

E

University of Medicine & Dentistry of New Jersey

for Teaching

Garnering the

BIKE RIDE FOR GLOBAL HEALTH ANATOMY RECONFIGURED ALUMNI NEWS AND FEATURES



Message from the Dean

THE movement inherent in an academic setting propels all of us—faculty, students and staff—along each day, each week, each month until, believe it or not, another year has passed. One class of students reaches an incredible milestone while another prepares to begin the journey. I hope you'll enjoy reading about the Class of 2006 Convocation during which the renowned pediatric neurosurgeon Dr. Benjamin Carson addressed the class with a rather moving speech.

This issue of *Pulse* spotlights a number of our faculty who have moved their students in many ways, enough to garner the coveted Golden Apple Award for Excellence in Teaching. One has even implemented a novel method of teaching anatomy that has been documented to improve how students learn.



We've also profiled a selection of students whose dedication to humanism moved their fellow peers and professors to nominate them to the Gold Humanism Honor Society.

Our researchers are moving forward in many areas as well—we document some of their discoveries in brain repair, sepsis and tuberculosis in this issue.

And to play out the theme of motion quite literally, you'll also read about an NJMS student who rode his bicycle 3,700 miles across the country to raise money for and awareness of global health issues.

I trust you'll find this a "moving" issue of *Pulse* magazine. In Health,

Robert L. Johnson, MD, FAAP The Sharon and Joseph L. Muscarelle Endowed Dean (Interim)

pulse

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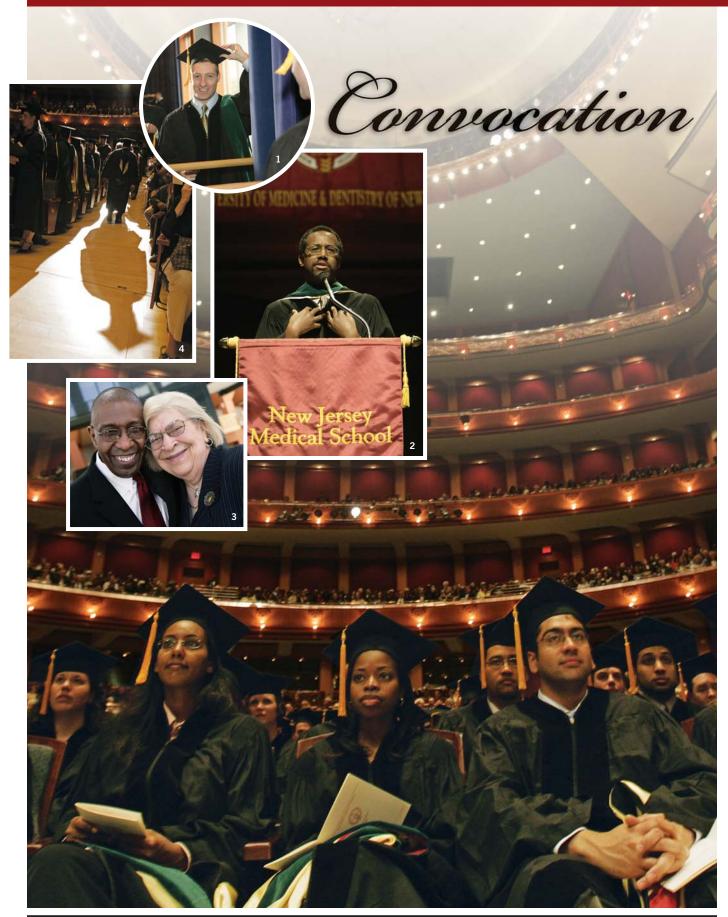
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NEW JERSEY MEDICAL SCHOOL'S 2006 Convocation, held at

the New Jersey Performing Arts Center in Newark on May 22,

proved a time of reflection, celebration and humor.

UMDNJ's Interim President Bruce Vladeck, PhD, congratulated the class of 2006 for setting a standard that will ensure success not only for the graduates but for the school and University as well. He remarked that the University would thrive because of the energy, commitment and talent of the people associated with it.

A number of those people—including students, faculty and community leaders—were honored during the ceremony with awards recognizing excellence in teaching, academic excellence, commitment to humanism, and service to others.

Benjamin Carson, MD, professor and director for pediatric neurosurgery at Johns Hopkins Medical Institutions, then delivered the keynote address, reflecting on the early challenges of his life, the joys of a humanistic approach to medicine, and the power of expectations.

"When I was in the fifth grade, I thought I was stupid, so I conducted

- 1. Students don caps and gowns.
- 2. Dr. Benjamin Carson delivers the keynote address.
- 3. Dean Johnson congratulates Elena Perez on receiving the Distinguished Citizen Award.
- 4. Recessing students begin the next phase of their journey.

SECTION COMPILED BY MELISSA CAMPBELL

myself like a stupid person and achieved like a stupid person. When I was in the seventh grade, I thought I was smart: I conducted myself like a smart person and achieved like a smart person. What does that say about expectations and about human potential? This is what we must learn to develop."

He then urged the graduates to fully develop their talents to become invaluable to the people around them, but to not abuse their sphere of influence. "We can encourage or discourage. Giving hope is a tremendous advantage, not only in healing the body, but in healing the spirit." During his address, Guy Manetti, Student Council President, elicited a chuckle from the crowd as he recalled his first test in medical school. It came in the form of a pop quiz from a fellow student. Question: What is the "coolest" joint in the body? Answer: The "hip" joint, of course.

But Manetti also passed on more serious words of wisdom that his father left with him: Be proud of your achievements, but also remember that life is not just a matter of milestones, but of moments.

"Now that we have reached this important achievement of graduating from medical school, it will be tempting for us to focus on our next milestone," said Manetti. "However, it is the moments that we share with those around us that will continue to mold us as physicians. Enjoy the moments."

Lisa Pompeo, MD, assistant professor, Department of Obstetrics, Gynecology and Women's Health, then led the students in reciting the Hippocratic Oath before receiving their degrees. As the newest class of doctors exited the hall, buoyed with hope, excitement and celebration, it was clear they were truly living in the moment.



INSIDE INFORMATION



A SPATE OF HEROIN Overdoses in

Camden, NJ, led health officials at the New Jersey Poison Information and Education System

(NJPIES)—located at NJMS—to alert the CDC to an unusually strong form of heroin containing fentanyl, a powerful painkiller many times stronger than morphine. The CDC, in turn, sent out a national alert. NJPIES is collecting and analyzing information from emergency room personnel, which they hope will provide police with helpful information that may prevent additional overdoses.

TO REFLECT a growing international effort to eradicate TB, the National Tuberculosis Center at UMDNJ-New Jersey Medical School has become the Global Tuberculosis Institute. Last year, it received a \$7.5 million federal grant over five years to fund one of four Regional Training and Medical Consultation Centers in the U.S.

Seeds of Change

PERHAPS the most critical aspect of medical science research is translating findings so they are widely available to those who can benefit. Making the leap from bench to bedside involves many factors, not the least of which is an interested investor and financial backing. A new venture capital company established by the Foundation of UMDNJ has been created to fill those needs for researchers at UMDNJ. The Foundation Venture Capital Group, LLC, will invest \$5 million over the next five years to fund early stage research and development companies that have the potential to develop technologies that will change the future of healthcare.

The group will collaborate with the Office of Patents and Licensing at UMDNJ to

identify the most promising research and provide greater support and opportunities for newly formed start-up companies. The goal of the fund is to develop the fledgling companies so that they are more attractive to larger investors.

James M. Golubieski, president of Foundation Venture Capital Group, LLC, says this forward-thinking concept can prove transformational for the Foundation of UMDNJ, for researchers at the University by funding projects that might not ordinarily receive support, and for patients who will be able to take advantage of advances resulting from this effort.

NJMS Autism Center Benefit

RAISING money for autism couldn't have tasted or sounded any better. Eric Asimov, chief wine critic for *The New York Times*, and Steven Sacco, noted composer, along with the internationally renowned American Brass Quintet, hosted a wine tasting and recital on April 10 to benefit The Autism Center of New Jersey Medical School at UMDNJ. More than 115 people attended, helping to raise \$25,000.

The event, titled "In Tune with Autism," took place at Montclair State University's Alexander Kasser Theater and marked the world premiere of Sacco's latest composition.

Guests enjoyed tasting eight "terrific under twenty (dollars)" wines from around the world, particularly a 2004 Greek white, Boutari Moschofilero. The recital featured a range of pieces including a set of 16th century Venetian works, a selection of 19th century American band music and two Sacco compositions. One piece was inspired by the composer's son and his experience with autism spectrum disorder.

The event tied into an innovative program developed by The Autism Center of New Jersey Medical School, and funded by The Daniel Jordan Fiddle Foundation, called "Mostly Music," which offers parents and their children with autism a night of dinner and musical entertainment in a familyfriendly and supportive atmosphere.



The Autism Center of New Jersey Medical School and Montclair State University are collaborators in the New Jersey Art Health Initiative, a project that facilitates, documents and demon-

strates the relationship between the arts and health.

This collaboration aims to raise awareness of the positive effects of the arts on the health of both individuals and communities from prevention through treatment. The goal is to develop programs and opportunities for individuals with autism and their families to participate in the arts.



A Match Work Quilt

AFTER learning where they would spend the next phase of their medical education, students at NJMS placed tiny toothpick flags on a map of the U.S., creating a "Match Work" quilt pattern across the country. Residencies for the 156 graduates began this summer.

Medical students across the country learned their fate on Match Day, March 16, as white envelopes detailing their assignments were handed out at the prescribed hour of noon. The match rate at NJMS was 99 percent this year, considerably higher than the national rate of 93 percent.

About half of the NJMS grads are pursuing some type of primary care training in internal medicine, family practice or pediatrics. Other popular specialties include emergency medicine, obstetrics/gynecology, surgery and radiology. About one third of the students will remain in New Jersey and 26 of them will pursue residencies at UMDNJ-University Hospital.

Guy Manetti, student council presi-



Claudia Mosquera learns that she has matched to the obstetrics and gynecology program at UMDNJ-University Hospital.

dent, opted for an early match program, which did not diminish his enjoyment of Match Day. He and several other early matchers set up beach chairs to reflect their relaxed state of mind. One nice surprise for Manetti, who was accepted into Yale-New Haven Medical Center's urology program, was that seven of his classmates will join him there.

Cultural Competency Summit

BOUT 50 UMDNJ physicians $oldsymbol{\Lambda}$ attended New Jersey's first credit-bearing continuing education cultural competency conference on April 24 in Princeton. The day-long session entitled "Caring for New Jersey's Multicultural Population: A Cultural Competency Summit" was organized by Maria Soto-Greene, MD, vice dean, NJMS, and Catherine Bolder, UMDNJ associate vice president, AA/EEO. Participants satisfied the mandate of legislation passed in 2005 that requires the completion of cultural competency training as a condition of licensure for medical professionals. The law aims to end race- and gender-based disparities in the provision of healthcare.

The conference was funded by The Bildner Family Foundation– New Jersey Campus Diversity Initiative, the UMDNJ Cultural Competency Project, the UMDNJ Office of Multicultural Affairs and the NJMS Hispanic Center of Excellence.



INSIDE INFORMATION

A SYMPOSIUM on the Immunology of Infectious Diseases on April

11 and 12 brought together researchers from the U.S. and Canada to discuss recent discoveries regarding the regulation and function of the immune response that

may lead to new vaccines and immunotherapies. William C. Gause, PhD, senior associate dean for research and a noted expert in the field, and Padmini Salgame, PhD, NJMS professor of medicine, were the program directors.

RESEARCHERS AT NJMS have been awarded a five-year, \$8.1 million grant from the NIH's National Institute of General Medical Sciences to investigate gender differences in response to injury and sepsis. The focus of their research is the pathogenesis of multiple organ failure, the most common cause of death in the intensive care unit, and why men are more likely to succumb to multiple organ failure. The principal investigator is Edwin A. Deitch, MD, professor and chair, Department of Surgery, highly regarded for his work in abdominal, trauma, critical care and bloodless surgery.

A RECENT STUDY led by Steve Levison, PhD, professor, Department of Neurosciences, indicates that the brain has a broader capacity for repair than previously thought. The team has identified two stem cell receptors—EGFR and Notch1,gp-130—that are important to brain regeneration following injury. If the brain's natural response could be enhanced, then these findings may eventually be applicable to conditions such as cerebral palsy, multiple sclero-

sis, stroke and traumatic brain injury. Study results were published in *The Journal of Neuroscience* in April.



NJ Nets **Team Up** to Fight Asthma

OUMANA Kidd and Ellen Carter, wives of Nets basketball stars Jason and Vince, respectively, have initiated a full court press to help raise money for the Asthma Center of Excellence at NJMS. The centerpiece of their fundraising effort is a t-shirt with the images of Vince and Jason portrayed as "Fire and Ice" for their well-known playing styles. The shirts debuted at the Continental Airlines Arena during the NBA playoffs in April and proceeds will benefit the asthma program at the school. Sales of the shirts will continue into next season.

According to Deborah Johnson, MD, FAAP, a pediatrician and the associate dean for clinical enterprise at NJMS, the dream of making a difference in the care of children with asthma is now a reality thanks to the combined efforts and commitment of the Kidds, the Carters and the Nets. Asthma represents a serious health concern for children in New Jersey. A staggering 13 percent of children under the age of 18 are affected by asthma, according to the New Jersey Department of Health and Senior Services, with the majority of these children concentrated in urban areas.

Nationally, asthma accounts for more than 14.7 million missed school days per year according to the Centers for Disease Control.

