However, when she was interviewing for internships 11 years ago, her mentor at Tufts, also a woman, warned her it was "not a level playing field."

Pregnant with her first child, Lilly, Weidhaas decided, "It's better to tell people I'm having a baby right at the beginning." She had made a huge mistake, her mentor told her.

"Even if you're 100 times better than someone else," she recalled her saying, "they will take someone else because they

just don't know if you can handle it." She realized her mentor had been right when, during her first interview, a department chair "freaked out" about Weidhaas' pregnancy. She ultimately took an internship at Carney Hospital in Boston, where she was able to arrange three months off for the arrival of her daughter.

Weidhaas has juggled her many tasks by learning to do something she feels is difficult for women: to let go and get help. After her second child Drew, now 8, was born, she stopped running experiments and hired Sunitha Nallur to "be my hands in the lab." She has a hand at home, too—Merle, their nanny of 10 years, whom Weidhaas describes as "an integrated part of the family."

Mornings, evenings, and weekends, Weidhaas, her husband, A.J., an attorney who is on the board of directors of Mira Dx, and their three children are "100 percent together. It's all about family. We're together no matter what we do." When the physician/scientist is at work, though, she feels that her children understand that she is trying to make a contribution to the world.

"That's been my hope, that we'll find science that actually could make a difference for people now, not in a hundred years," Weidhaas said. "To help prevent a cancer—or to at least best treat an individual's cancer to give them the best chance for cure—it's really the ultimate dream."

—Sonya Collins



institutional culture would be needed to recruit, retain, and promote more women. “We have these climate issues that are part of the American culture, and they’re manifest here the way they would be anywhere else,” said Mazure.

Those issues are “microinequities,” ostensibly small matters that interfere with a faculty member’s efforts to advance or work effectively. In a SWIM-sponsored presentation at the medical school in April, “The Fallacy of Fairness,” one of the contributors to the “Beyond Bias” report, Jo Handelsman, PH.D., professor of molecular, cellular, and developmental biology, cited research showing that even though they intend to be fair, both men and women can hold implicit biases. They may rate a job performance lower if told it involved a woman. They may be more likely to hire a candidate if a male name appears on the CV, and in letters of recommendation they may refer to men as “researchers” and “colleagues” and to women as “teachers” and “students.” Collectively, these inequities take their toll, creating an environment with unnecessary barriers to women.

“Both men and women have unconscious biases,” said Merle Waxman, M.A., associate dean and director of the Office for Women in Medicine. “It’s a matter of making people conscious of them, and we’re trying to do that through diversity training.”

That training began in 2009, and the medical school revamped its recruitment procedures in the process. Search committees now include a diversity representative to minimize the influence of biases. Diversity training strives to make faculty aware of biases and assumptions that can influence the search, such as undervaluing or unfairly attributing the work of women or minorities. Committee chairs are also advised on how to run a fair and proactive search process, and they are encouraged to brainstorm strategies for increasing diversity. Such strategies include inviting women and other underrepresented minorities to participate in department-sponsored symposia and visiting appointments.

“There clearly is a bias,” said Alpern. “We’ve had a number of sociologists come visit, and the more we can educate the search committees about these biases, the more it will help. ... All of these things help, but we have a long way to go.”

### **The importance of role models**

For many women, mentoring has played a pivotal role in their careers. Hostetter, the former chair of pediatrics, was discouraged from going into medicine by her mother, herself a physician. D’Onofrio started out as a nurse rather than a doctor because there were few mentors to guide her. Last year an ad hoc committee at the medical school reviewed existing mentoring programs to develop a template that would define requirements and procedures for evaluation and promotion and provide structured mentoring for new hires and for faculty at critical junctions in their careers. “We have to find women in every department—and they’re there—and give them the skills and opportunities to mentor,” said D’Onofrio.

The impetus to move forward is not just internal. The Liaison Committee on Medical Education, which accredits all U.S. and Canadian schools that confer the M.D. degree, has taken an interest in how faculty are mentored, said Linda K. Bockenstedt, M.D., HS ’85, the Harold W. Jockers Professor of Medicine and director of professional development and equity. Her position was created to examine mentoring systems and to focus on issues related to gender and underrepresented minorities.

One of the major challenges for women today—just as it was for D’Onofrio—is balancing careers and personal lives. “For me, having kids and family and this career has meant that by and large I don’t do anything else,” said Laura E. Niklason, PH.D., M.D., professor of anesthesiology and biomedical engineering. Fourth-year medical student Lara E. Rosenbaum said that she and her classmates—men and women alike—wonder how they’ll balance a family and career. “I’m working hard on this with my faculty, because if people don’t have that balance, they won’t be successful in their careers,” said Roberta L. Hines, M.D., HS ’83, FW ’84, chair and the Nicholas M. Greene Professor of Anesthesiology.

Among the steps Yale is taking to address these issues is the Faculty Advancement Series sponsored by the Office for Faculty Affairs, a series of lectures on wide-ranging topics that include demystifying the promotion process, mentoring, and developing child care options for faculty. “We’re trying to help clarify the process of promotion and what one has to achieve to make associate professor and professor in different tracks,” said Bockenstedt.

Yale has also re-examined the promotion clock and the length of child rearing leave. Faculty can now delay the promotion process for one year without being penalized if they wish to have or adopt a child, and paid childrearing leave has been extended to eight weeks. Space has also been allocated for lactation rooms. A SWIM survey highlighted the need for additional child care facilities, a key issue when recruiting both male and female faculty. “It’s a family issue, not just a women’s issue,” said SWIM co-chair Paula B. Kavathas, PH.D., professor of laboratory medicine, genetics, and immunobiology.

While most young women today choose medicine without facing the resistance that D’Onofrio and others encountered, many realize the road that their mentors have traveled. “I’m grateful to the generations of physicians who overcame gender barriers that existed,” said Katriina Hopper, M.D., HS ’10, a fellow in geriatrics. “It’s a great time to be a woman in medicine.” But those further along in their careers remember the battles and recognize the challenges ahead. “There have been a lot of positive changes, but it does require constant vigilance, and we have a lot more to do,” said Mazure. “It’s a matter of continuing to foster change so all faculty members, women and men, can receive the full recognition they deserve and feel gratified by what they do.”

Jill Max is a freelance writer in Trumbull, Conn.



Philip Reilly has combined genetics and business by forming companies that combat disease. "When a venture capital firm commits to funding a very rare disorder, it is in effect pouring more money into that disease than the NIH is," he says.





# When medicine meets the business world

Yale alumni heal the sick—not at the bedside one by one but in the boardroom by the thousands.

By Jenny Blair

The symptoms emerge in early childhood. A previously healthy boy starts to have trouble in school. Soon his hearing and vision are impaired. After that, the course is rapid: dementia, a vegetative state, and death. Boys with X-linked adrenoleukodystrophy (X-ALD) are genetically unable to break down very long-chain fatty acids, which accumulate in cells and destroy the myelin in the central nervous system. The short list of therapeutic options includes bone marrow transplantation, but that does little good once the symptoms are far advanced; moreover, not all affected boys can find a match.

That was the case for two 7-year-old boys with X-ALD for whom no marrow donor could be found. But when a team of researchers in France treated the boys with an engineered lentivirus that introduces a good copy of the faulty gene, the procedure halted the progression of their illness and made the pages of *Science* in 2009. The boys are now leading largely normal lives, and global trials of that engineered agent as well as agents for two other genetic diseases will soon begin.

The virus was developed (and the trials will be run) by a company called Genetix Pharmaceuticals in Cambridge, Mass.—and it was a Yale physician and venture capitalist who played a key role in the decision to fund that company. Philip R. Reilly, M.D. '81, J.D., also a lawyer, author, internist, and clinical geneticist, wants to combat genetic diseases by merging business and medicine. “We represent the major hope for their lives,” he said of the families of patients with rare genetic

diseases. “When a venture capital firm commits to funding a very rare disorder, it is in effect pouring more money into that disease than the NIH is.”

