

New Jersey Medical School

Volume 8 Number 1 Winter 2010

# pulse

University of Medicine and Dentistry of New Jersey



The Man Behind the Med School

## Mr. Fix-It

The Brilliance of Molecular Beacons

True Grit: A Patient's Fight to Live

Our Very Own Dr. House

*Bernie Sarrel*

# Message from the Dean

Nearly 50 years ago, 71 men and women donned graduation regalia and walked across a stage at Seton Hall University in South Orange to collect their hard-earned medical degrees from the Seton Hall College of Medicine and Dentistry. These trailblazers—the Class of 1960—represented the first group of graduates in the school’s history.

A lot has happened since that defining moment in June of 1960: Seton Hall College of Medicine and Dentistry underwent a couple of name changes, eventually becoming known as New Jersey Medical School; we relocated from Jersey City to Newark; our class sizes more than doubled; and advances in technology have in many ways enhanced how our students learn and how they are taught. In the face of these changes, one thing remains constant and that is NJMS’ commitment to excellence.

This May, the NJMS community will commemorate the 50th anniversary of the graduation of its inaugural class; salute its members’ achievements; and recognize their contributions to our beloved school.

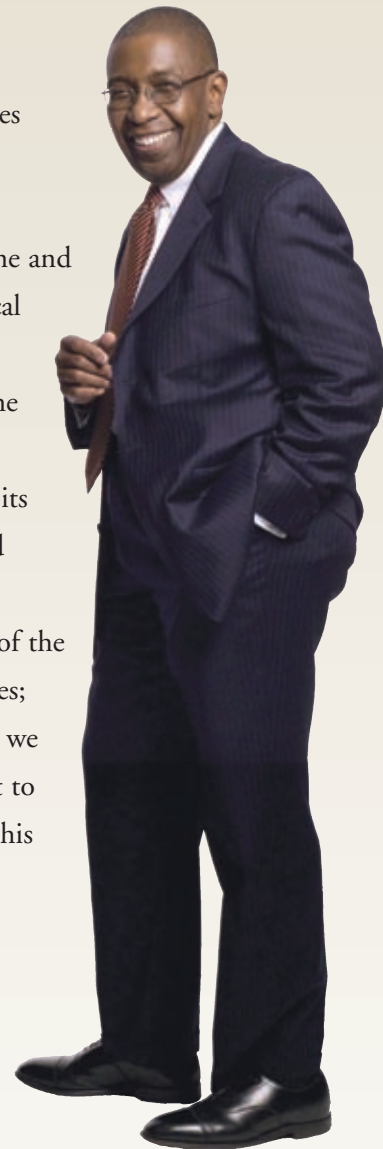
At last year’s White Coat Ceremony, we were honored to have a handful of esteemed members of the Class of 1960—including Drs. Joseph Boyle; Joel Cannilla; Theodore DaCosta, Sr.; Marjorie Jones; Maurice Meyers; Angela Salanitro and David Snead—join us in welcoming the Class of 2013. As we prepare for the 50th anniversary celebration of the Class of 1960, we hope more of you will see fit to attend the festivities (see page 33 for more information) that are being planned in recognition of this auspicious occasion.

In health,



**Robert L. Johnson, MD, FAAP**

*The Sharon and Joseph L. Muscarelle Endowed Dean (Interim)*



## pulse

VOLUME 8 NUMBER 1 WINTER 2010

UNIVERSITY OF MEDICINE & DENTISTRY OF NEW JERSEY

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NEWARK, AUGUST 13, 2009

## When Students Put On That White Coat What Were They Thinking?



### Jennifer Hirsch

SPRINGFIELD, NJ • UNIVERSITY OF PENNSYLVANIA

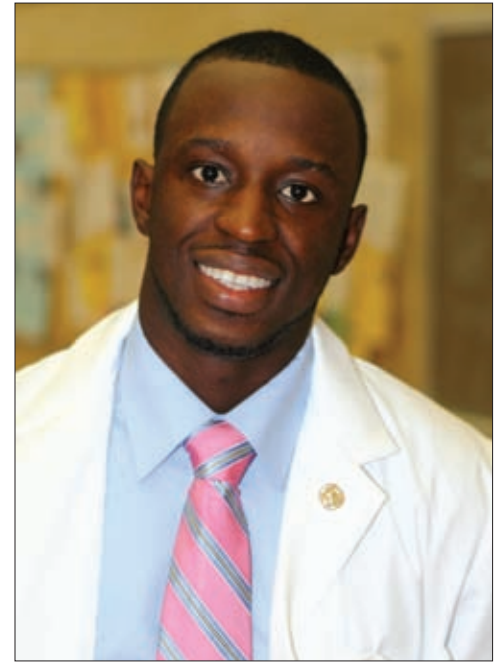
“My path to medical school was longer than the average student. After graduating from college in 2003, I spent three years working in currency trading, followed by two years of taking general premedical requirements. **My white coat ceremony represented the culmination of a long journey that led me to where I finally belong.** This ceremony reinforced what I already knew about NJMS: it is a community that fosters warmth and camaraderie,

emphasizes humanism in medicine, and provides students with unparalleled clinical training. I feel very grateful to have been inducted into the NJMS community.”