This team effort will play an important role in improving the day to day lives of kids and their families—a slam dunk for everyone affected by asthma. ●

Representatives from the Asthma Center of Excellence at NJMS and the Foundation of UMDNJ accept a check from Joumana Kidd (center) during a Nets game.



NEW & NOTABLE

Med Students Embrace HUMANISM



"Wherever the art of medicine is loved, there is also **a love of humanity.**"

WERSTANDING these words of medicine's founding father is not enough for students at NJMS, where acting on their understanding is critical to becoming compassionate physicians. This spring 34 students were recognized for their humanistic actions by being inducted into the Gold Humanism Honor Society. Sponsored by the Arnold P. Gold Foundation, the organi-

zation honors medical students, residents and physician-teachers who demonstrate excellence in clinical care, leadership, compassion, scientific achievement and dedication to service.

Fourth-year students are nominated by their peers, faculty and residents, and are evaluated on their interactions with patients, faculty, staff and fellow students, as well their academic and clinical experiences.

Two faculty members were also inducted—Lillian Pliner, MD, Department of Medicine, Division of Hematology/Oncology, and Lisa Pompeo, MD, Department of Obstetrics, Gynecology and Women's Health. The evening's keynote address was provided by Pliner, who said: "When I first became a physician, I thought my biggest challenge would be keeping my skills and knowledge base up to date. Now I have come to find the real challenge is working humanistically within systems that are often at odds with patients' best interests."

When Pompeo accepted her award, she told students that even though she is a teacher, she learns from her students, and that she is a better teacher, physician and person because of her interactions with students.

Students conducted a service project entitled "Voices of University Hospital: Spending Time in a Patient's Shoes," in which they interviewed patients about what they believe makes a good doctor. The new NJMS members join colleagues from 49 other medical schools who have been inducted into the Gold Humanism Honor Society since it was founded in 2001. A few profiles follow. —**MELISSA CAMPBELL**

NEW & NOTABLE

Beauty is Not Only Skin Deep RICHARD HUGGINS

I N Ethiopia, leprosy sufferers who were once socially isolated, stigmatized and feared, are now treated and

cured with an aggressive multidrug regimen. In Holland, individuals inflicted with vitiligo, who once endured constant gawking and embarrassment, now have their condition corrected through laser surgery and skin grafting. Not many medical students

know as much about these types of skin diseases as Richard Huggins, MD. Through his externships in Africa at the All Africa Leprosy Center in Addis Ababa, Ethiopia, and in Holland at the National Center for Blistering Disorders and the Netherlands Institute for Pigment Disorders, Huggins witnessed first-hand the psychological effects of these conditions and how to treat them.

The Johns Hopkins University graduate realized in his junior year of college that he enjoys working with people and helping them. "I believe my personality allows me to see things from another person's perspective, both professionally and privately," he explains. "I always try to put myself in my patients' shoes to better understand their problems." His compassion and understanding garnered him a spot in the Gold Humanism Honor Society. Huggins mentored several teens in Newark, coaching them on how to better their lives. One particular student from Malcolm X Elementary School is near to Huggins' heart. After three years of coaching him, the fifth grader was recently promoted out of

special needs classes and is doing very well. "His dedication to medical school and to the community personifies the type of physician he will become," explains Lonnie Wright, director of undergraduate and pre-matriculation programs at NJMS, and the person

> Huggins credits with helping him choose his career path.

Huggins became interested in dermatology during medical school—particularly pigment disorders like vitiligo, tuberous sclerosis and scleroderma. "Skin

RICHARD HUGGINS

issues are chronic and affect your body as well as your self esteem," he explains. "This specialty allows me to counsel patients as well as treat them, which is very rewarding."

His externships have allowed Huggins to learn about other cultures and the similarities and differences of treating patients in other countries. "It amazed me how much time is spent counseling

patients in Holland," he explains. "Physicians in the dermatology clinic take the time to talk to patients and help them through the emotional aspects of dealing with a disfiguring skin disorder." His work was partially funded through an

American Academy of Dermatology minority medical student mentor scholarship, which offered Huggins the opportunity to be mentored by a foreign dermatologist. He started his internship this summer at the State University of New York–Buffalo.

Of Music and Medicine MARCIA KLEIN-PATEL

ARCIA Klein-Patel, MD, wasn't Supposed to become a doctor. As an accomplished concert pianist, she played competitively before even entering high school. It all started with an old piano and several piano books that her great aunt gave her when she was 2 years old. Since her aunt was a piano teacher, Klein-Patel received lessons and by age 3, could read music and play simple songs. Her talent flourished and she started competing while in grammar school under the direction of a professional piano teacher/coach. It wasn't until her mentor suddenly passed away that she "hung up" her keys. "I just couldn't work with anyone else," she explains.

Prior to entering Syracuse University, she slowly started playing again and was

accepted with a

double major—

biology and music.

"It was one of the

few schools that

would admit me

with such a varied

double major," she

explains. The work-

load for both disci-

plines was so sub-

stantial that after

several semesters,

she was forced to



MARCIA KLEIN-PATEL

drop one. She chose to follow through with biology. "I loved biology just as much as music and it was very difficult for me to accept that I could not pursue



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both. Eventually science won out."

When she looks back on her medical school experience, she says she chose New Jersey Medical School because "I fit here. After my interview at NJMS and I knew I was accepted, I cancelled the remaining interviews. I just knew this was the right choice." Klein-Patel was offered a scholarship to attend the MD/PhD program and was one of three students who graduated with this dual degree this year. She completed her PhD in 2004. Her research on the effects of air pollutant particles on airway host defense was funded by the Environmental Protection Agency.

During her third year at NJMS, Klein-Patel chose to enter obstetrics since she thoroughly enjoyed her obstetrics clinical rotation. She decided that if she liked her labor and delivery rotation just as much, then it definitely was the right specialty for her.

Fast forward to the present. Klein-Patel started her residency in obstetrics and gynecology at Magee-Women's Hospital of the University of Pittsburgh Medical Center. She chose Magee because it is one of six national centers of excellence in women's health and also offers her the opportunity to pursue research interests at the Magee Women's Research Institute. Her current research is focused on subclinical infection in pregnancy. It's a far cry from air pollution but she rationalizes that "they are both mucosal systems, therefore similar."

This Resident Comes Full Circle CLAUDIA MOSQUERA

HO would you choose to have by your side during a medical emergency? When asked this very question, the majority of faculty, residents

and fourth year medical students from New Jersey Medical School chose Claudia Mosquera, MD, the extremely dedicated and energetic member of the class of '06.

Four years ago, as she donned her white lab coat for the first time during the annual White

Coat Ceremony, the excited and proud medical student knew that no matter how long and difficult medical school might be, it would all be worth it. She was right. In her fourth year, Mosquera was inducted into the

Gold Humanism Honor Society for her dedication and compassion for patients.

Medical school was part of Mosquera's "big plan" since she was 14 years old. As a high school student, she attended the Hispanic Center of Excellence Summer Youth Program at NJMS. A family friend, Maria Soto-Greene, MD, vice dean of NIMS and director of the Hispanic Center of Excellence, led this program. She recalls Mosquera's participation: "I am happy to see Claudia evolve from a teenager to a wonderful young woman who understands what it is to serve others." Now, as Mosquera begins her residency in obstetrics and gynecology at UMDNJ-University Hospital, Soto-Greene can call her a colleague.

Prior to entering NJMS, Mosquera launched her pre-doctoral career at Brown University, where she received a BA in biology. She chose obstetrics and gynecology because the field lends itself to all areas of primary care, including surgery and women's health. Mosquera sees this evolving speciality as a chal-

lenge for future physicians due to rising insurance and healthcare costs but believes that patients will come to appreciate this field even more in the future. "Patients rely heavily on their obstetrician-gynecologists to coordinate their primary care needs, which is creat-

ing a niche for this specialty in the primary care field," she explains. "Many women only go to their Ob/Gyn." True to her humanistic side, Mosquera feels that obstetrics and gynecology also offers her the ability to form long-lasting relationships with her

CLAUDIA MOSQUERA

patients and provide continuity of care, an option that is not as strongly present in some other specialties.

When asked to describe her most vivid memory of medical school, Mosquera recalls her first night on-call during her Ob/Gyn clinical rotation: "A 30-year-old woman in her third trimester of pregnancy was brought into labor and delivery by EMS. Before I knew it, she was rushed into the operating room. I watched as the obstetricians delivered the baby and the pediatricians tried to resuscitate him. Unfortunately the baby died. I cannot explain how much my heart hurt for the mother as she received the terrible news. It was an experience that I will never forget."

Mosquera feels that her training at NJMS could not have been better. "Given University Hospital's designation as a Level 1 Trauma Center, and my exposure to a large variety of complex clinical scenarios, I could not be more prepared to care for patients than I am right now," she explains.



NEW & NOTABLE

The Art of Listening INDRONEIL MUKERJI

VITH a history of counseling third-world orphans, college freshmen and even classical musicians, Indroneil Mukerji, MD, can't imagine anything more rewarding than helping patients discover their inner strength to persevere during a crisis. This calling prompted him to pursue a career in psychiatry and he started his residency this summer at Long Island Jewish Medical Center. His four years will encompass inpatient and outpatient psychiatry, neurology, as well as general medicine work. "I excel at listening with empathy," he explains. "During medical school my most satisfying clinical encounters have been the ones where I often unknowingly played the role of psychiatrist."

One of those most rewarding experiences involved Mukerji counseling a 72year-old gentleman with advanced-stage gastric adenocarcinoma. "Although he knew that his body was failing, he exuded an almost tangible passion for life," Mukerji recalls. "As I listened to him talk about his fears of pain, death and of

becoming a burden to his family, I realized that although I could not save him, he felt better discussing his issues with me."

In addition to the rewards of counseling others, Mukerji was drawn to academic psychiatry as he enjoys research and teaching. He feels fortunate to have been guided by

Pranela Rameshwar, PhD, associate professor of medicine at NJMS. He worked in her lab for three years as a research fellow and his group's work on neuroblastoma, a childhood cancer, was published in the *Journal of Neuro-Oncology* last year.

Mukerji's eclectic list of personal accomplishments includes: traveling abroad to Honduras, where he worked in an orphanage; learn-

ing to play the violin in the second

grandfather; and ballroom dancing,

which he is still perfecting.

grade, thanks to the prompting of his

A Cut Above

DIEGO REINO

IEGO Reino, MD, is looking for-

ward to testing his surgical abili-

ties. The extremely personable and very

graduate began his surgical residency at

summer. Though his five years of resi-

UMDNJ-University Hospital (UH) this

dedicated New Jersey Medical School



Involved in many activities and student groups such as the Student National Medical Association, Boricua Latino Hispanic Organization and the Three Doctors Foundation, he volunteered at health screenings and other community events

to promote health awareness for minority groups in the Newark area.

Reino credits his mentor—David H. Livingston, MD, the Wesley J. Howe Professor and chief of trauma surgery at NJMS—for teaching him how to be an accomplished surgeon and for "leading by example." As a first year student, Reino worked with Livingston on his research on the impact of bone healing in trauma surgery. The experience helped shape his decision to choose trauma surgery as his niche. University Hospital was also the perfect match for Reino due to its Level 1 Trauma Center status, as well as the vast number of critical care cases and diverse population.

"As a physician, it is important to provide care in an environment that fosters respect and dignity for the patient," Reino says. "As Hippocrates states: "Wherever the art of medicine is loved, there is also a love of humanity.""

To Follow in a Family's Footsteps SARITA SONALKAR

S ARITA Sonalkar, MD, has medicine in her blood. Her mother, aunt and three of her grandmother's sisters were physicians in Bombay. One of her greataunts even started a women's clinic that has operated there for more than 30 years. Sonalkar spent six months prior



INDRONEIL MUKERJI

empathy and respect for diversity, among other attributes. Reino understands the importance of these principles and worked hard to meet them.

dency at UH have just begun, Reino hit the ground running with the same focus and dedication that he applied to his four years of medical school.

> Gold Humanism Honor Society inductees are chosen for their ability to show compassion,

to starting medical school working at the clinic. Naturally, she chose to pursue a medical career. "My experience at my great-aunt's clinic sparked my interest in women's health," she explains. "Since the center provided general medical and family planning services for women, I was able to experience medicine first hand." The Penn State graduate was initially interested in marine biology but switched to biology halfway through school. It was her thorough enjoyment of science and her experience in Bombay that tipped the scales toward medicine.

While at New Jersey Medical School, Sonalkar was involved in several organizations including Medical Students for Choice, a group with more than 100 chapters at medical schools nationwide. The organization aims to include the discussion of comprehensive reproductive healthcare, such as contraception and abortion, in the standard medical education

curriculum. Sonalkar feels that her expe-

rience with the organization "truly fueled

my passion for complete reproductive

Her participation in the Student

healthcare for women."



Family Health Care Center, which provides free healthcare to patients, was also a rewarding experience. Sonalkar explains that the program challenges students to learn about clinical medicine much earlier than they might have in

SARITA SONALKAR

another medical school. "Our involvement in the health center taught us how to treat and counsel patients and gave us the opportunity as third and fourth year students to mentor underclassmen. It was truly a hands-on experience."

Her most memorable point of medical school was her third year clerkship in obstetrics and gynecology. "I loved the fast pace of the specialty, the combination of primary care and surgery and the connections that I made with women during pregnancy, birth and menopause—important emotional times of their lives."