Reilly is one of a number of medical school alumni who have entered the business world. While some continue to practice medicine, others find entrepreneurship or venture capital to be more rewarding than clinical work. And contrary to the less-than-noble image they may have in the eyes of medical colleagues, some continue to save lives from their desks.

While they still represent a small fraction of physicians, M.D.s are becoming an increasingly common presence in the halls of venture capital firms, banking, and startup companies. There are few mentors to point young doctors toward careers in business, and physicians drawn to such work undergo a lot of soul-searching. Sometimes they face criticism from friends or colleagues who expect them to fill the traditional role of doctoring the sick one by one. How can someone enter the noblest profession, then leave it? Is there something grasping or acquisitive about such an impulse? But physicians who become entrepreneurs or venture capitalists have seen firsthand that medical skills can be leveraged in the business world through decisions that can help thousands of sick people at once. An experienced physician's informed decision about a new business idea can lead to a treatment that transforms the standard of care. A doctor-researcher who shepherds a scientific discovery through its licensure, funding, and development



may in some sense be more effective than one who moves on to new science after publishing the novel findings. Perhaps it's ironic that such doctors can far outpace their clinical colleagues in terms of numbers of lives saved.

For Sara Nayeem, M.D. '06, M.B.A. '06, sitting at the bedside didn't feel right. But this recognition took time. While deferring medical school, she spent two years working on Wall Street for Morgan Stanley. When she matriculated at the School of Medicine, she found herself drawn to biotech consulting projects through the School of Management as well as a health policy journal through Yale Law School.

"Once I started the M.B.A. classes after the third year of med school," she said, "I realized that I enjoy business strategy and financial analysis more than pure clinical reasoning." She had found during her years on Wall Street that she enjoyed "digging into" multiple discrete projects that each lasted a few months. Outpatient clinics, on the other hand, made her restless. "Seeing a patient for 20 or 30 minutes two or three times a year did not provide enough continuity for me. ... I enjoyed thinking about the other issues around medicine [more] than just the straight clinical questions. Something that's more creative and more strategic. Clinical medicine had begun to seem very algorithmic to me and very repetitive."

After much soul-searching, Nayeem decided not to enter a residency program. She worked instead as an investment banker at Merrill Lynch, then joined a venture capital firm, New Enterprise Associates, in Chevy Chase, Md. Since starting there in January 2009, she has examined well over 150 biopharmaceutical companies to decide whether to invest in them. "I'm thinking through their strategies. What's the market for this particular drug or device? What do we think of the clinical data? How does it fit into a treatment paradigm? ... It's a perfect mix of things I enjoy."

When Stephen C. Knight, M.D. '90, M.B.A. '90, an English major who especially liked poetry, arrived at Yale in 1985, his heart was set on academic research. He had already begun work at Bell Laboratories and the National Institutes of Health and, building on those efforts, he started to investigate how research in artificial intelligence might improve medical decision making. "Maybe this should be a business," he recalls thinking. He "wandered over" to the business school and impulsively decided to apply. "I was very naïve," he said. "I didn't know what consulting, investment banking, or venture capital were. It opened my eyes to a world I didn't even know existed." But what he did know was that he was different from his medical school classmates, some of whom seemed born to be doctors. Though he valued the humanitarian aspects of medicine, Knight came to understand that if medicine is a calling, others heard the voice louder. "I didn't want to always pick up *Harrison's*," he said. "I'd much rather read *The New York Times*."

In the last 20 years, Knight has relished the marriage of the scientific and humanitarian aspects of medicine and the

practical power that companies can provide. He worked as a consultant for mergers and acquisitions in the pharmaceutical industry, served as president and COO of a public biotechnology company called Epix, and has helped start several health care companies (one of them with his wife, Elizabeth Quattrochi Knight, M.D. '94, PH.D. '94). For the past seven years he has served as the president and managing partner of Fidelity Biosciences, Fidelity Investments' health care venture capital arm. "We have a great group of M.D.s (a few from Yale) and PH.D.s whose accomplishments and intellectual horsepower rival that of any academic department, and we are investing over a half-billion dollars in companies all over the world, many of whose therapies we are convinced will save lives and decrease suffering. This is what I hoped for over two decades ago when I wandered down Hillhouse Avenue to the School of Management."

Other physician-entrepreneurs have turned their liking for science into a viable enterprise. Owen Garrick, M.D. '98, M.B.A., is chief operating officer of Bridge Clinical, a company that manages clinical trials of treatments for diseases of underserved populations. A love of banking and a business degree from Wharton after medical school led him to positions at Morgan Stanley, Goldman Sachs, Merck, and ultimately to McKesson and Novartis, where he was head of mergers and acquisitions. The latter jobs, he said, "put me firmly where I was very close to the science, evaluating companies from a financial perspective but also from a scientific and clinical perspective." He too had been restless at the bedside as a medical student, and as he began to think about residencies, he realized that his heart just wasn't in clinical medicine and decided to forgo further medical training.

That's a risky proposition when you're fresh out of medical school and burdened with debt. Nayeem recalls a friend who didn't find a business job for months after medical school, even as he watched classmates launch their clinical careers. But M.D./M.B.A. types, Garrick says, tend to be creative and risk-seeking. "You have to be comfortable venturing out where there has not been a lot of groundwork laid before. And you have to be by definition interdisciplinary."

Given that doctors who leave the bedside for the business world are sometimes dismissed as opportunists, it may be surprising that many of them say they do it to help people. Like physicians who work in public policy, they relish the idea of helping people by the thousands or even millions. Reilly's personal goal is to start 10 companies to treat 10 rare genetic diseases and save 100,000 lives each year. Garrick likes the idea of using the resources of a large corporation to make a large-scale impact in health care. "Maybe we'll luck out and launch a drug that cures 2 million people," he said.

That scale is familiar to one Yale physician who has been at the forefront of drug development for more than two decades. In 1986, while still a hematology/oncology house officer at the University of California, San Francisco, Howard



S. Jaffe, M.D. '82, was hired by Genentech, a company that has been called the founder of the biotechnology industry. It was itself begun by Herbert W. Boyer, PH.D., FW '66, a pioneering scientist in recombinant DNA. For six years Jaffe worked on interferon-gamma, tumor necrosis factor, and anti-HER2 antibodies; he then joined the biopharmaceutical company Gilead Sciences as vice president of clinical affairs. Jaffe continued to practice medicine until 2000, driving to San Francisco General Hospital for morning rounds, proceeding to Gilead's headquarters in Foster City, then returning to the hospital on the way home. He worked on Gilead's major antiviral medications, including oseltamivir (Tamiflu) and the HIV drugs tenofovir (Viread) and emtricitabine (Emtriva). Now president of the Gilead Foundation, he gave up clinical medicine in 2000. "When I look back at the good I've done at various times in my life," said Jaffe, "nothing equals what I'm doing now."

Like Jaffe, Reilly maintained dual professional roles in medicine and business until recently. He said he hasn't met with any stigmatization from medical colleagues—in fact, he has found that many doctors react to his career with great interest. But Nayeem has had to mail articles from *The Wall Street Journal* about her business deals to skeptical family members who didn't think what she was doing was important. And Knight recalls that when he was in medical school, "it was apostasy not to go on [to residency]." Even to some physician-entrepreneurs, it still is.

"When I meet doctors who are in business but just did medical school and nothing else," said Reilly, "I react negatively to that. I don't think they're real doctors, frankly." He has more respect for physicians who have practiced medicine. For her part, Nayeem thinks of herself as a venture capitalist rather than a physician and does not regret having skipped a residency, saying that for purposes of understanding the medical side of a business proposal, "You can get 90 percent of the way there as long as you can read the literature."

Venture capitalist Gregory P. Licholai, M.D. '95, M.B.A., decided to make a "clean break" during his residency. Out of curiosity about the ways in which business and medicine influence each other, he began an M.B.A. while a neurosurgery house officer at Brigham and Women's Hospital in Boston. Much to his surprise, he loved his business courses. And as he considered ways to stay involved in the business world, he couldn't see a realistic way to practice neurosurgery part time. "It was the fact that I was a surgery resident, in particular a neurosurgery resident, that kind of informed the decision [to leave medicine]. ... I wanted to be good at one thing rather than mediocre at two."