### Ryan Ramsook

DUMONT, NJ • NEW YORK UNIVERSITY

“As the white coat was placed on my shoulders, overwhelming feelings of excitement and fulfillment mixed with anxiety. A new beginning with its years of hard work was about to start. Family and friends beamed with pride, future professors handed out encouraging words, and current students offered insight. **We weren't alone on that first day of our journeys to become physicians nor will we be alone on this long and arduous path.** I could not help but remember the reasons and circumstances that blessed me with this opportunity to wear the white coat.”



### Ahmed Sesay

BELTSVILLE, MD • UNIVERSITY OF MARYLAND

“All week long, there had been a sense of fear brewing as we listened to countless experiences of those who had come before us. Then, in the waning hours of that orientation week, this fear was toppled by a sense of anticipation for the grand finale. For me, the white coat event was an open acceptance by people who have contributed to the advancement of mankind for centuries. As I approached the podium en route to be cloaked with the white coat amidst the cheers of family and friends, I could not help but notice our first transition as a class. At the beginning of the day, we were a band of students scared of what was to befall us and **now, we were student doctors empowered by the words of many and the actions of a community committed to producing the best doctors.**”



## A Storm of Stimulus Dollars

**L**IKE rainfall drenching arid soil, a record \$15 million in research dollars is pouring into the hands of NJMS researchers. The funding comes from a \$5 billion research allotment to the National Institutes of Health (NIH) announced in March by the Obama Administration as part of the stimulus package. Soon after the announcement, and with little time to spare, determined administrators and faculty worked day and night to compile an astounding 201 funding applications ahead of tight deadlines.

Their efforts paid off handsomely. As of December, NJMS has come out a clear winner, receiving more grant dollars—one-fifth more—than any other research institution in New Jersey. Overall, the educational research community received the bulk of 184 NIH recovery grants awarded in the state. Of these, 87 were awarded to UMDNJ-sponsored research projects, including 41 programs at NJMS.

“Over the last several years, research funding has been stagnant and paylines have tightened,” says Gwen Mahon, PhD, assistant dean for research administration. Faculty and research staff eagerly worked with Mahon, director of the Office of Research and Sponsored Programs (ORSP). Between March—when the stimulus announcement was made—and the NIH’s Sept. 30 fiscal year end, 201 proposals seeking \$173 million in funding were submitted. “It was a huge effort,” explains Mahon.

The \$15 million awarded this year will pay for an abundance of programs, including projects on cancer, infectious and cardiovascular diseases, and neuroscience disorders. Several unfunded multi-million dollar grants got “outstanding” NIH marks and hopefully will be up for awards this spring. ●

## NJMS News by the Numbers

### 5

Newark high school students enrolled in the Public Health Research Institute’s summer high school research internship program, win first-place ribbons during the Seton Hall University poster competition in September 2009.



### 41

NIH awards totaling more than \$15 million are received by NJMS faculty.

### 15

Faculty named “Most Influential Doctors” by *USA TODAY*.

### 11

Boxes of toiletries are delivered to Covenant House in Newark by Students for Health Resources and Education (SHARE) in September. Check out SHARE’s blog at [njmsshare.blogspot.com](http://njmsshare.blogspot.com).



### 4

Grants worth more than \$12 million for molecular diagnostic research go to David Alland, MD, chief, Division of Infectious Disease, and assistant dean of clinical research.

### \$3,336

Donated to the Autism Center by Whole Foods Market, West Orange.

### 138

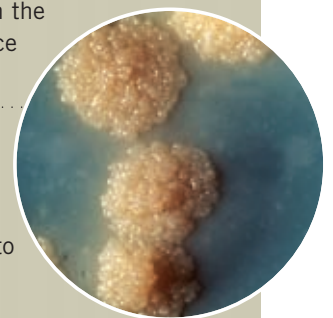
Physicians make Castle Connolly’s 2009 list of “Top Doctors in New Jersey.”

### 220

High school students enroll in the Pre-Medical Honors Program in the fall. Of those, 30 spots are funded through a Centers of Excellence grant from the U.S. Department of Health and Human Services.

### \$4.4

Million in a 10-year contract awarded to the Global Tuberculosis Institute by the U.S. Department of Health and Human Services to continue clinical trials, TB prevention and treatment.





Joseph Rondinelli, MBA

## His Lifelong Learning Mission

**J**OSEPH Rondinelli, MBA, knows a thing or two about missions.

The former U.S. Air Force Reserve captain spent years as a pilot flying transport missions throughout the world three to five days a month until his retirement in 1991.

These days, Rondinelli is on a new mission: to bring training programs and workshops to the NJMS administrative staff.

At a time when workers are being asked to do more with less, Rondinelli wants to ensure that his fellow administrators have the skills to take on added responsibilities effectively so they—and their units—can shine. As Director of Administration and Professional Development, the Philadelphia native believes that learning is a lifelong process.