Sonalkar understands that a competent physician accommodates different cultures, family values and traditions. Her goal is to work with patients and families to develop management plans that take into account these diverse lifestyles. "For example, if my patient is not adhering to her medication schedule, I want to know why and we can try to come up with an alternate plan to solve the problem together," she explains.

Prior to starting her obstetrics and gynecology residency at UCLA this summer, Sonalkar traveled to Ecuador and Peru. As an avid lover of the outdoors, she enjoys camping, hiking and travel. A family planning fellowship and/or a master's in public health are next on her long "to do" list. – JILL SPOTZ

Happy Anniversary

THE Student Family Health Care Center is gearing up for its 40th anniversary during the 2007–2008 academic year. Established in the fall of 1967 in the aftermath of the Newark race riots, the student-run center provides health services for area residents who are uninsured or underinsured.

Appointments are available on Tuesday and Thursday evenings. On average, six patients are seen per night. A team of three to five students interacts with each patient with an upperclassman mentoring the first- and second-year students as they take histories and perform a physical exam. Thirdand fourth-year students, with their broader knowledge base, develop a treatment plan for the patient. An attending physician also meets with the patient and then reviews the team's plan. The program provides a great opportunity for student learning while simultaneously providing patient care.

There is no cost to the patient for the visit. If additional tests are needed, patients can receive help in enrolling in University Hospital's charity care program. Students also established a free drug formulary consisting of medications to treat high blood pressure, diabetes, high cholesterol and depression.

In the last year, 321 students participated, offering a total of 4,770 hours of community service to the health care center. During these hours, 216 patient visits were recorded and the remaining time was spent in clinical teaching sessions. Sixteen faculty members volunteer as attending physicians for the center, many of whom were involved in the program when they were students at NJMS.

Current student directors are compiling a history of the center and want to hear from previous student leaders. If you helped run the clinic, please contact Carolyn Feuerstein via e-mail at NJMS_StudentClinic@hotmail.com with your name and class year as well as any other information you can provide.

NEW JERSEY MEDICAL SCHOOL 11

PEOPLE IN THE NEWS

Bike Ride for Global Health

THE saying "It's just like riding a bike" took on new meaning for fourth-year student Jim Fausto this spring. An avid cyclist in high school and college, he and his bike had become somewhat estranged during medical school. But as one of 24 medical professionals selected to participate in a 3,700-mile bike ride to raise money for and awareness of global health issues, Fausto had to get back in the saddle while studying for exams and juggling residency interviews.



The inaugural Ride for World Health (R4WH) kicked off on April 2 in San Francisco and concluded May 22 in Washington, D.C. Along the way, the group hosted 34 lectures in various schools, community centers and medical offices. Fausto, of Randolph, NJ, served on the education committee, coordinating 10 of the lectures.

The cyclists wanted to raise \$250,000 for Partners in Health, a global nonprofit organization, but first, each needed to raise \$2,500 to cover expenses during the seven and a half week journey. Fausto, who enjoyed tremendous support from his colleagues at New Jersey Medical School, personally raised \$3,900. Fausto finished the ride and quickly made his way back to

New Jersey for Convocation. He had a few weeks of rest before beginning his residency training in Family Practice at the Albert Einstein College of Medicine in Bronx, NY. Fausto plans to specialize in addiction medicine. During medical school, he spent time studying at the Betty Ford Center for Addiction Disorders.

Fausto's other volunteer interests have taken him to Ireland, Canada and Ecuador, but on all three occasions, he left his bike at home. — MELISSA CAMPBELL

Ride for World Health **Travelogue**

Missoula

By Jim Fausto

San Francisco, April 2

Well, this is it. We start today. After dipping our back wheels in the San Francisco Bay, the inaugural Ride 4 World Health will begin making its way across the country. The plan is to ride 20 miles, then stop for a snack break, ride another 20 miles, stop for lunch, then log another 40 miles in the afternoon stopping half way, before retiring for the evening. We'll take turns driving the support vans, taking care of the equipment, planning the route, and cooking meals so every fifth day we get a chance to re-charge.

Nevada

Can't believe it snowed in the Sierra Nevada Mountains today. Once we got down over the pass, it was a beautiful spring day—quite a contrast.

Utah

We've logged over 900 miles so far and we are all a little sore. Ibuprofen is now referred to as Vitamin I. I forgot how sore I was, though, while we camped at Bryce Canyon. We arrived around 3 p.m. and had some time to explore. What amazing views.

In a small town outside of Boulder, a park ranger we had been in contact with prior to the ride arranged for us to stay with a few of the other park rangers in the area. We had become very accustomed to sleeping communally in high school gyms, our regular accommodations, so it was almost a little lonely to be with just a few people. We were scheduled to present a lecture here and were overwhelmed by the generosity of the 150 people who prepared a potluck dinner for us before the talk. YUM!

Colorado – Monarch Pass

The high point of the ride, literally, was Monarch Pass, which topped out at 11,312 feet. Going up the eleven mile hill took some of us close to two hours, but coming down, it took only about 45 minutes—my top speed was about 53 miles an hour!

Kansas

The flatlands of Kansas were definitely a welcome sight after the hilly terrain of the previous states. We met a very friendly Vietnamese potbelly pig along the way who made us feel very welcome. We did a lot of smart riding along the way, drafting to cut down on wind resistance and taking turns breaking the wind. There were a few experienced cyclists among the group as well as some

Grand Forks

relatively new to the sport with the rest of us somewhere in between.

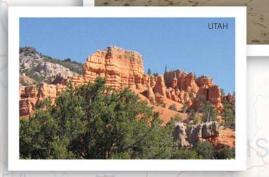
Every day we had about three or four flats; over the course of the trip, I'd estimate we must have fixed close to 200 tires.

Missouri

Each morning, after waking up, eating and getting our bikes and

brains ready for the day, we would circle up and go over the day's route. We instituted another morning tradition, the nomination of the All-Star award for going above and beyond and the Goof Ball award for, well, just about anything we deemed goofy. One woman managed to hold onto that honor for a whole week! I won't say what she did to deserve it, because, after all, what happens on the Ride 4 World Health, stays on the Ride 4 World Health!

(continued on page 15)



SAN FRANCISCO

the work a with a way





Probably the best part of the ride was not the ride itself, but **the opportunity to see America from a completely different perspective.**

PEOPLE IN THE NEWS



NJMS Student **Pursues Research** at NIH

W/**HAT** can be better for a third year medical student than to witness the excitement of discovery, while working alongside the world's most brilliant scientists. That is exactly what happened to Hiral Patel, thanks to the urging of the medical student's mentor Pranela Rameshwar, PhD, associate professor of medicine at NJMS, who encouraged her to apply to the Howard Hughes Medical Institute Research Scholars program. She was accepted and last year moved to the National Institutes of Health campus in Bethesda, MD, for 12 months. There, along with 40 other medical and dental students from the U.S., Patel chose a mentor and research project to pursue. She attended weekly presentations from renowned scientists and had the opportunity to collaborate with researchers from several different fields, including dermatology, diabetes and ophthalmology.

Patel chose to work in the lab of Thomas Waldmann, MD, developing new ways to enhance the body's immune system to fight cancer. Since she wants to pursue a career in oncology, conducting both clinical and translational research at the NIH was a rewarding experience. "Knowing that my work could help further the understanding of cancer pathology and lead to better treatments kept me going on days when nothing seemed to go right in the lab," she explained. The Howard Hughes Medical Institute employs more than 300 investigators who direct research laboratories on campuses and universities throughout the U.S. Since 1998 the Institute has awarded \$1.5 billion in grants.

Now back at NJMS, she continues to find cancer pathology fascinating and challenging. "During clinical rotations I am inspired by my patients' courage at such a difficult time in their lives," she explains. "Their conviction pushes me to work harder." – JILL SPOTZ



WILLIAM GLUCKMAN, DO, chief of the division of emergency medicine and assistant professor of surgery, received the Educator of the Year Award from the New Jersey State Chapter of the American College of Emergency Physicians. In addition to serving as medical director for University Hospital's Emergency Medical Services, Gluckman is also the advisor for the medical school's Emergency Medicine Interest Group, which provides opportunities for students to learn more about the field hands on.

DAN BOUTSIKARIS'08, a member of the Emergency Medicine Interest Group, was selected to receive the Medical Student of the Year award from the same organization.

EILEEN MOSER, MD, FACP, director of Resident Professional Development, was elected Northern Governor of the New Jersey Chapter of the American College of Physicians. In this capacity, she will be responsible for chairing the chapter's membership committee and co-chairing the 2007 Scientific Program.

JOEL DELISA, MD, professor and chair, Department of Physical Medicine and Rehabilitation, was named vice-chair of the American Board of Medical Specialties. DeLisa previously served on the group's executive committee and held the office of treasurer.

HARVEY OZER, MD, professor and director of the New Jersey Medical School-University Hospital Cancer Center, was reappointed as commission member to the New Jersey State Commission on Cancer Research, serving through June 2008.

THE DEPARTMENT OF FAMILY MED-**ICINE** celebrated its 15th anniversary.

A Large Step Forward for Tuberculosis Diagnostics

D AVID Alland, MD, chief of the Division of Infectious Disease at NJMS, is collaborating with scientists from the Cepheid Corporation, a Sunnyvale, California-based molecular diagnostics company, to apply their latest biotech innovations to develop a simple, accurate, rapid and affordable diagnostic test to identify those who have TB.

The collaboration between Alland and the Cepheid Corporation was arranged by the Foundation for Innovative Diagnostics and is supported by a \$3.7 million grant over the next three years by the Bill and Melinda Gates Foundation. Last year, there were

Bike Ride

continued from page 13

Zipper Day!

It was somewhere in Missouri that we reached the halfway point of our journey. Because the bike route was printed horizontally across the front of our bike jerseys, we knew we were half way when we made it to the zipper. We had been keeping track of our progress thanks to those great zippers.

12 days of rain

It's hard to believe that for almost two weeks it rained. It started in St. Louis, and somehow we managed to ride with the storm front through Illinois, Ohio, Indiana and West Virginia. We were an interesting collection of people, equally divided between primary care and surgery. My thought is that we reflect the two types of people who would find this trip compelling—the easygoing, hippy approximately three million TB cases reported worldwide. There were 485 documented cases in New Jersey in 2005.

Alland explained that this diagnostic instrument will be integrated into desktop equipment. Sputum samples from patients suspected of having TB will be added directly to a small cartridge that will be inserted into the instrument. A readout will be produced by the apparatus in less than two hours.

"This new technology will have the sensitivity to provide healthcare professionals with rapid results that currently require days to weeks to produce," Alland explained. "Our medical school laboratory developed the TB assay and

types who want to save the world and the sporty, competitive types who thrive on a challenge. Guess that's what makes the world go 'round!

Ohio

Riding into Ohio was akin to a homecoming. Since the ride was conceived by a group of medical students at Ohio State University Medical Center, there was a lot of excitement abounding when we rolled into town. A number of people met up with us outside of town and rode in with us. The school had designated it Global Health Day and we presented several of our lectures to a huge crowd. We had prepared a total of four lectures for the trip and all of us were able to deliver any of them: HIV/AIDS, Global Health 101, Childhood Health and Survival, and Access to Health Care.

West Virginia

It's amazing how surprised people are when they hear most of the statistics we cite in our lectures, for instance, 11 miladapted it to the Cepheid-manufactured cartridge. This will be the first time that sputum samples are processed automatically for fully integrated and automated nucleic acid analysis." The device also will predict whether a patient has TB that is resistant to the drug rifampin, which usually indicates that the TB is multi-drug resistant.

Today's standard culture method of TB detection takes days to process and frequently is inaccurate. With faster detection, physicians can better treat patients. A chronic bacterial infection, TB causes more deaths worldwide than any other infectious disease.

lion children die needlessly each year from AIDS, TB, malaria, parasites, and malnutrition. And at least two-thirds of these deaths are preventable. A \$3 insecticide treated mosquito net can save hundreds of dollars in medical treatment for malaria and can save a life if the medical treatment is not available, as is the case in so many places.

Washington, DC

Home stretch. Probably the best part of the ride was not the ride itself, but the opportunity to see America from a completely different perspective. I was continuously overwhelmed by the support and generosity of the many people we met along the way, most of them complete strangers. And of course, I have made friends for life. We have all pledged to do an alumni ride next year, joining the 2007 riders for a leg at some point along the way. Even after 3,700 miles of sore knees, tired muscles and road rash, I can honestly say I am looking forward to it!

The Golden Apple Award

Leaders, Role Models, Mentors and More

A top-quality education depends upon exceptional teachers.

Golden Apple awards are given by New Jersey Medical School students to honor their outstanding teachers for providing excellent learning experiences in the classroom, the laboratory, the hospital and other patient care settings, in addition to serving as mentors.

This year, 13 faculty members and six residents were singled out for this significant honor. Many of the faculty members on the list have been awarded Golden Apples year after year.

We salute all of the winners and provide you with short profiles of four of them to illustrate the qualities that make a good teacher—as determined by the students.

By Eve Jacobs



Alan Beitler

MILITARY MAN-AT EASE

Twenty-seven years in the army is more than likely to leave its mark, but neither Alan Beitler's bearing nor his demeanor give any indication of his long military history. He retired from the U.S. Armed Forces in December 2005 and that month became

Chief of General Surgery at the Veterans Administration New Jersey Healthcare System. He is currently an associate professor of surgery at NJMS.

A native of Long Island, Beitler entered the United States Military Academy at West Point in 1973. Why did he choose to take a military path? "The price was right," he quips. "It was free."