A relentless focus on the practical, on what plan will actually succeed, is central to both clinical work and entrepreneurship and is part of the pleasure of each. Will a treatment prove clinically significant? Will a business earn money for stockholders? But some physician-entrepreneurs, particularly those involved in research, take that priority a step further.



**Stephen Knight realized in medical school that the bedside was not the place for him. Instead, he "wandered over" to the School of Management. Now he is the president and managing partner of Fidelity Biosciences, which has invested \$500 million in companies around the world that are advancing therapies.**



MARTIN KLIMEK (2)

**TOP** James Campbell moved from neurosurgery to venture capital with his discovery that a topical patch could help people with abnormal sensitivity to pain. At the time, he recalls, considering the business side of medical research was “like talking to the devil.” He has since launched four companies.

**ABOVE** After medical school Owen Garrick worked on Wall Street, where he evaluated companies from a scientific and medical perspective. Now he is chief operating officer of Bridge Clinical, a company that manages clinical trials of treatments for diseases of underserved populations.

The desire to see a discovery reach patients can itself be the force that drives a physician to the boardroom.

If you want to see new and effective treatments make it all the way to patients, said James N. Campbell, M.D. '73, also a neurosurgeon, “just sitting in your lab and coming up with new targets [is] not in itself sufficient.” In addition to his clinical practice, Campbell conducted groundbreaking NIH-funded laboratory research into the neurobiology of pain as a professor at Johns Hopkins. When his lab discovered in the late 1980s that a topical clonidine patch could help patients with abnormal sensitivity to pain, Campbell approached a pharmaceutical company and then the Hopkins patent office, thinking that the discovery would attract commercial interest.

It didn't. At that time, he said, the notion that chronic pain merited pharmaceutical interest was novel, and no one seemed to think the idea had commercial value. The term “neuropathic pain” had begun to appear in the literature only recently, and doctors and patients treated all kinds of pain with NSAIDs, acetaminophen, and opioids. “I ran into a stone wall. There was just zero interest.” But Campbell couldn't let the discovery drop. Hopkins allowed him a waiver, granting him the right to independently patent and license his discovery. Several years and patents later, a venture capitalist approached him. And it was in conversation with that man, Campbell says, that a light switch went on.

“At that time,” he said, “the ethos at Hopkins and probably at other places was that you just didn't dirty your hands by considering the commercial translation side of things. That was almost like talking to the devil.” Yet he had begun to understand that lab work is only the first step. If he wanted to have a measurable effect on patient care, he would have to be a savvy promoter of his ideas in order to find a commercial partner with the money to develop them.

“If you publish the cure for cancer and you don't have the patent protection,” he said, “it'll never see a patient. No one's going to spend \$50 million or \$100 million to get it through the FDA and trials in order to offer it to patients. ... As I think back on it, how incredibly naïve I was not to understand that. I think that epitomized much of the academic world.”

Tempted to switch careers, Campbell thought long and hard about leaving academic neurosurgery. It felt like an existential battle between what he wanted to try and what he had been trained to do. But he began to feel that he had been too sheltered, his field too narrow. “I thought that this venture world was amazing. It meant that every article in *Science* and *Nature* that I read could potentially be of some interest to me. ... [The] kernel of an idea could transform our care of patients. That was just staggeringly awesome to me.”

So he took the plunge. With the blessing of supportive colleagues at Hopkins and in gradual stages, Campbell wound up his research career, gave up his surgical practice, and moved to Menlo Park to do a sabbatical at a major venture capital firm in the life sciences and to work on forming companies based on



his patents and other ideas. Then he helped launch a new company based purely on Hopkins technology in immunotherapeutics. “The first book I bought was a book on molecular biology,” he recalls of the steep learning curve that confronted him in his first business job—he had not only to bone up on business but also update his knowledge of sciences that had advanced while he’d been focused on his more narrow neurosurgical research. After helping found a second company, Campbell now heads a third company and is starting up a fourth. “Every day is a new challenge and a new opportunity. It’s a real roller coaster.”

Research and publication in the academic world are all very well. But Campbell is concerned that academic discoveries don’t go far enough. “There’s a saying that truth is the daughter of time. ... But unless you’re passionate about pursuing it, time is not necessarily on your side. If you have great ideas and you don’t have the passion to see it through, you have to be prepared to see these ideas die away.”

Campbell does not have an M.B.A., and he did much of his learning about running a company on the job. But even doctors with M.B.A.s may not be adequately prepared for the biotech world. “We do not do a sufficient job in training people for translation,” he said, referring to the process of turning scientific discoveries into commercialized treatments that are readily available to patients. “Medical students get some exposure to basic research but typically get very little exposure to the vast gulf between discovering a target and then figuring out how to exploit that target and ultimately get the therapeutic innovation to the patient.”

Pharmaceutical companies, he said, generally turn to contract research organizations rather than university centers to get clinical trials done. “The more efficient development path is outside the academic institutions—which just often have little clue of what’s involved in drug development.”

That could change, he said, if curricula are updated. “What we need is an M.B.A. with another initial, referring to training for business people going into biotechnology.”

Education for doctors might also overcome what Licholai calls an outdated mindset. In medical school, he recalls, “there was always this kind of negative opinion about people going into business—it wasn’t creative, it wasn’t intellectual, it was the dark side. I have to say, 100 percent of my experience has been really almost the opposite. Just about all the people that I know who are working in companies, whether it’s biotech companies or big pharmaceutical companies, they have a tremendous ethical sense and tremendous sense of responsibility for what they’re doing. ... We’re not talking about the 19th-century robber baron corporations who enslave children.” He would like to see physicians gain a better understanding about how medical discoveries are paid for—that new ideas for patient care need access to capital in order to be realized. “It’s that piece that somehow needs to get incorporated into medical education,” he said. “We really are working toward the same goals.”

—Jenny Blair, M.D. '04, is a writer and physician in New Haven, Conn.

## The entrepreneurs

**Fred Aslan, M.D. '01, M.B.A.** Vice president of Venrock, a venture capital firm

**James N. Campbell, M.D. '73** President and CEO of Arcion Therapeutics, executive in residence at InterWest Partners, and professor of neurosurgery, Johns Hopkins University

**Samuel F. Colin, M.D. '92** Portfolio manager at First Manhattan Co.

**Guy L. Fish, M.D. '85, M.B.A. '94** Vice president at Fletcher Spaght, which comprises Fletcher Spaght Inc. Consulting and Fletcher Spaght Ventures

**Owen Garrick, M.D. '98, M.B.A.** COO of Bridge Clinical, a company that manages clinical trials of treatments for diseases of underserved populations

**Myles D. Greenberg, M.D. '93** Partner at CHL Medical Partners, where he is active in the biotechnology, medical device, and health care services sectors

**Shih-Yin Ho, M.D. '96, M.B.A.** Founder (with **Owen Garrick, M.D. '98, M.B.A.**) of Context Matters LLC, a health care information and risk metrics company

**Stephen C. Knight, M.D. '90, M.B.A. '90** President and managing partner of Fidelity Biosciences, the health care venture capital arm of Fidelity Investments

**Gregory P. Licholai, M.D. '95, M.B.A.** COO of Proteostasis Therapeutics, a biotechnology company

**Diane Louie, M.D. '87, M.P.H.** Regulatory liaison to the FDA for Sanofi-Aventis

**Ted W. Love, M.D. '85** Executive vice president for research and development at Onyx Pharmaceuticals

**Richard M. Low, M.D. '76** CEO of Infor-Med Corp. of Buenos Aires and Woodland Hills, Calif.

**Howard S. Jaffe, M.D. '82** President of the Gilead Foundation and a member of Gilead’s senior management team

**Sara Nayeem, M.D. '06, M.B.A. '06** Principal in New Enterprise Associates, a venture capital firm, where she focuses on investments in biopharmaceutical companies

**Gregory S. Raskin, M.D. '98** Vice president and research analyst at AllianceBernstein in New York City

**Philip R. Reilly, M.D. '81, J.D.** CMO of Genetix Pharmaceuticals, venture partner at the biotech venture firm Third Rock Ventures, and a member of the board of Edimer Pharmaceuticals

**Gualberto Rúaño, Ph.D. '92, M.D. '97** President and CEO of Genomas, a biomedical company based in Hartford, Conn.

**Martin B. Silverstein, M.D. '80** Senior partner and managing director at Boston Consulting Group, where he leads the company’s health care practice globally.



Are you working in health care policy or another of the fields we’ll be profiling in our “Alumni Career Paths” series? Do you know medical school alumni, former Yale house staff, or fellows who are? Send us the names and then check the Web edition of *Yale Medicine* to view an expanding list of alumni with similar interests. You can write to us at [yym@yale.edu](mailto:yym@yale.edu) and view the list at [yalemedicine.yale.edu](http://yalemedicine.yale.edu).

### “Alumni Career Paths” future articles:

- International health and research
- The front lines of clinical practice
- Military medicine
- Biotech, pharma, and business
- Academic medicine
- Physician/writers



Michael Caplan

### New physiology chair appointed

**MICHAEL J. CAPLAN, M.D. '87, PH.D. '87**, was appointed chair of the Department of Cellular and Molecular Physiology, effective April 1. Caplan is an expert in membrane trafficking and the regulation of ion transport proteins in the kidney, as well as the cellular and molecular mechanisms involved in polycystic kidney disease. He is the C.N.H. Long Professor of Cellular and Molecular Physiology and professor of cell biology. He also serves as associate director for basic research for the M.D./PH.D. Program at the School of Medicine.

Caplan's laboratory focuses on the molecular signals and cellular machinery involved in generating epithelial polarity.

He has received numerous awards, including the School of Medicine's Charles W. Bohmfalk Teaching Prize, a science and engineering fellowship from the David and Lucille Packard Foundation, the Young Investigator Award of the American Society of Nephrology, the Henry Pickering Bowditch Award Lectureship of the American Physiological Society, and a National Science Foundation Young Investigator Award.

Caplan has led the department since 2008, following the death of his colleague and predecessor, Steven C. Hebert, M.D.



Ruslan Medzhitov

### Immunobiologist named to National Academy

**RUSLAN M. MEDZHITOV, PH.D.**, the David W. Wallace Professor of Immunobiology and a Howard Hughes Medical Institute investigator, was elected a member of the National Academy of Sciences in April for excellence in original scientific research. Medzhitov came to Yale in 1994 as a post-doctoral fellow in the laboratory of the late Charles A. Janeway Jr., M.D. While a graduate student at Moscow State University, Medzhitov had become fascinated by Janeway's theory regarding the interaction of the innate and adaptive immune systems. In 1996, the two researchers made the groundbreaking discovery that Toll-like receptors, a component of the innate system, provide the adaptive system with the necessary information to create custom-made B and T cells that target specific bacterial or viral invaders.

Since then, Toll-like receptors have become the subject of intense research activity in laboratories around the world. In December, Medzhitov received the 2010 Lewis S. Rosenstiel Award for Distinguished Work in Basic Medical Science.

Medzhitov was born in Tashkent, Uzbekistan, and earned a B.S. degree at Tashkent State University before pursuing a doctorate in biochemistry at Moscow State University.

His election as one of 72 new members of the National Academy of Sciences brings the number of current Yale faculty who are members to 60. He will be inducted into the Academy next April during its 148th annual meeting in Washington, D.C.



Joseph Craft



Liana Fraenkel



John Krystal



Robert Sherwin

Twelve members of the Yale faculty, including 10 from the School of Medicine, were elected to the Connecticut Academy of Science and Engineering in April. Election is based on scientific and engineering distinction achieved through significant contributions, both theoretical and applied. The newly elected Yale faculty members are **Michael J. Caplan, M.D. '87, PH.D. '87**, chair and C.N.H. Long Professor of Cellular and Molecular Physiology; **Michael Cappello, M.D.**, professor of pediatrics, microbial pathogenesis, and epidemiology and public health, and director of the Yale World Fellows program; **Richard E. Carson, PH.D.**, professor of diagnostic radiology and of biomedical engineering, and director of the Yale PET center; **Sir Peter Crane, PH.D.**, Carl W. Knobloch Jr. Dean of the School of Forestry and Environmental Studies and professor of botany; **Durland Fish, PH.D.**, professor of epidemiology (microbial diseases); **David A. Hafler, M.D., M.Sc.**, chair and Gilbert H. Glaser Professor of Neurology; **Karl L. Insogna, M.D.**, professor of medicine (endocrinology) and director of the Yale Bone Center; **Susan T. Mayne, PH.D.**, professor of epidemiology (chronic diseases); **Carolyn M. Mazure, PH.D.**, professor of psychiatry and psychology and associate dean for faculty affairs; **Lisa D. Pfefferle, PH.D.**, C. Baldwin Sawyer Professor of Engineering; **G. Shirleen Roeder, PH.D.**, Eugene Higgins Professor of Molecular, Cellular, and Developmental Biology and professor of genetics; and **Robert J. Schoelkopf, PH.D.**, William A. Norton Professor of Applied Physics and Physics.

**Joseph E. Craft, M.D., HS '77, FW '85**, professor of medicine and of immunobiology, chief of rheumatology, and director of investigative medicine, was appointed the Paul B. Beeson Professor of Medicine in February. Craft is an internationally recognized expert on the pathogenesis of systemic autoimmune diseases. He and his research team seek to define the mechanisms of loss of self-tolerance and activation of autoreactive T-cells in systemic autoimmune diseases, and the differentiation and regulation of T-cells in normal immune responses. He is the author of over 140 scientific publications. Craft joined the faculty as an assistant professor in 1985 after completing an internship and residency at Yale-New Haven Hospital and a fellowship in rheumatology. The chief of the Section of Rheumatology since 1991, Craft has directed the Yale Investigative Medicine Program since 2004. He also serves as chief of rheumatology at Yale-New Haven Hospital. Craft won the School of Medicine's Charles W. Bohmfalk Teaching Prize in Basic Sciences in 2004. He has been elected a fellow of the American Association for the Advancement of Science and a member of the American Society for Clinical Investigation.





**William  
Tamborlane**



**David Walker**



**Mary Warner**



**Robert White**

**Liana Fraenkel, M.D., M.P.H.**, associate professor of medicine, received the 2009 American College of Rheumatology (ACR) Henry Kunkel Young Investigator Award, which recognizes a young scientist (under 45) for outstanding contributions to basic or clinical science. The award was presented on October 17, 2009, at the ACR's annual scientific meeting in Philadelphia.

**John H. Krystal, M.D.** '84, HS '88, is one of six mental health professionals to receive an award from the American College of Psychiatrists at its annual meeting in February. Krystal, the Robert L. McNeil Jr. Professor of Translational Research and chair of the Department of Psychiatry, received the Stanley Dean Research Award, which honors an individual who has had a major impact on the treatment of schizophrenic disorders. Krystal's seminal contribution to the field was the development of the ketamine model, an approach that highlights the role of NMDA receptors in cognition and behavior and guides the development and testing of promising new approaches to the neurobiology and treatment of schizophrenia.

**Robert S. Sherwin, M.D.**, FW '74, the C.N.H. Long Professor of Medicine, was appointed chief of endocrinology in the Department of Internal Medicine at Yale-New Haven Hospital and the School of Medicine in March. Sherwin also directs the Yale Center for Clinical Investigation and the Diabetes Endocrinology Research Center. He is the principal investigator of the Clinical and Translational

Science Award at Yale, the largest research grant awarded to the University to date. He has previously served as the program director of the General Clinical Research Center.

**Frank Slack, Ph.D.**, professor of molecular, cellular and developmental biology, was appointed director of Yale Cancer Center's Genetics and Genomics Research Program this spring. Slack uses the roundworm *C. elegans* to study the role of microRNAs in gene expression. His research has shown that the human microRNA *let-7* is expressed in the lung and regulates the expression of important oncogenes implicated in lung cancer. He now focuses on the role of *let-7* in regulating proto-oncogene expression during lung development and cancer.