"The education there is great," he continues. "And the values of 'duty, honor, country'

guide me to this day. I didn't know what I wanted back then, but the curriculum is broad-based, and you can go on to do anything. Some of my friends have done incredible things." In fact, some of the doctor's classmates did go on to do extraordinary things, among them José María Figueres Olsen, class of '79, who served as president of Costa Rica from 1994 to 1998. But despite the glowing report he gives the education and his fellow students, Beitler comments: "West Point was not a pleasant place in the 1970s. It was the end of the Vietnam War not a kind and gentle time, not a good time to be part of the military."

Following graduation in 1977, Beitler served as an infantryman in Italy. Three years into his military commitment, he remembers riding on the back of a truck with a colleague, covered with manure. "We were dirty, miserable and lamenting that this was no way to live a life. Then he started talking to me about his plans to go to medical school."

The then-24-year-old recalls thinking those plans "sounded so appealing—no one telling you what to do, no regimentation, and the opportunity for helping people." Without any prior serious thought on what his next step in life would be, Beitler decided then and there that medical school and medical practice sounded pretty darn good. So, when he returned to the States, he took "catch up courses" at night, applied and was accepted at SUNY School of Medicine and Biomedical Sciences at Buffalo.

What he found there was "such a different life from West Point, which was so time consuming, so regimented and so allconsuming. Medical school, on the other hand, was thoroughly enjoyable."

Of course, he understands, that "the perspective of having been an infantryman in the army helped." While many of his classmates found medical school to be a grind, "I thought it was great! After slogging around in mud for years, being back in the classroom was a treat," he says.

SO WHY DOES ALAN BEITLER THINK THE CLASS OF 2007 CONSIDERS

HIM WORTHY OF A GOLDEN APPLE? "I THINK IT'S BECAUSE I TREAT THE STUDENTS AND RESIDENTS WITH RESPECT.

I believe that how you deal with people makes an enormous difference."

Although he initially thought he was headed into pediatrics, Beitler switched gears during his fourth year of medical school. "The fundamental approach of surgery really appealed to me," he explains. "While pediatrics is largely detective work, surgery gives you the opportunity to sort out problems, do something to address them and oftentimes fix them." "I see surgeons as more complete doctors," he continues, "because they can often see a problem through to completion."

Beitler first completed a general surgery residency at Fitzsimons Army Medical Center in Aurora, Colorado (east of Denver), where, he points out, John Kerry was born on December 11, 1943. The hospital closed in 1999.

He then chose to specialize in surgical oncology because it afforded him the opportunity to "spend more time building a rapport with patients who are facing such a significant event in their lives. You can do so much good," he says. "Instead of a patient's last days being torture, you can make a difference, even if you can't operate. You can make their quality of life, and death, better."

On the technical front, he finds specializing in oncology to be more rewarding because "you operate all over the body you're not limited to a narrow focus."

But it's the combination of doctoring and teaching that he finds so satisfying. "To do your 400th hernia operation might not be terribly exciting, but to do that surgery with someone who is in there for the first time—that's a great experience!" he says.

He admits that there is some angst when you're the senior person doing that surgery with a first-timer. "You give up a measure of control," he states, "but it's well worth it."

So why does he think the Class of 2007 voted their new professor worthy of a Golden Apple? "I think it's because I treat the students and residents with respect. I believe that how you deal with people makes an enormous difference," he says. "All of these students are bright and energetic."

He also believes that how a teacher relays information is very important. "I try to transmit information in a way that makes sense. 'Keep it simple, stupid!' is always in my mind, but I also like to give a multi-tiered explanation—something for everyone."

"You have to understand the material and keep up with the literature, but teachers don't have to be brilliant," he comments. "You don't have to be the brightest bulb to light up the room."

He thinks students really appreciate time and attention. "My sense is that sometimes they're ignored," he says.

A portion of the third year medical students spend a threeweek surgery rotation at the Veterans Administration Medical Center in East Orange, where Beitler is stationed most of the time. The students divide their time between vascular surgery and general surgery, attending a series of conferences, going on daily rounds and observing actual operations.

Beitler believes that even students who already know that surgery will not figure in their future work should be exposed to the goings-on in the OR. "It's good to know what other specialties do," he says. "It paves the way for improved communication and cooperation." He likes working at the Veterans Hospital because, he says, the pace is not quite so pounding. "You have the time to spend with patients, and also to teach. Plus, caring for veterans is an important public service."

Beitler achieved the position of colonel in the army before retiring. His last years in the military were spent at the precise place that he started his career—West Point—but this time he was Chief of Surgery at their hospital. On looking back and looking forward, he says "I had a rich and rewarding career in the military, filled with clinical, administrative and leadership opportunities in the United States and abroad."

"This is what I want to do now. I want to be around to raise my family and I want to teach people how to be good doctors and take good care of patients." His wife, Ruth, is an associate professor of international relations and comparative politics at West Point, and he has two daughters, Eliyana and Hannah, both age 7.

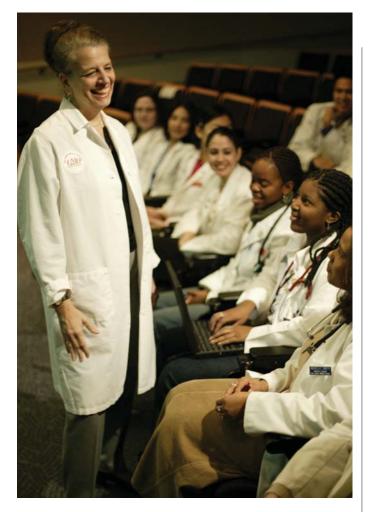
It's obvious that Alan Beitler is doing an A-1 job. His students certainly salute his efforts—and it's not often they hand out their highest honors to someone who's been "back to school" for a mere 18 months.

Sylvia Christakos

A BARRELFUL OF GOLDEN APPLES

Success is rarely handed out on a silver platter—it's earned by hard work, talent, focus and a certain "je ne sais quoi," or indefinable something. Sylvia Christakos, PhD, professor of biochemistry and molecular biology at NJMS, is an indisputable success. Her accomplishments speak for themselves: 25 years of teaching and NIH-funded research at NJMS, earning tenure in 1985 and a full professorship in 1990; establishing a lab that is now among the top three worldwide for Vitamin D research; publishing 125 peer-reviewed articles; serving as the third woman president in 2004/2005 of her professional organization—the American Society for Bone and Mineral Research and as associate editor of its journal; and last but not least, winning 13 Golden Apple awards for excellence in teaching medical students.

Her love of teaching gets her going every morning and has been a consistent thread throughout her professional life. And it is her unwavering belief in the value of learning that propelled her to earn a doctorate in molecular biology at a time when "women" and "science" were not often married in the same sentence. In fact, she comes from a line of strong, determined women, who all carved out their successes despite serious hurdles.



The Greek island of Chios—home to Hippocrates and Homer—was also home to Christakos' grandmother, who left there to set sail for the U.S. with her young daughter in the early 1900s.

The young émigré made success happen—establishing in lower Manhattan what became the first Greek school in New York City, teaching Greek language, customs and history to the

children of immigrants. "She was a real trailblazer who believed in the value of education," says her granddaughter proudly.

Unfortunately, Christakos' grandmother died of breast cancer in her early 40s, leaving an 18-year-old daughter, who very

much wanted a college education, but suddenly needed to support herself. Despite that major setback the daughter established floral businesses—with her husband—which became "the best" in Queens. After her husband's death in his 50s, Christakos' mother not only managed but expanded the original business. "My mother read *The Wall Street Journal* and invested in the stock market. She worked 14-hour-days in the 1950s, when most women stayed at home," Christakos comments.

Christakos kept those early lessons in mind when she headed off to college. She credits her four years at a small, womenonly college with providing an excellent learning environment. She had a talent for science, and also a facility for writing, a combination of abilities that has allowed her to continuously win the grant money that has supported her research and that of six PhD students and post docs in her lab for 25 years.

In her next 10 years she married Manny Christakos (now a surgeon in private practice) in 1970, earned a PhD in endocrinology from the State University of New York at Buffalo in 1973, completed a post doc in physiology at Roswell Park Memorial Institute, SUNY Buffalo, in 1974, a post doc in biochemistry from SUNY Buffalo in 1976, and another post doc in biochemistry in 1980 from the University of California, Riverside.

She says her acceptance into a National Science Foundation program at Cornell Medical School during one high school summer introduced her to high level science. Then "excellent mentors" from her graduate and post doc programs helped her progress along the right path.

Her motto for herself is: "Give it 150 percent," a drive that has certainly contributed to her excelling as a teacher and a researcher.

But what Christakos brings to the table that everyone recognizes as truly golden is her "caring about the students and caring enough about their learning to want to facilitate it in any way I can."

Add to that her feeling that "it's a privilege to teach NJMS students. They're down-to-earth, idealistic and enthusiastic. They make it a pleasure to come to work every day."

The researcher sees molecular biology and biochemistry as

SYLVIA CHRISTAKOS FEELS "IT'S A PRIVILEGE TO TEACH NJMS STUDENTS.

THEY'RE DOWN-TO-EARTH, IDEALISTIC AND ENTHUSIASTIC.

They make it a pleasure to come to work every day."

the "hottest area, the one where you can make the biggest difference in treating disease." There is an enormous amount of basic science information for her to teach and for her students to learn, which she makes pertinent by infusing the clinical correlations into her lectures. She explains that this course gives students the biochemical bases for their future patient care. She not only sparks the enthusiasm of first year students, but also PhD candidates and post docs who work in her lab, which has been consecutively funded for almost three decades by the NIH—oftentimes by more than one grant at a time.

In the course of her career, Christakos has trained 19 PhD students and 11 post doc fellows. "My lab is my other family," she says. She proudly rattles off their accomplishments: "One of my MD/PhDs is now at Novartis doing drug safety work; one heads her own lab at Wyeth/Hearst; another is an associate professor at the University of Connecticut; one is a dean of research at Marquette Dental School; another does clinical trials research at Novartis; another is a resident in pathology at Duke," and so it goes, on and on.

Her advice to those she helps train is the same she has given her own three children as they establish their paths in life: "Never become complacent. Maintain your ideals. Never lose sight of why you chose your profession. Never think of it as just a job—keep in mind your larger purpose and you'll always be happy."

There's no doubt that her students are wowed—they've given her a barrelful of golden apples over the years. One student summed up her merits simply: "Dr. Christakos could very well be the world's perfect professor."

The admiration is mutual. Christakos recognizes that these students—just starting to prepare for their careers—will be the ones to change the delivery of patient care and teaching in the future. She says: "Do it your way. Set yourself the goal to make it all better." And she believes that they will.

Kenneth M. Klein

TEACHING UNDER THE MICROSCOPE

To the naked eye, humor and pathology appear to have little in common. But under the microscope, it's a whole different story. Kenneth M. Klein, MD, has been teaching pathology at NJMS for 30 years and at least some of his success can be attributed to the fact that his "funny bone" is still intact.

When asked why he thinks second year medical students award him the Golden Apple year after year, he uses cartoon humor to illustrate his point. A visiting lecturer presented this cartoon, Klein explains, and it struck a nerve.

Cartoon panel 1: A little boy and a little girl are talking. There is a dog by their side. The little boy says: "I taught Spot how to talk." The little girl answers: "I don't believe you."

Panel 2: The little boy says, "OK, I'll show you." He addresses the dog: "Spot, talk!"

Panel 3: Both children watch Spot.

Panel 4: The girl says, "I thought you said you taught Spot how to talk." The boy answers: "I did. But I didn't say he learned it."

It's a point well taken. Klein says that if he gives a fabulous lecture and Spot attends the class, but doesn't learn the lesson, then his teaching deserves to earn a failing grade. There are many faculty members at all universities who feel their responsibility ends with the delivery of information, he says, and that situation has gotten worse with the popularity of Powerpoint.

"There are teachers who only read the bullet points out loud from their slides. Can you imagine?" he says.

Lest you think the pathologist entertains in his lecture hall, think again. His style of teaching is traditional-no bells and whistles, no Saturday Night Live routines. But his plain and simple approach evidently works. He's received 23 annual teaching awards from his students in 30 years, and only a rule stating that a faculty member cannot be awarded the Golden Apple for more than two out of three consecutive years running gives him an imperfect score.

He says modestly: "I present information that is interesting and useful." But clearly there's more here than initially meets the eye.

"Pathology is not a specialty that is a popular career choice for American medical students," states Klein. Despite being crucial to the practice of medicine, most of a pathologist's work is conducted behind the scenes and does not involve direct patient care.

Pathology, however, provides the scientific basis for medical practice by using basic research methods to uncover information that supports or refutes a diagnosis and helps the physician

After a residency in pathology at NYU-Bellevue, he remained on the faculty at NYU for four years and discovered that he had some talent for teaching. "I didn't set out to be a teacher," he said. "The students liked my teaching."

When he moved in 1976 to NJMS, Klein had to make a difficult choice. "I enjoyed the teaching and I enjoyed the service. I saw that research would require too much of a time commitment. I didn't want to be a jack of all trades, master of none." So he homed in on what he liked best, developing a reputation in gastrointestinal and liver pathology, and also as a master teacher. He was elected into UMDNJ's Master Educators Guild

map out the course of treatment. According to the department's Web site, pathologists look for gross and microscopic changes in cells, tissues and organs caused by disease processes, as well

KENNETH KLEIN SAYS THAT IF HE GIVES A FABULOUS LECTURE AND A STUDENT ATTENDS THE CLASS, BUT DOESN'T LEARN THE LESSON,

beta chapter in 2004. Does he think students have changed much since 1976? As a group they've

in 2003 and NJMS's

Alpha Omega Alpha-

then the professor's teaching deserves to earn a failing grade. changed very little, he says. But he has

as conducting biochemical and microbiological tests on body fluids, cells and tissues. In other words, a physician's care plan is based on the pathologist's work, so no matter which specialty a student eventually chooses, he or she will have to collaborate with a pathologist.