**William V. Tamborlane, M.D.**, FW '77, professor of pediatrics (endocrinology) and a world-renowned pioneer in the understanding and treatment of childhood diabetes and related disorders, received the Outstanding Physician Clinician Award from the American Diabetes Association in June, one of the association's highest honors. Tamborlane is chief of pediatric endocrinology at the School of Medicine. His major achievements have included pioneering

work in the development of insulin pump therapy, continuous glucose monitoring, sensor-augmented pumps, closed-loop systems, and development of an artificial pancreas.

**David M. Walker, M.D.**, assistant professor of pediatrics (emergency department), has been awarded a 2010-2011 Fulbright grant by the U.S. Department of State and the J. William Fulbright Foreign Scholarship Board. Walker will be based at the pediatric emergency service of the Queen Elizabeth Central Hospital in Blantyre, Malawi, the main teaching hospital of the University of Malawi College of Medicine. He will serve as a visiting lecturer in the Department of Pediatrics and will collaborate on research to evaluate protocols that guide the initial identification and management of children with traumatic injuries and burns. Walker graduated from Yale University in 1996 and attended the College of Physicians & Surgeons of Columbia University, graduating in 2002. He completed residency training in pediatrics at the Mount Sinai Medical Center in New York and a fellowship in pediatric emergency medicine at the Children's National Medical Center in Washington, D.C. Walker has been on the faculty at Yale and an attending physician in the pediatric emergency department of the Yale-New Haven Children's Hospital since 2008.

**Mary L. Warner, M.M.Sc., PA-C**, associate dean and program director, Yale Physician Associate Program, and assistant professor of medicine, has been appointed to a four-year term on the board

of directors of the National Commission on Certification of Physician Assistants (NCCPA). Her term began in January 2010. Headquartered near Atlanta, NCCPA is the only national certifying body for the physician assistant profession. As a member of NCCPA's board, Warner lends her expertise in PA practice and education to an organization committed to ensuring that those certified are knowledgeable and that they uphold professional standards.

**Robert White Jr., M.D.**, professor of diagnostic radiology and director of the Yale Vascular Malformation Center, traveled to Buenos Aires in March for the signing of an agreement to establish the first center in Latin America to treat hereditary hemorrhagic telangiectasia, a rare vascular disease. The center will be a collaborative enterprise between the University of Buenos Aires and Yale. The future director of the center, Eduardo Eyheremendy, M.D., trained with White at the School of Medicine.

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**SEND FACULTY NEWS TO**  
Claire M. Bessinger, *Yale Medicine*,  
300 George Street, Suite 773,  
New Haven, CT 06511, or via e-mail  
to [claire.bessinger@yale.edu](mailto:claire.bessinger@yale.edu)

## A call to be not just doctors but healers

This year's Commencement speaker urged graduates to remember their patients' humanity.

As a hazy morning became a sunny afternoon on May 24, the 110 graduates of the Class of 2010 became doctors. But Commencement speaker Donald M. Berwick, M.D., invited them to an even higher calling. "Those who suffer need you to be something more than a doctor; they need you to be a healer," he told the graduates.

Berwick was nominated in April by President Barack Obama to lead the Centers for Medicare and Medicaid Services, a federal agency within the Department of Health and Human Services that plays a key role in

implementing health care reform. (His nomination is awaiting action by the United States Senate, which must confirm the appointment.) He is chief executive officer of the Institute for Healthcare Improvement, professor of health policy and management at the Harvard School of Public Health, and senior scientist in the Department of Social Medicine and Health Inequities at Brigham and Women's Hospital. Berwick is also the father of Jessica Berwick, M.D. '10.

He began his remarks by reminiscing about her birth. Holding his wife's hand as Jessica was delivered "was one of the peak moments of my entire life," he said, adding that only a few years earlier a father would not have been allowed to be present at a Caesarean section. "Then somebody changed the rule—somebody courageous, I suspect."

Berwick then fast-forwarded in time to an e-mail he received in 2009 from Jocelyn Anne Gruzenski, the wife of a psychiatrist in northeastern Pennsylvania, lamenting that she could not spend more time with her husband in his final days because of hospital visiting restrictions. "I feel it

was a very cruel thing that was done to us," she wrote.

When the gatekeepers invoked hospital rules about visitors, William Gruzenski, M.D., would insist that "she's not a visitor. She's my wife." Berwick argued that the Gruzenskis had made a home in each other, even if that home was a hospital room. The doctors and nurses, he said, were the real visitors in that situation.

"Society will let you build walls and let you write rules. And in that role, with that power, you will meet Dr. and Mrs. Gruzenski over and over again," he said, urging the new graduates to respect the dignity and humanity of their patients.

This year's Bohmfalk Prizes for excellence in teaching went to Peter A. Takizawa, PH.D., assistant professor of cell biology, and Matthew R. Grossman, M.D., HS '06, assistant professor of pediatrics. The Alvan R. Feinstein Award was presented to Cyrus R. Kapadia, M.D., professor of medicine (digestive diseases). The Leonard Tow Humanism in Medicine Award was given posthumously to the late Diana S. Beardsley, M.D., PH.D., FW '76, associate professor of pediatrics. Jessica L. Illuzzi, M.D., M.S., HS '02, assistant professor of obstetrics, gynecology, and reproductive sciences, and Benjamin R. Doolittle, M.Div., M.D. '97, HS '02, assistant professor of medicine and of pediatrics, shared the Lowenstein Award. The class presented the Francis Gilman Blake Award to Aldo J. Peixoto, M.D., associate professor of medicine (nephrology). Loren Berman, M.D., a resident in surgery, won the Betsy Winters House Staff Award.

—Colleen Shaddox



TERRY DAGRADI



JOHN CURTIS (2)

**ABOVE** Bagpiper Glenn Pryor led the Commencement procession down Cedar Street to the ceremony in Amistad Park.

**TOP RIGHT** Kemunto Mokaya, left, and Gifty Kwakye, center, helped Esi Nkyekyer with her robe.

**BOTTOM RIGHT** Kathryn Giblin and Maria Han chatted with Dean Robert Alpern before the procession to Old Campus.



## An alumnus describes his 40-year odyssey in medicine to students beginning theirs

The career of Lewis Landsberg, M.D. '64, HS '70, took him from Yale to the NIH, back to Yale, then to the banks of the Charles River in Boston, and finally to Chicago's Northwestern University. Landsberg, who retired as dean of Northwestern's Feinberg School of Medicine in 2007, returned to Yale on May 11 to deliver the Farr Lecture on Student Research Day.

After describing what he called his 40-year odyssey in academic medicine—he is an expert on hypertension, metabolic syndrome, and obesity—Landsberg had some advice for medical students in the auditorium of The Anlyan Center.

"In scientific inquiry, let curiosity be your guide," he said. "The most interesting and important discoveries are frequently counter to your original hypothesis. You should never ignore seemingly discordant results."

Few scientists have not had a grant application rejected, he said, urging students to be persistent. "Don't get discouraged," he said. "Good ideas win out in the long run."

And noting his own good fortune in having had several strong mentors, including Paul B. Beeson, M.D., chief of internal medicine at Yale in the 1960s, he told students that mentors do more than help shape a career. "They embody an aspiration to be better," he said. "They provide a role model that inspires us."

Earlier in the day 71 students, including six from the School of Public Health and 11 in the M.D./PH.D. program, presented posters of their original research in the atrium of The Anlyan Center.

Topics ranged from genetic risk factors for asthma to the use of cell phones in South Africa as a means of improving postnatal care to studies of protein signaling in squamous cell carcinoma.

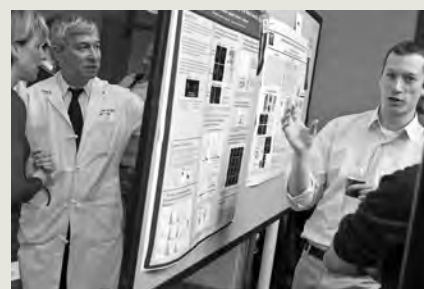
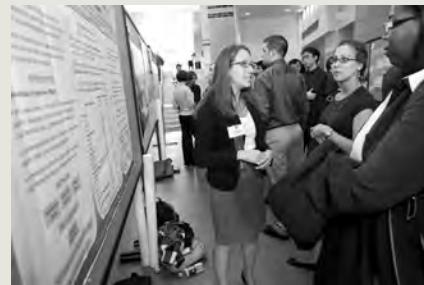
Five medical students—David Gimbel, Elizabeth Kvach, Yasha Modi, Katherine Mullen, and Palioura Sotiria—gave oral presentations of their award-winning theses.

Among those presenting posters in the atrium was Sachin J. Shah, who's taking a fifth year to complete his medical studies. His research looked at the impact of financial stress on recovery after myocardial infarction. Although he found no causal relationship, he said, such stress correlates with worse outcomes. "High financial stress modifies outcomes after heart attacks such that patients are in worse physical health, they are in worse mental health, and they are more likely to have worse quality of life."

Rocksheng Zhong, a second-year medical student, used a survey to study how pediatric resuscitation decisions are made. He asked participants to decide whether to resuscitate pediatric patients in three scenarios of acute distress. One patient was a premature infant and another was a full-term infant. Both patients had a 50 percent chance of being disabled after resuscitation. The third patient was a seven-year-old who already had disabilities. "Participants in the study," Zhong said, "were much less likely to say that they would resuscitate the infant compared to the seven-year-old. We found that the effect was driven not by age but by disability status. There appears to be a sense of being responsible for creating a loss. You have a disabled kid where before you had a healthy kid. ... This has ethical implications."

Health care providers, Zhong said, should be aware of biases affecting their decisions, question their motives when deciding on resuscitation, and be alert to inconsistencies in their practice.

—John Curtis



TERRY DAGRADI (3)

**TOP** Medical student Natalie Spicyn discussed her poster on patients' reasons for refusing certain physicians in hospital settings.

**MIDDLE** Participants in Student Research Day filled the atrium of The Anlyan Center in May.

**BOTTOM** M.D./PH.D. student Craig Platt's paper was titled "Efficient endocytosis and presentation of antigens by mature dendritic cells."



TOMAS KALNINS, CHANCERY OF THE PRESIDENT OF LATVIA

**Valdis Zatlers, who used his studies as an excuse to avoid joining the Communist Party in Soviet-era Latvia, is now the country's president.**

## From the operating room to Parliament

**After a youth spent dodging the Communist party, an orthopaedic surgeon is now president of Latvia.**

As a young man in Latvia, Valdis Zatlers, M.D., FW '91, had a polite objection to invitations to join the Communist Party. "I always said 'I'm not smart enough—I have to learn and study,'" he said. "It was an excuse they always accepted."

Today, Latvia is a democracy and Zatlers is its chief of state. An orthopaedic surgeon who was a visiting fellow at Yale in 1990, he became president in 2007 and is only its third leader since the collapse of the Soviet Union.

After a childhood spent reading deeply in history and geography, playing drums in a rock band, and dodging the Communist Party, Zatlers became a physician. He chose orthopaedics for its satisfyingly concrete results. In 1986 he was dispatched to Chernobyl as a medical officer with the Soviet Army two weeks after the nuclear plant catastrophe there. Nobody, he said, had any idea what to do, since planning had been for nuclear bombings rather than power plant accidents. As his medical career progressed, Zatlers became active in the Popular Front of Latvia, a movement dedicated to regaining independence for the country, which was then still part of the Soviet Union.

It was then, in the era of glasnost, that his work came to the attention of Kristaps Keggi, M.D. '59, HS '63, a professor of orthopaedics at Yale. A "lifelong anti-Communist," Keggi emigrated to the United States from Latvia at the age

of 15. He was persuaded to return for a visit behind the Iron Curtain when his daughter was invited to row in the first Goodwill Games, which were held in Moscow in 1986. There he began to talk with Soviet orthopaedists, whose resources he recalled as "very, very primitive," and soon found himself operating on KGB officials who needed joint replacements. In 1988, he started the Keggi Orthopaedic Foundation (KOF) to allow for formal academic exchanges between the United States and the USSR. Since its founding, the foundation has sponsored some 300 surgeons from the former Soviet Union and Vietnam, who train for several weeks at Waterbury and Yale-New Haven hospitals.

Keggi says that he first heard of Zatlers when several Latvian nurses asked him, "When are you going to start taking somebody who is not associated with the Communist elite?" Zatlers became a KOF fellow in 1990 and studied techniques in joint-replacement at Yale, as well as at Massachusetts General Hospital with Latvian-American orthopaedist Bertram Zarins, M.D., and at the University of Iowa. Keggi, who has kept in touch with Zatlers, calls him "very bright" and a highly qualified surgeon. "He was the first of the Latvians we brought over who had that [activist] history," said Keggi. "All the others had been good little boys, Communist youths."

Soon after Zatlers' return in 1991, Latvia regained its independence. The head of Riga's State Hospital of Traumatology and Orthopaedics, a prominent Communist, stepped down shortly thereafter, and Zatlers replaced him. Zatlers continued to build a successful career, taking on medical leadership positions and lecturing internationally. He was nominated for president in 2007 by the ruling government coalition, and members of Parliament voted him in by a comfortable majority.

"When Zatlers was appointed, people were somewhat worried about him, because here's this orthopaedic surgeon



all of a sudden president of Latvia. But he's done a great job," said Keggi. "He always has had a good understanding of world politics and history."

Zatlers has made political stability, the rule of law, and employment his priorities. He has urged young people to participate in politics and warned against the nostalgic yearning for a political "boss" to lead the country, which underwent a severe economic contraction during the recent global downturn.

Why the jump from orthopaedics to politics? After his success in medicine, Zatlers explained, he felt ready for a new challenge. "Not many people are asked to run for president. ... so I took the chance, I took the challenge, I took the risks. And as a surgeon, I have been used to risks all my life." Comfort with risk taking is just one way Zatlers said his medical background was good preparation for politics; he also credited years of working long hours and keeping confidences. "Most [important] of all is the ethics of a physician," he said. "It's the best training available."

Zatlers said that his visit to Yale deeply influenced the rest of his life. "Every day, every hour I spent at Yale was a total change of my mindset, because in those post-Cold War years, the two worlds were totally different. It not only changed my physician skills; it really changed me as a man." His favorite spot on campus? Harvey Cushing's office in the medical library.

Zatlers returned to Yale last fall during the UN Summit on Climate Change and addressed students in Luce Hall about international affairs. Though he said the visit was a "great experience," both he and Keggi regret that Zatlers did not have time to address the orthopaedics department. "My lecture about structural bone grafting and difficult cases is still available to the students," said Zatlers. "You have always to leave something for next time."

—*Jenny Blair, M.D. '04*

## **A cardiologist follows a career in corporate medicine, keeping workers healthy**

When Clarion E. Johnson, M.D. '76, began his career as associate medical director at what was then Mobil Corporation in 1988, he was looking for a 9-to-5 job. Today, as ExxonMobil's global medical director of the Medicine and Occupational Health Department, he is seldom at home for more than three months at a time.

Although Johnson, a cardiologist, had never considered a career in corporate medicine, "it was a family decision," he said of his choice. His wife, Heather Mitchell Johnson, M.D. '79, was working in an ob/gyn practice she really enjoyed. "We knew she would be on call a lot. We had two small children, and it was important to us to have one parent at home. I moonlighted as a cardiologist for a local HMO when my wife was not on call, and I immersed myself in enjoying my children's lives."

In 1998, when his children were in their teens, Johnson became Mobil's global medical director. After Mobil and Exxon merged, he assumed the global position responsible for the health care of 80,000 employees and affiliate employees worldwide. He directs the company's traditional health care services, including environmental noise, chemical exposure, emergency response support, industrial hygiene, health promotion services, and travel medicine. "A very important facet of my job is to give a real-time assessment of the status of the health infrastructure of a country or location where our employees are working and residing," explained Johnson.