"Useful" learning is the key here. Klein helps students grasp how the volume of information taught under the rubric of pathology relates to health and disease, and so to their future doctoring. Second year students-overwhelmed with the sheer quantity of facts they're asked to absorb-often don't understand the relevance of such a course to their future professional practice.

But Klein has the talent—and also has honed the skills—to engage his students. To what does he attribute his success as a teacher? "I project an attitude that I'm interested in my students." (And he is.) "I look at every student in the room-I don't talk to the screen.

"I know my lectures cold, I talk slowly and try to make myself understood. I have predigested the material and I present what's relevant. I answer questions during the lecture-I don't wait until the end and I occasionally throw questions out to the students. I observe what good teachers are doing and incorporate what I can."

In other words, he cares that his students learn. A graduate of the Bronx High School of Science, he says he went to medical school "to learn as much as I could about disease. My goal was to be a researcher." His medical school years were shared between SUNY Downstate Medical Center and Catholic University in Belgium.

noticed that many have shorter attention spans and rely heavily on visual material. "Everyone is computer savvy. Everything presented in class must be posted on Web CT so students can access it," he comments.

Labs and small group sessions in pathology are mandatory, but lectures are not. Although all lectures are available on the Web, Klein continues to believe in the value of classroom teaching. Although attendance at lectures started to drop off at all medical schools in the 70s, and has continued to do so, he says: "There is something lost for those students. They miss the human exchange, the stress placed on certain words, the personal anecdotes."

With the new Jubilee Curriculum that was launched at NJMS last year, pathology has been absorbed into a more encompassing course called "Disease Processes, Prevention and Therapeutics." Klein is OK with that. "It's more cohesive," he says. "We're tying together the information from what were previously several tightly marked disciplines." He believes the new approach encourages students to see the relevance of the basic sciences to their clinical work and has allowed the faculty to weed out the redundancies as well as fill in the gaps.

"I like what I do," he says simply in conclusion. "And when I bump into former students, which is frequent, they come up and talk to me about something they remember from my class years ago."

Klein's efforts on behalf of his students do not go unrecognized—and it doesn't take a high-powered microscope to detect that.

<u>*Lisa Dompeo*</u> TALKING ABOUT A LEGACY

At a time in our country's history when the topic of immigration finds its way into numerous conversations, Lisa Pompeo, MD, brings up her immigrant father with obvious pride. He came to this country alone from a small town in rural Italy at age 16 speaking no English, she says, and went "from pushing a broom to vice president of his company." Along the way he instilled in his daughter certain of his own principles that have become integral to her personal world view-chief among them his great respect for education and his insistence that "you do things because they're right, not because they're expedient." Pompeo's Golden Apple is rooted in those seeds planted by her father.

She became the first person in her family to graduate from a four-year college, and then there was no stopping her. She "grew up seeing myself as a doctor," but, in fact, took a bit of a detour along the way. She was introduced to biomedical research by a dynamic faculty member at the University of Dallas, a small liberal arts college in Texas where she did her undergraduate work, and fell in love with molecular biology and life in the laborato-

day I was scared to death and three people said hello to me-I saw it was a friendly place. I love being here. I love the students. I love the hospital. I love the atmosphere."

Most important, she says, "There is an underlying understanding that everyone cares about the patients...This is the most important component."

Put "caring" about people-whether they are students, patients, family or other relationships-right at the top of Pompeo's own priorities. She finished her residency and became an attending at UH in July 1998. After just one year on the job, she was asked "to keep an eye on the medical students" by Gerard Hanson, MD, an associate professor in the department. Then, over a two-year period, she became site director at University Hospital-eventually taking on the responsibility of all educational activities there for the NJMS Department of Obstetrics, Gynecology and Women's Health. Two summers ago she became the clerkship director, setting the educational agenda, goals and objectives, and taking charge of the educational programs for third year medical students at all of the sites where the department provides training (University Hospital, Hackensack University Medical Center and Morristown Memorial Hospital).

Now she is the director of medical student education for the

ry. While working in research labs after graduating, she matriculated in a master's program at NYU, where, again, she was inspired to change course by "a prominent hematologist who was an amazing clinician." Dr. Robert Silber, she says, "helped so many people. He had such a wonderful relationship with his patients that they often came to visit him in his lab."

Pompeo realized that doctoring truly was her calling. In 1990, she began her studies at SUNY-Stony Brook's School of Medicine, initially intending to become a rheumatologist. But her Ob/Gyn rotation made her "so happy" that she immediately understood her life's work.

The Resident Match Program landed her at UMDNJ-New Jersey Medical School and University Hospital (UH) in July 1994 and she says that within three days, she knew she was "a lifer. On my first

WHAT DOES LISA POMPEO LOVE BEST ABOUT HER JOB? "IT'S THE STUDENTS AND RESIDENTS - that's the reason for being here."



department. Additionally, she is the associate director of the Ob/Gyn residency program at NJMS.

How much of her day is spent teaching? She says that's really impossible to assess. "Every single thing I do clinically, there is someone with me in a training capacity—I may be teaching a medical student or resident, or supervising a resident."

"Teaching is the most important thing we do," she continues. "It's our legacy."

"Just think, a doctor who educates future doctors touches the lives of all of her own patients and all of the patients on down the line whom those future physicians take care of," she says. "And looking at it from a very selfish standpoint, these are the doctors who will take care of me when I get old and sick."

For Pompeo, Ob/Gyn has been perfect. "It totally fits with my personality," she says. What she likes best is "being there at some of the most significant times in a person's life, taking care of them through all ages and stages—from their teens to their twilight years."

She enjoys the intimacy of the bonds that are formed. "You establish a connection with the entire family—not just the woman. There is a lot of counseling in addition to the hands-on doctoring."

Why does Pompeo think students value her teaching? "I really care," she says. "I want them to have a good experience and I want them to learn."

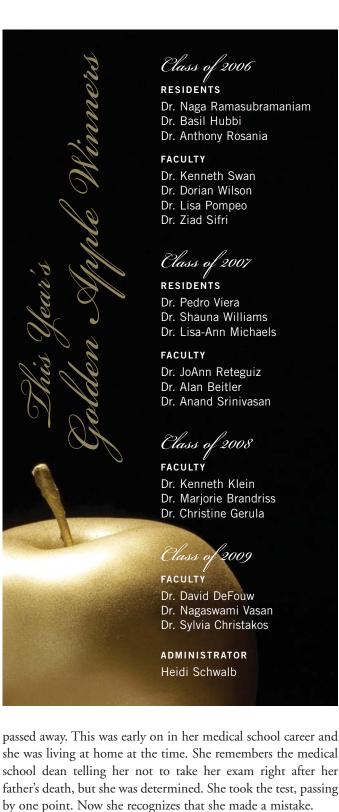
"Students also say I'm very fair," she continues. "I don't see a benefit to making things more difficult than they have to be there's no value in tripping someone up. If you need to know something as a doctor, then you need to learn it."

She is determined that third-year students come away from the clerkship feeling that they really have learned something. She wants to give them a hands-on experience during deliveries and in the OR learning to suture. She wants them to participate in these "significant times with patients."

When asked what she loves best about her job, she says: "It's the students and residents—that's the reason for being here. We could all make more money in private practice or doing research at a pharmaceutical company or at the NIH."

She has been actively involved incorporating women's health into the new Jubilee Curriculum at NJMS. "We need to expand women's health into every discipline," she states. "We need to learn more physiologically and pharmacologically about the differences between men and women and how they react to illness. We need more research into health disparities, such as why men are more likely to have angioplasties."

Pompeo's father died at age 61 from complications of diabetes. Within one month and one hospitalization, he had first one amputation, then had complications from a diagnostic test in preparation for another and went into multi-organ failure and



"We're professionals," she concludes. "We need to recognize these times in our own lives and in the lives of others."

For her dedication to their success as professionals and as human beings, and her intent to always do what's right rather than what's expedient, the NJMS class of '06 has awarded Pompeo "the gold."



By Eve Jacobs

TO "STEADY THE HANDS" OF 170 FRESHMAN MEDICAL Students as they begin their dissection of a human cadaver is no small undertaking.

Over the years, NJMS professor Nagaswami Vasan, DVM, PhD, has witnessed an array of reactions to the task at hand, many of them incredibly intense. Following their first few sessions in the gross anatomy lab, students are often shaken and wrestle with thoughts of their own mortality and that of their loved ones, he says. Witnessing a cadaver "up close and personal" may make death and dying real to many students for the first time. And that is just the beginning. In less than four months, Vasan and teaching partner David DeFouw, PhD-both of whom have been awarded numerous Golden Apples by their students-will shepherd this group through their emotional roller-coaster ride as well as what has traditionally been one of the hardest courses academically in the four-year medical school curriculum. And it's certainly one of the courses they can least afford to fail. All of their subsequent learning about health and disease will be based on a basic understanding of how the human body is constructed and how it functions, which they can only learn here.

This is the challenge that greets Vasan anew every year as each freshman medical school class steps up to the plate, but it's a challenge that calls to his heart. Even after almost 30 years doing this job and doing it well, he is always looking for a better way.

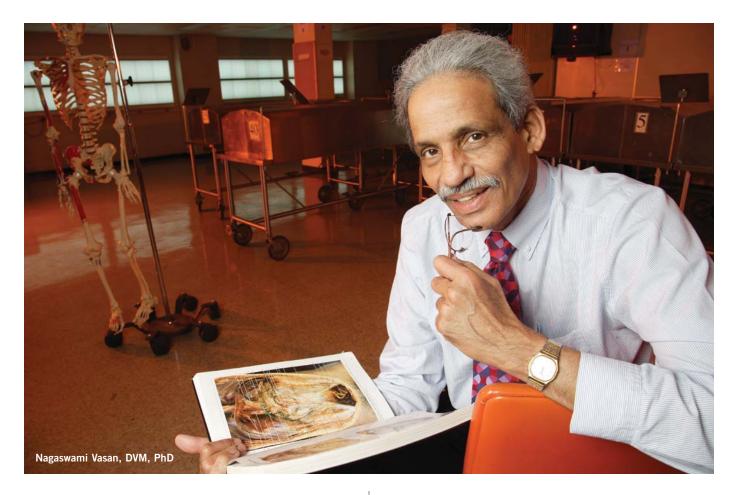
In fact, just five years ago, Scribner published a 272-page book entitled *Body of Knowledge* by Asbury Park Press reporter Steve Giegerich detailing his observations after spending an entire semester with the medical students around Vasan's gross anatomy dissection tables. The book received critical acclaim from many sources, including *Publisher's Weekly* and *Library Journal*. There has even been some talk lately about a made-for-TV movie, or series, based on the riveting action in this lab.

The book follows one group of NJMS students as they work on "their" cadaver for the 15-week class. All have since graduated from NJMS with their MD degrees. The writer focuses on each individual's reactions and the group's dynamics as the four would-be-doctors work at their dissection, a task that is both emotionally and mentally demanding. The students, many of whom have never held a scalpel, must cut into human flesh, carving out the organs, bones, muscles, joints, ligaments and tendons, of their anonymous cadaver.

Giegerich tells readers the background of the donated corpse. He was a man by the name of Tom Lewis, a public school administrator in New Jersey, who had a strong commitment to furthering science and a willingness to put that belief on the line. The journalist records the students' struggles, particularly their hesitation on having to cut into a human face, a kind-of "sacred ground" that they perceive as housing the personality.

It's clear that Vasan welcomed the reporter—and photographer Noah K. Murray—into this classroom because he has his teaching of gross anatomy "down to a science." There probably





is no one more aware of the difficulties of teaching—and learning—the material than this professor. During his three decades of trying to maximize the students' grasp of the subject matter and their scores on national proficiency exams, he has continuously modified his approach. His open door policy and quick response to comments sent by students via email has let them know he values their insights and puts them to good use.

So why, in 2004, would this longtime NJMS faculty member introduce a whole new way of teaching such a pivotal course?

Well, first and foremost may be Vasan's abiding interest in the teaching process itself. He was elected to the inaugural class of UMDNJ Master Educators in 2000, served as the Guild's president in 2002–2003, has been awarded 10 Golden Apples by NJMS students, and has been nominated every year for this award, and just this past spring was accepted to be a Harvard Macy scholar. He's one of the first faculty members from NJMS to attend this international program, he says proudly, where he is learning "how to lead change."

Leading change seems to be in Vasan's blood. In 1982, he introduced the "structured lab review," which is still in use, as well as the "mock practical," learning tools enabling students to better prepare themselves for the practical and exam. For those needing additional help, he initiated tutorials and also has spent innumerable evening and weekend hours in the lab. No student "suffers" alone. On becoming the course director in 1996, he introduced more radical changes. After attending clinics and

morning rounds at UMDNJ–University Hospital for two years, he felt equipped to revamp the entire gross anatomy curriculum, retaining only the clinically relevant material, and reshaping its presentation to "reach" these future doctors. In other words, this is a teacher who has never been content to rest on his laurels.

His current and most radical departure—Team-Based Learning—was initiated in 2004. What he discovered in his classroom-laboratory is that students learn more when they are challenged to teach themselves. He's certainly not the only proponent of this kind of teaching approach but he may be the first to try it out in a course as critical to the medical students' success. He made the decision to refashion a course historically considered to be "an intimidating nightmare" and the "make-it or break-it course" for first year medical students, into one that is still tough, but manageable. A less confident teacher—or one less proficient in leading change—would probably not have risked it.