Johnson and his multidisciplinary team conduct health care briefings with employees who will be working in challenging environments outside the United States, visit sites in 201 countries, confer with the world's health ministers and practitioners, make rounds in hospitals around the globe, and evaluate employees' health and well-being once they return to the United States. Johnson's goal is to communicate a clear and consistent assessment of health care conditions, whether he is meeting with local clinicians, government officials, employees, or their families. "My assessments enable me to determine what the trigger is to evacuate personnel from any location," he said.

Johnson also assisted with the design and review of a 2008 study comparing ExxonMobil employees' death records to those of the general population. The results suggest that the company's U.S. employees are healthier than the population at large. Their rates of death from heart disease and accidents are more than 30 percent lower. This is due in part to the healthy worker effect—people who have jobs are usually healthier than the general population. "Exxon's commitment to safety and health also is a contributing factor," said Johnson. "The focus of this study, which is the largest of its kind for the petroleum industry, is on educating the employee population to encourage a sense of control over health."

Johnson attributes his emphasis on education to his mother, a schoolteacher, and his father, who owned a shoe repair shop in Queens. In the 1950s, his mother, concerned about the quality of public schools in Brooklyn, converted to Catholicism so he could

As global medical director of ExxonMobil, Clarion Johnson is responsible for the health of 80,000 employees around the world.



CHARLIE JABLOW

attend a parochial school in the neighborhood. She often took him on tours of Manhattan, specifically to areas where there were racial barriers. “My mother wanted me to understand that most of life’s barriers are manmade and can be overcome,” remembered Johnson. “She could have tea with the Queen of England and feel very comfortable,” he proudly noted.

After high school, Johnson headed to Sarah Lawrence College with the help of scholarships and several work-study programs. “I manned the college’s main reception desk for 12-hour shifts on weekend nights, ran the campus linen service two nights a week, and served as student body president my senior year,” said Johnson, who joined the college’s board of directors two years ago.

The liberal arts curriculum at Sarah Lawrence influenced Johnson’s decision to attend Yale School of Medicine. “I wanted to attend a medical school

where I felt there were more students with a liberal arts background like myself,” Johnson said. “I saw more students with B.A. degrees listed at the back of the Yale School of Medicine catalog than at other medical schools.”

Johnson completed his internal medicine residency at Harlem Hospital Center in New York City and a cardiology fellowship at Walter Reed Army Medical Center. Following a military medical science fellowship at Walter Reed Army Institute of Research, he spent two years as a postdoctoral student doing microwave research. He was the director of the Critical Care Support Laboratory and assistant professor at Howard University School of Medicine, and also served as the senior medical officer and researcher at Evaluation Research Corporation International, a contracting agency in Fairfax, Va., that provides scientists and technical support for government projects. For close to three decades, Johnson has been on staff at Fairfax Hospital and an assistant professor at the Uniformed Services University of the Health Sciences in Bethesda, Md. Johnson also sits on the Milbank Memorial Fund board of directors.

—Catherine Dinsmore

### Familiar Faces

**Do you have a colleague who is making a difference in medicine or has followed an unusual path since leaving Yale? We’d like to hear about alumni of the School of Medicine; Physician Associate Program; and the medical school’s doctoral, fellowship, and residency programs. Drop us a line at [ymm@yale.edu](mailto:ymm@yale.edu) or write to Faces, Yale Medicine, 300 George Street, Suite 773, New Haven, CT 06511.**

### 2010-2011

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**Valerie Stone**



**Jiyon Lee**



**Ryan Kaple and Anne Dockery**



**Alyssa Letourneau and Matthew Amdur**



**Amy Nuernberg and Mark Ahasic**

## 1950s

**Gene W. Spector, M.D. '59**, is practicing radiology full time. He built and helps run five imaging centers in St. Louis and is the director of imaging services at the Shriners Hospital for Children in St. Louis.

## 1960s

**Augustus A. White III, M.D., PH.D., HS '66**, was honored with the fifth annual William W. Tipton Jr., M.D., Leadership Award for his work as an educator, mentor, and champion of diversity initiatives. The award, which includes a \$5,000 honorarium, was presented at the American Academy of Orthopaedic Surgeons annual meeting in New Orleans in March. White is the Ellen and Melvin Gordon Distinguished Professor of Medical Education and professor of orthopaedic surgery at Harvard Medical School.

## 1980s

**David Fassler, M.D. '82**, was elected treasurer of the American Psychiatric Association in February. Fassler is a child and adolescent psychiatrist practicing in Burlington, Vt. He is also a clinical professor of psychiatry at the University of Vermont College of Medicine and director of advocacy and public policy at the Vermont Center for Children, Youth, and Families.

**Guy L. Fish, M.D. '85, M.B.A. '94**, wrote to say that his work as a venture capitalist and consultant to health care startups continues well, despite the state of the economy. His eldest child, Nicole, left Yale after two years to pursue dance in New York,

where she trained with Alvin Ailey and where she is director of a boutique dancewear/pointe-shoe shop. His son, James, graduated from Harvard in May. His youngest child, Carina, finished her freshman year at Harvard in engineering. His wife, Kim, has started a business as a career coach and college admissions consultant. Fish concluded with an appreciation of his education at the School of Medicine.

“Not a single day goes by that I am not using fundamentals of immunology, biochem, physiology, and other building blocks to decipher the value proposition of what is being proffered. These are uses of medical knowledge I never imagined. I thank God the Yale system does such a great job educating young doctors for the future.”

**Valerie E. Stone, M.D. '84, M.P.H.**, has been elected to the Board of Regents of the American College of Physicians (ACP), the national organization of internists. Her two-year term began during Internal Medicine 2010, the ACP annual scientific meeting held in Toronto in April. A resident of Quincy, Mass., Stone is the director of the Primary Care Residency Program and associate chief of the General Medicine Unit of Massachusetts General Hospital. She is also an associate professor of medicine at Harvard Medical School.

## 1990s

**Jiyon Lee, M.D. '96**, assistant professor of radiology, NYU School of Medicine and the NYU Cancer Institute, Breast Imaging Center, was featured in the May issue of the women's magazine *MORE*, on the Beauty Opener page. Lee

added that she recently caught up with old friends **David M. Lee, M.D. '96**, who's in emergency medicine in San Diego, and **Srinivas G. Rao, M.D. '90, PH.D. '90**, chief scientific officer at Cypress Bioscience in San Diego.

## 2000s

**Elizabeth K. Arleo, M.D. '04**, recently completed a yearlong fellowship in women's imaging at New York-Presbyterian Hospital/Weill Cornell Medical Center, where she plans to stay as an attending. She and her husband, Joshua W. Thompson, J.D., have a daughter, Sophia Arleo Thompson, who turned 2 in May. Arleo and classmate **Reena Rupani, M.D. '04**, recently brought their children together for a play date in Central Park. Rupani has been practicing dermatology for the past two years as an assistant professor at SUNY Downstate Medical Center, as chief of service at Woodhull Hospital in Brooklyn, and in private practice in New York City. She lives in New York with her husband, Rishi Goyal, M.D., PH.D., and 21-month-old son Rai Gryffin Goyal.

**Ryan K. Kaple, M.D. '07**, and Ciara Anne Dockery, M.A., were married on February 13 in Cambridge, Mass. Kaple is a second-year resident in internal medicine at Massachusetts General Hospital. Dockery is studying for a PH.D. in clinical psychology at Fordham. She graduated cum laude from Harvard and received a master's degree in journalism from New York University.

**Alyssa R. Letourneau, M.D. '06**, was married on September 19, 2009, to Matthew B. Amdur in Waitsfield, Vt. Letourneau is

an infectious disease fellow at Massachusetts General Hospital in Boston, where she completed a residency in internal medicine and pediatrics. Amdur is a software engineer at VMware in Cambridge, Mass., where the couple resides. Guests at the wedding included **Jana Colton, M.D. '07**, who was a bridesmaid, **Erin Mahony, M.D. '05**, and **Ariel Frey, M.D. '05**.

**Amy M. Nuernberg, M.D. '00, HS '03, M.P.H.**, and **Mark A. Ahasic, M.B.A.**, were married on March 14 in Chicago. Nuernberg is a pulmonary and critical care physician completing a four-year fellowship at Massachusetts General Hospital. Her husband is a senior manager with Simat, Helliessen & Eichner, an aviation consultancy in Cambridge, Mass.

## 2010s

**Joshua I. Weiner, M.D. '10**, and Rachel K. Rosenstein were married in Springfield, N.J., on May 2. Weiner began a general surgery residency in June at New York-Presbyterian/Columbia University Medical Center. Rosenstein is a student in the Yale M.D./PH.D. program, where she is specializing in immunology.

**SEND ALUMNI NEWS TO** Claire M. Bessinger, *Yale Medicine*, 300 George Street, Suite 773, New Haven, CT 06511, or via e-mail to [claire.bessinger@yale.edu](mailto:claire.bessinger@yale.edu)

**VISIT US ON THE WEB** [yalemedicine.yale.edu](http://yalemedicine.yale.edu)

**Charles A. Bailey, M.D.**, HS '51, died on December 25 in Coronado, Calif. He was 93. Born in Rutherford, N.J., Bailey worked in drug research for Lederle Laboratories in New Jersey before entering medical school at Cornell University. His medical studies were interrupted by service in the U.S. Navy, where he did research in infectious diseases and contributed to reducing mortality from typhus. He was also a member of the research team studying the Rh factor, which led to the listing of blood types on soldiers' dog tags—invaluable information for combat medics. After his residency at Yale, Bailey practiced internal medicine and cardiology in Ridgewood, N.J., until his retirement in 1980.

**Diana S. Beardsley, M.D., Ph.D.**, FW '76, associate professor in the Section of Pediatric Hematology/Oncology, died on March 30 after a brief illness. She was 62. A member of the faculty since 1986, Beardsley built a nationally recognized program in coagulopathies and platelet disorders. She was one of the first scientists to apply modern techniques of immunobiology and molecular biology toward furthering the understanding of immune-mediated platelet destruction syndromes. Born in Curtiss, Wis., Beardsley received her bachelor's degree in chemistry from Valparaiso University in 1969, her Ph.D. in physical chemistry from Princeton in 1976, and her M.D. from Duke, also in 1976. She was a hematology research fellow at Yale in 1975–76 before interning in medicine at Children's Hospital in Boston, where she completed her residency. Her residency was followed by a three-year fellowship in pediatric hematology and oncology at Harvard Medical School, the Dana-Farber Cancer Institute, and Children's Hospital from 1978 to 1981.

**Albert H. Dolinsky, M.D.**, HS '54, died on February 13 of multiple illnesses in North Haven, Conn. He was 92. Born in Winsted, Conn., he became a captain in the Army Air Corps and was stationed in Hawaii when Pearl Harbor was attacked in December 1941. He received his medical degree from New York Medical College in 1951. Dolinsky maintained a private practice in internal medicine in New Haven for 30 years and was an attending physician at Yale-New Haven Hospital and the Hospital of St. Raphael.

**Ira W. Gabrielson, M.D.**, HS '53, M.P.H., died on January 18 in Williamsburg, Mass. He was 87. Gabrielson was chair of the department of community and preventive medicine at the Medical College of Pennsylvania (MCP) when he retired in 1989. He spent his career teaching in the Yale School of Public Health, the University of California at Berkeley, and MCP.

**Frank L. Golbranson, M.D.**, '47, died on January 10 in La Jolla, Calif. He was 88. Golbranson, an orthopaedic surgeon, entered medical school as a Navy cadet and served in the Naval Hospital in Oakland, Calif. After leaving the Navy, he became a clinical assistant professor at the University of California, San Diego, and chief of rehabilitation medicine at the VA in La Jolla. He was instrumental in improving recovery from leg amputation for soldiers returning from Korea and Vietnam, and his research helped improve the lives of patients with diabetes and bionic artificial limbs.

**Benjamin A. Johnson, M.D.**, '49, M.P.H., died of cancer on February 22 in Jacksonville, Fla. He was 87. Born in Jacksonville, Johnson served in the Armed Forces during the Korean conflict and was awarded a Bronze Star and the Air Medal. After training in pediatric allergy, he received a public health degree and served in local and state government.

**John W. Kreider, M.D.**, HS '64, died on January 29 of complications related to kidney failure in Palmyra, Penn. He was 72. Born in Moorestown, N.J., Kreider graduated from the University of Pennsylvania School of Medicine and served for more than 25 years as a professor of pathology and microbiology at the Penn State College of Medicine in Hershey, Penn. He was a founding member of the Jake Gittlen Cancer Research Institute and served as its director. He specialized in the study of human papilloma virus (HPV) and contributed to the development of Gardasil, an anti-HPV vaccine.

**Robert T. McSherry, M.D.**, '50, died on January 10 in Landrum, S.C., of heart failure. He was 90. McSherry had a long career in the Philadelphia area as an anesthesiologist. During World War II he was a Navy corpsman with the Marines and saw combat action on Guadalcanal and Bougainville islands.

**Robert F. Newton, M.D.**, '47, died on January 30 in Guilford, Conn. He was 87. Newton served in the U.S. Army and received an honorable discharge as a lieutenant colonel. He opened a pediatric practice in Hamden, Conn., in 1951, and served as director of public health for the town as well.

**Martin F. Randolph, M.D.**, died on March 3 in Danbury, Conn. He was 92. A prominent physician in Danbury for nearly 50 years, Randolph was a member of the clinical faculty at Yale from 1949 to 1965. Randolph graduated from Michigan State University in 1939 and from the University of Rochester's School of Medicine in 1943. He completed his residency in pediatrics at the University of Chicago in 1945. He interrupted

his medical education to volunteer as a captain in the United States Medical Corps from 1945 to 1946. One of the first pediatricians in Danbury's history, Randolph started his practice in 1948 and was active until 1997. While maintaining his practice, Randolph pursued his lifelong interest in medical research and writing. He was appointed associate professor of medicine by Yale University and served in that capacity for many years. He published 60 articles dealing with children's illnesses and is internationally acclaimed for his pioneering research on streptococcus.

**Joan Venes, M.D.**, FW '68, HS '72, the first woman accepted as a pediatric neurosurgeon at Yale, died on March 31 in Auburn, Calif. She was 74. Born in Brooklyn, N.Y., Venes originally intended to be a nurse. She worked as an emergency room nurse for several years after college before taking the courses that would prepare her for medical school. After receiving her medical degree from Downstate Medical Center of the State University of New York, Venes began a surgical internship at Yale, eventually becoming the school's first female neurosurgery resident following a postdoctoral fellowship in the laboratory of Dr. William Collins. In 1972 she completed her residency in neurological surgery and won the McNeil Award in Surgery. She joined the faculty and stayed at Yale until 1978, when she joined a private practice in Dallas. In 1990, she was named professor of surgery (neurosurgery) at the University of Michigan. In 1993 she retired due to health reasons and settled in California.

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**SEND OBITUARY NOTICES TO** Claire M. Bessinger, *Yale Medicine*, 300 George Street, Suite 773, New Haven, CT 06511, or via e-mail to [claire.bessinger@yale.edu](mailto:claire.bessinger@yale.edu)



## Acrylics, pastels, and skin disease

During four days in April, medical student Alexander Marzuka, a member of the Class of 2012, had on display four paintings that reflected his feelings about skin disease.

“I wanted to challenge the image that skin diseases are trivial and not important because they are often not life-threatening,” said Marzuka, who grew up in Caracas, Venezuela, before coming to the United States to attend the University of Texas. “They can have a profound impact on a person’s self-esteem, social life, and body image. I really wanted to understand what it was like to live with these diseases.”

The paintings, made on gessoed paper (paper coated with an acrylic calcium carbonate primer) with acrylic paints and pastels, depict psoriasis, melanoma, the autoimmune depigmentation disease vitiligo, and cutaneous T-cell lymphoma (CTCL). The paintings—a year in the making and funded by the Program for Humanities in Medicine—were on display in the Cushing/Whitney Medical Library. Marzuka researched the medical aspects of the paintings by reading the writings of a patient with psoriasis and meeting with survivors of melanoma and CTCL. He also consulted dermatology textbooks. “All the paintings show the psychosocial impact of the disease,” he said.

—John Curtis