This sweeping transformation has already yielded positive results. But with the same quantity of material to be learned, and the same difficult dissections to be performed, what is so very different?

"The number one change has been that there are no more anatomy lectures," Vasan explains. "Now students act as teachers for their teams."

Vasan himself handpicks each team. First he assigns four students to each dissecting table and then combines two tables to make teams of eight. While these groups could be assembled randomly, he explains, they are far more successful if the experiences of the members are very varied. "I mix mature and young people, women and men, students with differing work experience and those from different ethnic backgrounds. The group will fail if its members have all had similar experiences," he states.

Why does this matter when learning human anatomy? The course director explains that through the group's discussions, these students will learn differential diagnosis. Being able to identify body parts is the easy part of the lesson, he contends. More important is the development of critical thinking skills to

take that knowledge to the next step.

"Students will learn how to discuss a problem, taking into account varying perspectives, and to think things through to a satisfactory end," he says.

The class of 170 students meets three times

each week for three hours of dissection time. That constitutes 65 percent of the course time. "That has not changed," says Vasan. Each of the team-based sessions—which have taken the place of the lectures—lasts 90 to 120 minutes.

Students are given a hefty reading assignment and learning issues that must be completed before each class; and each class kicks off with a quiz. "This provides for continuous self-assessment and 'fast tracking," he says.

If a student is falling behind, Vasan says it becomes apparent immediately. "I can pull that student out and ask what's going on," he explains. "In most cases, the student is studying the wrong way. I can put the student back on the right track very quickly."

He says that his data has shown that students whose performance on weekly quizzes is consistently "borderline" will be in the lower percentile by the end of the class. "Now we will approach those students early and tell them where they are lacking," he states.

Although classes this large often have a dozen facilitators to make small group learning effective, Vasan says proudly that in this course, there are just two. He and DeFouw are always present in the TBL sessions and each "visits" half of the teams spending a few minutes with each—during every session. The facilitator observes the group dynamics, assesses if the team is doing okay, refocuses team members if the group is off-base; and might give them a "one-minute lecture," which the course director calls "micro-teaching."

"The team must arrive ready to critically discuss what they've read," he says. Fifteen percent of a student's grade in this course

will come from his "team effort," according to the anatomy teacher.

Exams are given five times during the semester. When the exams are taken away, explains Vasan, the team assembles to discuss each question, arriving at a group answer. "The conversations are really intense," he says. "Team members discuss why an incorrect answer is wrong. There is a lot of teaching going on during those sessions."

Perhaps one of the more critical elements of team-based learning in gross anatomy is peer evaluation. Students critique each other five times during the course—on punctuality, prepared-

> ness, contribution to the group, respect for each other and flexibility (considering other points of view). If a student is not contributing enough, according to the team report, then one of the facilitators will talk with him or her.

Communication, communication, communication. Vasan has demonstrated that when the communication lines are opened between students and facilitators, and students and their fellow students, "no one should fall behind."

The feedback on this new approach has been "outstanding," he says. Students learn quickly that there is a limit to one person's knowledge, and that team members have to talk with each other and rely on each other. "It teaches future doctors to work as a team," he says. "Memorization no longer works. Team members are forced to think critically."

Vasan does admit that the course is a lot of work for the two facilitators, who are responsible for the success of all 170 students. Every week the students' data is input in Excel, he says, so that the facilitators can chart each student's performance.

What has become apparent is that when the data from 2002 and 2003 (when gross anatomy was taught traditionally) is compared with the 2004 and 2005 data, the students are doing much better now. National test scores are rising, too.

"Medical students are competitive," Vasan says. "So when they see it works for one course, they figure why not try it in other classes as well."

Next year the gross anatomy teacher will work with the biochemistry faculty at NJMS to initiate team-based learning in that course. And other medical schools across the country are asking for his help, too.

Vasan does not take these successes lightly. He knows that teachers are tested even more strenuously than those they teach—and that an A+ from students is hard-earned and a very sweet thing.

"*The number one change* has been that there are no more anatomy lectures," vasan explains. "Now students act as teachers for their teams."



By Maryann B. Brinley

HE TIMING WAS PERFECTLY TERRIBLE: it was just a few months after the September 11th terrorists' attack on the World Trade Center and the subsequent anthrax outbreaks.

Fears about bio-weapons were on everyone's mind. Even opening ordinary mail had become fraught with danger. So the idea of moving 61 years worth of stored pathogens—a scientific treasure trove of the world's most dangerous infectious agents and potential weapons of mass destruction including everything from *mycobacterium tuberculosis* (source of TB) to major hospital acquired bacteria—out of the safety of their freezers and into the streets of New York City, might have sounded like a prank. Yet, moving day for the Public Health Research Institute (PHRI) was fast approaching.

For David Perlin, PhD, PHRI's scientific director, the logistics of this legitimate task-no joke at all-looked doable but not without myriad problems. His biomedical research organization, which specializes in understanding the molecular basis of disease by studying bacteria, fungi, and viruses, had been a New York City icon for decades, and was located within the NYC Department of Health's Bureau of Laboratories building in downtown Manhattan. PHRI, which conducts basic and applied biomedical research in infectious diseases, had outgrown its quarters and needed expanded lab space. This is the place where infectious nightmares like polio, typhoid fever, influenza and smallpox were studied before and during the emergence of the antibiotic era. Through the years, PHRI researchers have made landmark discoveries that have advanced major scientific disciplines including virology, bacteriology, immunology and biochemistry. "We have a rich history of joining science with medicine and our research has to go from bench to bed and back again. We always ask ourselves: where can we make a difference?" Perlin explains. But in 2001, "Just to accommodate our TB program, we'd been running the small Biosafety Level 3 (BSL3) containment area 24 hours a day, seven days a week."

So, after extensive negotiations, PHRI and UMDNJ officials agreed the move to the International Center for Public Health (ICPH) in Science Park, Newark, would be beneficial for both parties. The new building, with its open landscape architecture and state of the art laboratories, is just down the street from New Jersey Medical School (NJMS)'s main campus on land owned by the University. "There are no walls between the labs and everything about us fosters interaction."

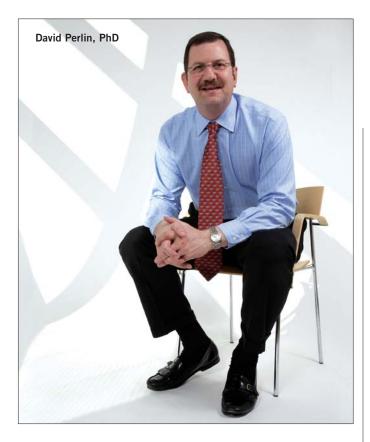
Perlin himself was involved in every construction phase and had even talked his 17 principal researchers into moving and

leaving all their old equipment behind in exchange for customdesigned research space and new equipment. "This building has won awards and so has our architect. We're now the model for many National Institutes of Health Biosafety Level 3 spaces." Every single lab director moving to New Jersey was interviewed by the architects to make sure research needs would be met. "We believed that this wonderful new space would also help us recruit new scientists pursuing infectious disease research"—a dream that has since materialized for PHRI and NJMS and something that makes Perlin very proud. Just last March, UMDNJ's Board of Trustees gave the green light for the development of an agreement for PHRI to become a formal center of the New Jersey Medical School. This year also marks the 65th anniversary of PHRI as an institution.

In his sunny, second floor office on Warren Street, Perlin reaches for an old copy of *Life Magazine* with its cover story on violence in the streets of Newark and a stark black and white photo of a gunshot victim which leaves nothing to the imagination. At first, when confronted with a relocation to new quarters, across the Hudson River, "a lot of the PHRI faculty said to me, 'You must be crazy.'"

Many of his staff members are confirmed New Yorkers who have since grown to love their new work space, even with its commute. "There was already a small group of medical researchers here at NJMS working in infectious diseases," he recalls. "Our move to the medical school has complemented this existing program." PHRI played a central role in the award from NIH for construction of a new building to house a Regional Biocontainment Laboratory with additional BSL3 areas and more room for scientists to conduct pathogen related research.

In fact, Perlin describes the last few years here in Newark as "a fabulous experience" and credits the specialized facility as well as innovative investigators, all determined to have an impact on the infectious and parasitic diseases that kill or disable millions of people each year. From using DNA to fingerprint more than 21,000 strains of TB worldwide to inventing simple probes for faster diagnosis of bacterial, fungal and certain viral infections, PHRI researchers are "focused on making an impact on disease," Perlin says. Because of the current uncertainties in funding from NIH and other sources, "You need to be daring, perhaps a little crazy and ahead of the scientific curve." PHRI grants and financial sources have been growing since the move. The organization's annual research budget exceeds \$12 million and is derived from grants as well as government, foundation and industry contracts. PHRI inven-



tions have resulted in more than \$20 million of licensing revenue in the past 10 years.

Yet, back in early 2002, the picture wasn't quite as clear and Perlin had one very big basic hurdle to overcome: transporting those troublesome collections of bacteria, fungi, and infectious micro-organisms. "Even the freezers were a challenge. Funny," he says, "but prior to 9–11, no one would have cared about us moving these biological agents. It would have been just us, perhaps sitting in mid-town traffic. I would have been nervous, of course," but the environment after 9–11 changed everything. The New York City authorities didn't want anyone, certainly not the media, to know PHRI was relocating.

"By and large, preparing for that move was a nightmare for two months," he recalls. To make arrangements, one of his first calls was to the Office of Emergency Management (OEM), which had been housed in the World Trade Center but was temporarily located at Pier 96 on the Hudson River. At a meeting Perlin won't ever forget, there were "cops, cops and more cops" representing every law enforcement authority with any jurisdiction in the area, from the Metropolitan Transportation Authority (MTA), to the New York City Police Department (NYPD), the New Jersey State Police, local New Jersey police departments, and the Port Authority police who controlled tunnels and bridges.

"They had asked me to prepare a list of the pathogens we would be taking and I put it in the center of the table," he states. Officials gathered around.

After a moment of silence, someone picked up the list,

looked at it and threw it back onto the table. "Not through my tunnel," this guy announces.

"He was in charge of the Holland Tunnel," Perlin recalls.

Now in the comfort of his office, he can laugh a little but at the time, tension mounted and heads started shaking from side to side. To a chorus of "No way...no way...no way," Perlin argued his case. "No one wanted the responsibility."

Finally, the gentleman representing OEM declared, "We're not leaving here today until we find a way to make this happen. We will come up with a solution."

From there, the discussion took the PHRI pathogens on various hypothetical routes through the city, even zig-zagging through the streets, from the lower east side, up across the George Washington Bridge and down the New Jersey bank of the Hudson.

"I was shaking my head to that suggestion, thinking, 'Not a good idea,'" Perlin remembers. "Did we really want to be driving these pathogens throughout the entire city?"



Ultimately, for three consecutive weeks in late February and early March, 2002, on Wednesday nights from midnight to 4 a.m., the research legacies of PHRI, housed in unplugged freezers, were loaded onto trucks, driven up First Avenue, across 34th Street and through the Lincoln Tunnel. Accompanied by armies of police convoys, PHRI movers were passed along protectively from one jurisdictional authority to the next, all the way to UMDNJ campus police, who were wonderful, he says. "We had a two hour window before the freezers would start losing their temperature and would need to be plugged back in," Perlin explains. "All kinds of simulations had been carried out to see what might happen and we also had dry ice along in case of an emergency. But it was scary."

There were two episodes that first night of moving that still make this specialist in fungal infections marvel about what might have happened. Though police had blocked off all cross streets in Manhattan, a speeding van "going at least 100 miles an hour down Sixth Avenue," raced past the roadblock and through their caravan with the pathogen-loaded trucks. "That van just missed my car by inches. Strewn pathogens could have ended up everywhere." When they arrived at the tunnel entrance on the New York side, the PHRI crew was met by 50 official vehicles with lights flashing and sirens going. Authorities had also sealed off the tunnel and blocked traffic for an hour. Later, when the movers reached their new headquarters and began plugging in the old as well as new freezers, all the "lights and power in the building went out. One breaker after another was getting tripped. Fortunately, we had an electrician there who got us right back up.

"It was chaotic and harrowing, complicated and exciting," he says, but in the end, PHRI had made all the right moves in coming to UMDNJ. "Becoming part of the University and a core here on campus are real milestones, especially for our 65th anniversary as an institution."

The Story Behind PHRI

• Founded in 1941 by New York City Mayor Fiorello LaGuardia, the Public Health Research Institute (PHRI) was established as a non-profit organization to address public health issues facing the city. Currently, the Institute's mission is to help eliminate worldwide infectious disease threats.

• PHRI is one of only a few private research organizations which concentrate on infectious disease. Its 18 laboratories, each headed by a principal investigator, are staffed by approximately 85 scientists and support personnel.

• PHRI holds 26 NIH grants, and in the past year, scientists at the Institute were co-investigators for three grants on TB and HIV funded by the Bill and Melinda Gates Foundation.

• PHRI is one of the largest private tuberculosis research centers in the U.S. with eight independent labs and 60 scientists working on all aspects of TB. In the past 10 years, it has obtained more than \$50 million for TB research.

• Besides TB, PHRI researchers are studying vaccine candidates for HIV; biodefense; molecular epidemiology of hospital-acquired infections; drug resistance in pathogenic bacteria and fungi; molecularbased rapid diagnostics; drug discovery, as well as fundamental issues in biology.

• Under the PHRI umbrella are programs like the PHRI TB Center, the New Jersey Hospital Infections Program (with more than 45 participating hospitals) as well as clinical research operations in South Africa and China.

• Working together, PHRI and NJMS led the grant initiative resulting in a \$21 million award from NIH to NJMS for the creation of the Regional Biocontainment Laboratory which is going up as an addition to the International Center for Public Health (ICPH) building.

● In the history of modern medicine, PHRI people are everywhere and always in the frontlines battling epidemics of influenza, polio, malaria, rabies, tuberculosis, malignant cancers, as well as bacterial and viral infections. When asked to name names, PHRI Director David Perlin hardly knows where to begin but quickly mentions past leaders like Jules Freund, an icon in immunology and winner of the Lasker Award in 1957 who developed a simple test for rheumatoid arthritis, and Efraim Racker, "a legendary biochemist, who helped build the field of bioenergetics and is considered one of the top scientists in the country in the 70s." Sarah Ratner, a pioneering biochemist and one of only a few women in her generation elected to the National Academy of Sciences, revolutionized studies of amino acid metabolism and elucidated key features of the urea cycle.

Among others were: Eric Kandel, 2000 winner of the Nobel Prize for his work on the biochemistry and physiology of memory, and Richard Novick, a newly elected member of the National Academy of Sciences, whose understanding of *Staphylococcus aureus* led him to the characterization of toxic shock syndrome. For more background on this institution and updates on the work of their current principal investigators, visit the website: http://www.phri.org.

JOEL DELISA, MD, MS

Professor and Chair, Physical Medicine and Rehabilitation President and CEO, Kessler Medical Rehabilitation Research and Education Corp.



Physicians With Disabilities: Why Aren't There More of Them?

ALTHOUGH people with disabilities make up about 20 percent of the nation's population, only a tiny fraction of medical school matriculants have disabilities. Why? First, let's consider some relevant history from the AAMC itself.

In 1997, AAMC President Jordan J. Cohen, MD, issued a moral charge to the medical profession. Writing in *Academic Medicine*, he called for "active steps to ensure that our health care practitioner community mirrors society's gender, racial, and ethnic mix." In a more recent essay, in the June 2004 *AAMC Reporter*, Cohen expanded the scope of the issue beyond considerations of race, ethnicity, and gender to include disability.

"Technological advances have made a host of things possible, both in medicine and in virtually every other walk of life, that were way beyond many people's abilities not so long ago," Cohen observed. "Compelling examples of individuals, albeit still relatively few in number, with mobility, auditory, and visual disabilities who are valued members of the profession argue that it's time to reconsider our traditional, often stereotypic, view of what it takes to be a capable doctor."

Significantly, the recently released and widely supported "Compact Between Resident Physicians and Their Teachers," drafted by the AAMC, also includes the disability issue. Among 10 faculty commitments in the document is this one: "We will demonstrate respect for all residents as individuals, without regard to gender, race, national origin, religion, disability, or sexual orientation."

So why don't we have more physicians with disabilities? In my experience, no American medical school has a "welcome sign" for individuals with physical disabilities. We need to do much more.

In an article in the January 2005 American Journal of Physical Medicine & Rehabilitation, I discussed the need to reassess our policies regarding physicians with disabilities and the physician workforce and made recommendations to the AAMC on how current policies could be changed to achieve this goal. I argued that medical schools' core competencies and technical standards have not kept pace with technological changes, diverse specialization, and changing practice options.

A recent AAMC publication, "Medical Students With Disabilities: A Generation of Practice," offers the medical education community a practical guide for furthering its work with students with disabilities. But I believe that some of the report's analysis and recommendations carry a negative and lessthan-constructive tone. I am especially concerned about language meant to guide universities in their treatment of students with disabilities that could be better categorized as a guide to keep physically disabled applicants out.

One key issue concerns the so-called undifferentiated curriculum versus the undifferentiated student. I favor the undifferentiated curriculum.

Medical specialization has segmented

the physician workforce—from a more homogenous group into one concentrating on specific body systems or disease entities. That is the reality of practice in the United States. My view is that significant differentiation of physicians into various specialties and subspecialties can serve as an argument for less rigidity in demanding that all students demonstrate competence in procedures that are not relevant to their expected practices.

The undifferentiated curriculum would allow students to meet competency requirements through multiple options, even including the role of physician extender, or mid-level health care provider. But I absolutely oppose using a tracking system, in which someone is admitted to medical school under the presumption that he or she will be designated to a specific postgraduate specialty. Each student must be handled on a case-by-case basis. The resident interviews by each specialty can handle that issue.

Clearly, admitting someone with a physical disability to medical school is controversial. In training competent physicians, we must protect both the well-being of all patients and the rights of all trainees. All medical students must have the appropriate intellectual capacity, ethical attitude, humanistic qualities, and desire to become doctors.

At the same time, we must respect creative solutions that people with disabilities often employ to perform tasks in alternate ways. The ability to perform the task at a defined level of quality should be emphasized, rather than the process by which the task is accomplished. We need to be flexible and consider what is possible through hard work and the use of technology.

The need for program modifications and reasonable accommodations differs for students, residents, and faculty members. A student's focus is on educational requirements and on meeting the diverse demands of the basic sciences and clinical years. Faculty members with disabilities tailor their practices to minimize the need for accommodations, and organized medicine accepts and readily supports this.

Residency, however, is truly a mixture of service and education, and it offers perhaps the greatest challenges in terms of disability considerations. Residents may need to perform certain services essential to their residency program that are not necessary for students or faculty members. Even within a specialty, not all programs have the same "service" requirements. Should this work obligation be a barrier to satisfactory completion of residency training?

These issues must be studied; they will not go away. If diversity is an essential goal, as it should be, we must work to reach it. Otherwise, it could be said that we, as medical educators, are part of the problem.

Editor's Note: This article first appeared in the AAMC Reporter (*February 2006*).

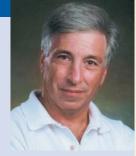
Compelling examples of individuals, albeit still relatively few in number, with mobility, auditory, and visual disabilities who are valued members of the profession argue that it's time to reconsider our traditional, often stereotypic, view of what it takes to be a capable doctor.



New Jersey Medical A LUMANTOCUS

Joseph V. DiTrolio, MD'79

A Message from the President



T HE Alumni Association has just signed a contract with the eBay "iSOLD It" stores, which are in numerous locations throughout New Jersey. This will allow anyone to bring any saleable item into the eBay store, asking that the proceeds of the sale be donated to the Alumni Association for either stem cell research/education or the General Fund. You will get a tax donation credit for the full sale price from the Alumni Association. I expect this to be a very beneficial fundraising entity for the Alumni Association; it will allow us to clean out all the junk we are never going to use and help those who need it. This is the first time this has ever been attempted by an alumni association and I would appreciate your support. To find your nearest drop-off location, go to www.i-soldit.com/locations.asp.

Having already mentioned stem cell research, the Alumni Association has "adopted" the Student Society for Stem Cell Research, an organization comprised of our medical students who are interested in stem cell research and education. Two members have recently returned from the national meeting in California, representing the New Jersey Medical School Chapter. The mission of this organization is to assist the population of the State of New Jersey on an unbiased educational quest on the topics of embryonic and adult stem cell research, and to remove the mystery and false beliefs which affect public opinion.

Since our mission is to build on the quality education we have received at New Jersey Medical School, I feel this is a perfect match for both organizations.

Stay positive and keep donating.

Alumni Physicians Share Career Insights with Students

ORE than 150 students attended the Alumni Association's career nights on March 6 and 8. Many of them postponed studying for a critical exam so they could take advantage of the popular event.

Alumni and faculty physicians participated in a panel discussion, fielding questions about work-life balance, repayment of student loans and the importance of research experience.

Many of the panelists were non-traditional students: Barbara-Ann Britten, MD'97, entered medical school at the age of 46; Peter Wenger, MD'89, played the saxophone for 15 years before starting medical school; and Joseph DiTrolio, MD'79, president of the Alumni Association, worked on fiber optics at NASA before becoming a urologist. Some of his NASA patents are the basis for fiber optic scopes used in the practice of urology.

On the question of work-life balance, panelists were most passionate. "You can structure your life any way you want," said Bruce DeCotiis, MD'75, who has five children, coached cross country for many years and runs a successful allergy and immunology practice in Belmar, NJ.

"You can set your own life," said Gerson Weiss, MD, chair of the NJMS Department of Obstetrics, Gyncology and Women's Health. He implored students to adopt the 'fun principle,' saying "If you are good at something, you'll enjoy it. If you enjoy it, you'll do it well."

DiTrolio echoed that sentiment: "When you are doing something you love, it doesn't feel like work."

After the panel discussion, students had informal discussions with alumni. Thirty specialties were represented.

Mark Bobbin, a second-year student who is interested in radiology, appreciated that alumni took the time to share their experiences. "We don't get many opportunities to investigate various specialties in the first and second year, so this was a valuable experience for me."

News of special interest to NJMS graduates

Calling All Classmates, Past and Present



ORE than 400 New Jersey Medical School students and alumni gathered on April 1 for a joint celebration to mark reunion milestones and excellence in teaching. Members of the classes of 1961, 1971, 1976, 1986, 1991, 1996 and 2001 enjoyed a dinner-dance with current students who convened to honor their favorite teachers with Golden Apple awards.

Alumni came from as far away as Arizona to re-connect with classmates and enjoy an Oscar-themed awards ceremony complete with a red carpet and student ushers for awardees. Sponsored by the NJMS Student Council, the Golden Apple awards recognize professors who demonstrate a particular commitment to teaching. Students from each class nominate faculty whom they deem deserving of the award; third- and fourth-year students also recognize the teaching efforts of residents. In all, 19 Golden Apple awards were presented.

In addition, the Alumni Association presented Suzanne Atkin, MD'79, University Hospital Chief of Staff, with the Charles L. Brown Award; Dennis Quinlan, Sr., MD'69, associate professor, NJMS Department of Medicine, with the Distinguished Professor Award; and Lester Lieberman of The Healthcare Foundation of New Jersey with the Honorary Alumnus Award.





Above: Reminiscing are members of the 45th Anniversary Class of 1961. From left, Drs. John Wrable, Vincent Napoliello, Charles Dooley and Robert Chernaik.



1. Assistant Registrar Heidi Schwalb is escorted down the red carpet by student usher James Flynn'08.

2. Members of the class of 1981 Drs. Susan Morrison and Barbara Nahas, standing, and Drs. Barry Prystowsky and Robert Melis, seated, enjoy catching up.

3. From left, Drs. Robert L. Johnson'72, Interim Dean, Dennis P. Quinlan, Sr.'69, recipient of the Distinguished Professor Award, and Suzanne Atkin'79, recipient of the Charles L. Brown Award, are congratulated by Alumni Association President Joseph V. DiTrolio, MD'79.

alumni calendar

Thursday, September 14 Board of Trustees Meeting Rosemary Gellene Room, MSB B515 6:00 p.m.

Thursday, October 12 Executive Committee Meeting Student Affairs Conference Room MSB C-654 6:00 p.m. Thursday, November 2 Scholarship Awards Dinner The Grand Foyer Medical Science Building 6:00 p.m.

Saturday, March 31, 2007 Alumni Reunion/ Golden Apple Dinner Dance The Sheraton Hotel, Parsippany, NJ

alumnifocus Profile

Deborah Bessen, MD'99

Beyond The Black Bag

By Jill Spotz

EMEMBER the "good old days" when doctors made house calls? When physicians like Marcus Welby, MD, took their black bags on the road and cared for sick patients in their homes? In that early 1970s television show, Welby's patients never had to wait in a doctor's office, impatiently turning magazine pages and wondering if the nurse was ever going to call their names.



Deborah Bessen, MD'99, is one of a growing number of physicians across the country changing the dynamic of the doctor/patient relationship by taking her virtual office to the patient.

Bessen practices family medicine through Visiting Physician Services, a New Jersey-based physician group that specializes in old fashioned house calls. She sees approximately 30 patients a week-substantially fewer than a doctor in a typical practice, but enjoys the lighter case load because it allows her to spend more time with her patients. "Large offices lose the social aspect that a family doctor provides," she explains. "I like that I can visit my patients in their surroundings, where they are most comfortable. This allows me to witness family dynamics and how it influences care."

Bessen explains that the majority of services a physician provides from the office can also be performed at home. "I draw blood, give cortisone injections or order in-home X-rays and EKGs," she explains. "Through my connections with area medical personnel, I can refer my

Deborah Bessen, MD, consults with one of her patients during a house call.



patient to a podiatrist who also performs house calls, or contact a company to coordinate oxygen therapy in the home."

The majority of Bessen's patients are elderly and/or home-bound with dementia, arthritis, Parkinson's disease, multiple sclerosis and advanced chronic obstructive pulmonary disease. "Several of my patients hadn't seen a doctor in years because they had various illnesses preventing them from doing so," she explains. "Or they were wheelchairbound and had to rely on ambulance transportation to take them to an emergency room. It is a great challenge for many families and caregivers to transport loved ones who are bedridden to a doctor's office."

According to research published in *The Journal of the American Medical Association*, the number of Medicare beneficiaries receiving medical care at home has been rising since 1998. In 2004, Medicare reimbursed approximately 2 million home visits. Why the Bessen explains that her patients also have a higher compliance rate for taking their medications. "I search the home for clues as to why they are not taking their medications and get to the root of the problem," she explains.

With an average driving distance of 40 to 50 miles a day, Bessen predominantly sees patients in central and northern New Jersey. When asked what makes a house-calls doctor different, she explains, "We do not have the same limitations as physicians operating in a typical practice. When caring for a patient in his home, I am able to see the whole story—the



"When caring for a patient in his home, **I am able to see the whole story**—the pictures on the walls, the interaction with family members, and the quality of life."

increase? "Because our elderly population is growing," explains Bessen. "Plus we have begun to realize the limitations of hospitals. In certain instances, it is more practical for patients to be cared for in their homes. My patients with dementia feel safe in their environment and are more likely to follow my plan of care."

The positive aspects of home-care are endless: reduced hospital stays, which are less taxing on the healthcare system; a more dignified and comfortable endof-life situation for elderly patients; and major financial benefits, to name a few. pictures on the walls, the interaction with family members, and the quality of life. When a patient says to me 'Dr. Bessen I can't figure out why I am not losing weight,' I don't just look at the chart. I open the refrigerator and tell them why."

Bessen and her husband, who both graduated from New Jersey Medical School in 1999, were the first married couple admitted to the school. Their first child was 16 months old when they started and they had their second baby during their third year of study. "It was very difficult," she admits. "We both took a year off consecutively to care for our small children but were able to graduate together." Bessen completed her residency at Overlook Family Practice and wanted to maintain a flexible schedule. The position with Visiting Physician Services was a perfect match.

Bessen credits her alma mater with preparing her to be a competent physician. "We received a hands-on education and were able to work with patients not just observe the attending physicians. Even now I will remember a certain lecture or class and how it applies to a current situation. I use what I learned in medical school every day."

Bessen lives in Montclair with her husband and two children.

alumnifocus Class Notes

1960

Daniel D. Cowell, MD, has been promoted to senior associate dean for graduate medical education at the Joan C. Edwards School of Medicine at Marshall University in Huntington, WV.

1964

Robert A. Orlando, MD, PhD, has retired as chair of the pathology department at Beverly Hospital in California, but is continuing as director of their laboratories. He also plays the trumpet with the Los Angeles Doctors Symphony, the University of Southern California Concert Orchestra, and participates in various studio projects.

1968

James (Jay) Phelan, MD, retired from the Navy in September 2005 and commutes between his work at NASA in Houston, TX, and his home in Hoover, AL.

1971

John Penek, MD, has been named medical director of the Chilton Memorial Hospital Sleep Disorders Center in Pompton Plains, NJ.

Richard Weyer, MD, writes about the accomplishments of his three children. His son Chris will graduate in June 2006 from Kirksville College of Osteopathic Medicine in MO, where he was elected to Who's Who Among Medical Students. His daughter Elizabeth graduated from Northwestern University in 2004 and now works in NY. His daughter Allison attends Seton Hall Law School.

1972

Thomas Dayspring, MD, FACP, became a diplomate of the American Board of Clinical Lipidology in December 2005. He is a board member of the Northeast Chapter of the National Lipid Association (NLA). In April 2006, Dr. Dayspring presented a lecture on high density lipoprotein biology and function at the national meeting of the NLA in Boston.

1976

Stuart Shoengold, MD, is director of the division of urology at Saint Barnabas Medical Center and Newark Beth Israel Medical Center in NJ.

1977

Stephen C. Blank, MD, plans to introduce the first shoe developed for pregnant women this year.

Toni H. Field, MD, is working at the Harlem Health Center, one of four clinics providing primary healthcare to Hotel Trade Council members in New York. Dr. Field is an internist specializing in primary and urgent care.

Rhonda R. Nichols, MD,

resigned in January 2005 from Jersey City Medical Center where she held the posts of chair, vice president, president of the medical/dental staff and executive director of the faculty practice. She is now in private practice in Millburn, NJ.

1982

Louis E. Rios, Jr, MD, is completing his MPH with an emphasis on bioterrorism/biodefense/syndromic surveillance. He resides in Orange Park, FL.

1985

Russell Rentler, MD, has retired from the practice of medicine and is now pursuing his passion music. He works part time at a hospital in NJ, writes folk music and has recorded four CDs. Dr. Rentler also volunteers annually at a clinic in Port-au-Prince, Haiti, treating patients with malnutrition, malaria, tuberculosis, worms and infections caused by starvation.

1986

Lawrence M. Fox, MD, is a captain in the U.S. Public Health Service, responsible for responding to natural and man-made disasters. His next site visit will be to Cambodia.

Kathy Ann Irish-Benjamin, MD, has joined the medical staff of the pediatric department at the Rome Memorial Hospital in Rome, NY.

Fox, MD,

Kevin Lavery, MD, practices ophthalmology in Battle Creek, MI, and has performed eye surgery in Cuba, China, India, Bangladesh, Peru, Kyrgyzstan, Ethiopia and Libya as a volunteer with Orbis. This is a New York-based worldwide charity organization dedicated to restoring sight and preventing blindness for people in developing countries.

IN MEMORIAM

The Alumni Association extends our deepest sympathy to the families and friends of our alumni who have passed away.

Joseph Edwards, MD'74, died on March 17, 2006. Dr. Edwards, a staff surgeon at St. Peter's University Hospital and Robert Wood Johnson University Hospital at Rahway, maintained a general practice in South Plainfield, NJ. He is survived by his wife Rhona, sons Steven and Michael, daughters Lisa Scheiner and Jennifer Friedman, brother Frank and four grandchildren.

Michael C. McDonough, MD'82, a pulmonary and critical care specialist, passed away on April 28, 2006. Dr. McDonough practiced in Bayonne for many years and was the pulmonary director of the Lung Transplant Program at Newark Beth Israel Medical Center. He is survived by his son Michael, daughter Allison, his mother Sophie McDonough, and a sister Michele Barone.

Frank V. Mignogna, MD'65, passed away on May 29, 2006. Dr. Mignogna was a head and neck surgeon, practicing in Harrison, NY. He is survived by his wife Holly, children James, Lisa and Anthony and two grandchildren.

Ida Marie Onorato, MD'73, passed away on May 31, 2006 in Atlanta, GA. She is survived by her husband, Robert S. Janssen, MD, brother Vincent Alfait, PhD, niece Fione Alfait, and stepchildren Julia and Kevin Janssen. Dr. Onorato was the Deputy Associate Director for Science at the National Center for HIV, STD and TB Prevention at the CDC. In 2002, UMDNJ honored her with a Distinguished Alumnus Award for "highly regarded infectious disease research that has made significant contributions, particularly in the fields of HIV/AIDS and multi-drug resistant tuberculosis."

Lawrence J. Pizzo, MD'59, of Mahwah, NJ, died on February 8, 2006. An otolaryngologist, Dr. Pizzo was one of the founders of the Wayne Surgical Center and president of the Advanced Practice Systems and Advanced Surgical Arts. He was a past president of the medical and dental staff and chairman of the same-day/outpatient surgery unit at Chilton Memorial Hospital. Dr. Pizzo is survived by his wife Vita, children Christopher, Jenna and Megan, his mother Louise Pizzo and one grandchild.

http://www.umdnj.edu/njalmweb/

1987

Fred A. Caruso, MD, practices pediatric radiology at Cape Fear Valley Medical Center, Fayetteville, NC, where Gene Finch, MD, practices pediatric preventive care.

Philip Chaikin, MD, is executive vice president for development and international development and head of Kyowa Pharmaceuticals, Inc. in Princeton, NJ.

Jean DeMarchis Tabin, MD, writes that she has relocated to Park City, UT.

1990

Maria Millan, MD, is the director, Liver Cell Transplant Program at StemCells, Inc. in Palo Alto, CA. Upon completion of her work with StemCells, Dr. Millan plans to return to her position as associate professor of surgery, Division of Multi-Organ Transplant, and director, Pediatric Transplant Programs, Kidney & Liver, at Stanford University School of Medicine.

Felix Dailey Sterling, MD, is the director of the cardiac catheterization lab at St. Michaels Medical Center and the Meadowlands Hospital in NJ. He is board certified in internal medicine, cardiology and interventional cardiology. Dr. Sterling and his wife Karen Sterling, MD'95, have three children.

1991

John R. Patterson, MD, practices in Virginia Beach, VA, and is among the small number of doctors who make house calls. Dr. Patterson practices family and holistic medicine, working out of his home office.

Gregory Swank, MD, FACS, a plastic surgeon, has joined the medical staff of Frye Regional Medical Center in Hickory, NC.

1993

Randeep Kahlon, MD, received the Annual Young Physician Award at the 216th annual meeting of the Medical Society of Delaware. Dr. Kahlon is a partner of First State Orthopaedics and was chosen for his leadership and service to numerous state and national medical organizations and boards. He helped to establish the Orthopaedic Trauma Service at ChristianaCare in DE and is noted for performing the first-ever carbon finger joint replacement in his state.

1995

Eugenio Rocksmith, MD, is a neurologist at the Rehabilitation Hospital of South Jersey, working with stroke and brain injury patients as well as patients with Parkinson's disease and multiple sclerosis.

1996

Debbie Salas-Lopez, MD, MPH, assistant professor and chief, Division of Academic Medicine, Geriatrics and Community Programs, Department of Medicine, NJMS, recently presented "Developing and Implementing Cultural Competency Curricula for Academic Health Centers" at the Greater New York Hospital Association Best Practices Forum on Cultural Competency Training for residents in New York City.

1998

Mary Cantey, MD, MA, assistant professor, Department of Medicine, NJMS, recently presented "Transitioning Young People with Special Health Care Needs from Pediatric to Adult Health Care" at the 103rd Annual Convention and Scientific Assembly of the National Medical Association in New York City.

Winifred Fong, MD, has returned to the state as a faculty member at

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You are important to us, and we would like to hear from you. Mail this form to: Alumni Association of New Jersey Medical School, 185 South Orange Avenue, P.O. Box 1709, MSB-B504, Newark, NJ 07101–1709. Photos are welcome. You can also send your news via e-mail to: njmsalum@umdnj.edu or fax us at 973-972-2251.

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Robert Wood Johnson University Hospital's Department of Emergency Medicine.

Katharine O'Connell, MD, MPH, was married on April 2, 2006, to Chad Scott White. Dr. O'Connell is an assistant clinical professor of obstetrics and gynecology at the Columbia College of Physicians and Surgeons in New York.

Sanjay Ramchandani, MD,

completed his obstetrics and gynecology residency at Temple University Hospital in Philadelphia, PA, where he received several awards for excellence in teaching and research and was written up in the *Corpus Christi Caller-Times* (Texas). Benjamin Rudin, MD, who practices internal medicine and pediatrics, is a member of the medical staff of North Adams Regional Hospital and has joined Adams internists in Adams, MA.

2001

William Schafranek, MD, and wife Mila announce the birth of their second son in November 2005.

2002

Prashant A. Patel, MD, is currently a CA3 anesthesiology resident at New York Presbyterian Medical Center -Columbia Campus, where she will remain for a pain management fellowship for the academic year 2006–2007.

FOCUS ON PHILANTHROPY



Gift Provides Food for Thought

HEN Thomas Infusino announced his retirement as chairman and CEO of Wakefern Food Corporation—owner of the ShopRite supermarket name and supplier of its stores—he had no idea this would provide a springboard to future scientific discoveries.

A native of Irvington, NJ, Infusino opened his first grocery store in Newark in 1945. He joined Wakefern in 1953, was elected to its board of directors in 1959 and became its chairman in 1971.

As a tribute to him, Wakefern board members presented Infusino with an endowed chair of his choosing at NJMS. After a challenging selection process, he chose Andrew Thomas, PhD, professor and chair of the NJMS Department of Pharmacology and Physiology since 1997, and an internationally recognized expert on the hormonal regulation of metabolism. Thomas, who has published more than 140 papers, was professor of pathology, anatomy and cell biology at Thomas Jefferson University before coming to the medical school.

During his tenure as chair, his depart-

ment's research funding has increased from \$1 million in 1997 to more than \$6 million today. He also recruited 12 new faculty members into the Pharmacology and Physiology department.

Thomas serves on several journal editorial boards and grant review panels, and chairs an NIH special emphasis panel on post-baccalaureate research

Brotherly Love

SEVERAL YEARS AGO, Richard Pozen, MD'74 (top right in yearbook photo) established a scholarship honoring his older brother, Michael, MD'70 (below), who died in his early 30s. Recently, Dr. Pozen endowed the fund, so that it will be a permanent legacy at their alma mater, benefiting future generations of talented medical students.

He says: "I'm thankful to New Jersey Medical School for giving me the opportunity to achieve. I donate as a way to give something back to the organization that gave me my start."

For information about creating a legacy scholarship, please contact Elizabeth Ketterlinus at the Foundation of UMDNJ, 973-972-2486, toll-free at 866-44-UMDNJ, or via the internet to ketterel@umdnj.edu.

education for minority students. He has been a regular consultant for the National Institute of Alcohol Abuse and Alcoholism at the NIH, and is a leading authority on calcium signaling, the regulation of metabolism, and alcoholic heart and liver disease.

For the next five years, the Endowed Chair will provide for the appointment of a junior faculty member to further the researcher's work, with a new focus on metabolic sensing in the brain. In addition, each year a clinical resident from one of the medical or surgical specialties will be appointed to the Thomas P. Infusino Clinical Research Fellowship, allowing the fellow to focus solely on basic science research in the areas of metabolic sensing and cardiovascular disease for one year. Funds will also be provided for an annual lecture by a leading scientific figure whose work is related to this research.

Metabolic sensing in the brain plays a critical role in the regulation of appetite and eating behavior; a dysfunctional system can lead to diabetes and obesity. Research in metabolic disorders may lead to new treatments for these conditions. — MELISSA CAMPBELL





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