This is a belief Rondinelli personally puts into practice. He pursued his MBA at LaSalle University while flying for the Air Force and working as the director of clinical laboratories at Hahnemann University School of Medicine. He has always attended conferences and workshops honing his skills

and acquiring new ones.

Rondinelli was recruited to NJMS in 1994 to become the administrator for the Department of Pathology and Laboratory Medicine. Chair Stanley Cohen, MD, had been his boss at Hahnemann. A few years later, Rondinelli's role had grown.

"When David Roe, our chief financial officer and associate dean, came to NJMS, there was a real emphasis put on training," Rondinelli explains. As a result, he volunteered to shepherd along training programs for the administrative staff, bringing to this new task his infectious energy and enthusiasm. In 2008, he organized a two-day conference at UMDNJ-Robert Wood Johnson Medical School where more than 100 attendees from all UMDNJ campuses received certifications in grant management.

Later that same year, he officially took on the title of director of administration and professional development while maintaining his old responsibilities in the Department of Pathology and Laboratory Medicine. This past year, Rondinelli, and Mia Morse, MBA, in the finance department, arranged prep sessions in Microsoft Excel, Access and PowerPoint and conducted monthly brown

bag luncheons for administrators to meet and talk business.

"Mia and I are a team," Rondinelli says. His biggest undertaking has been a quest to have a staff member from each of the 21 academic departments become a Certified Registered Administrator (CRA). For certification, test-takers must pass a 250-question exam by the Research Administrators Certification Council. To do this, Rondinelli has organized test-preparation courses on the Newark campus with weekly study sessions run by Morse. So far, six department administrators have achieved CRA status.

"The staff and faculty are our most important assets," Roe says. "By helping to train administrators, Joe is contributing not only to the school, but also to the development of these individuals' careers."

Rondinelli not only has big plans at work. His daughter, Amanda Jo, enlisted in the Air Force as chief public health officer after receiving her Master's in Public Health from San Diego State University—making her the fifth family member to serve in that branch. But in true Rondinelli-fashion, he pushes for more. "I expect her to get a PhD," Rondinelli adds with a grin. ●

## Oh What a Night

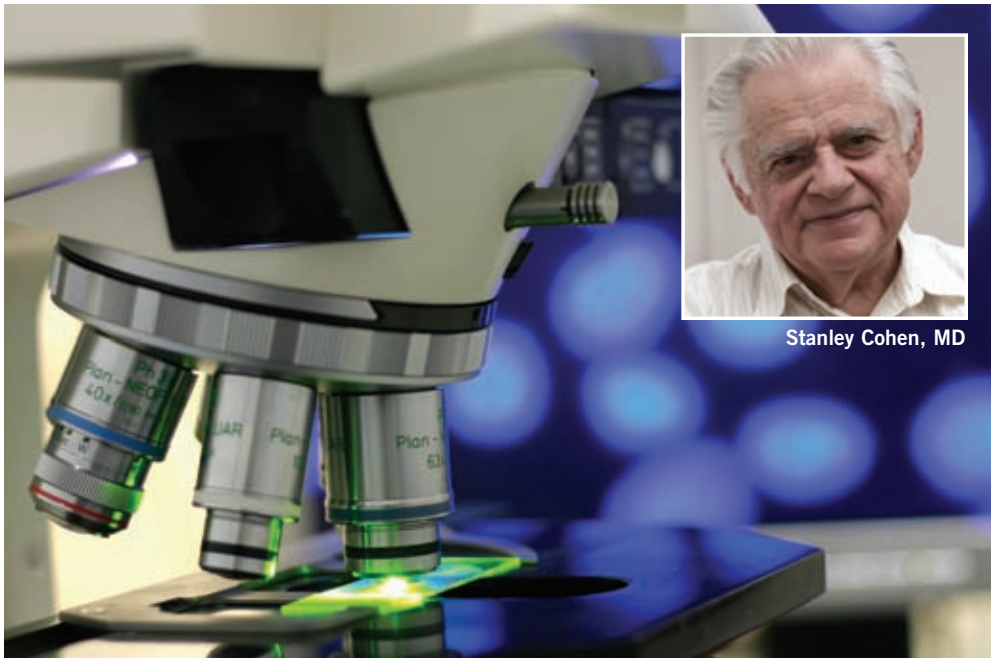
Early November, back in 2009...

**F**OR the fans of Frankie Valli attending "Musical Moments for MS" on Nov. 4, this play on the lyrics of one of his hits will bring back memories of the evening's performance by the famous falsetto.

Organized by benefactors Lee and Murray Kushner, this annual event perennially brings out the stars and guests to raise money for multiple sclerosis (MS) research. Past performers have included Smokey Robinson, Gladys Knight and Bette Midler. This year, 2000 attendees, a sold-out crowd, raised more than a million dollars to support MS initiatives including the Neurological Institute of New Jersey at NJMS.

Valli, a Newark native and Rock and Roll Hall of Famer, is the well-known front man of The Four Seasons whose hits included "Sherry," "Big Girls Don't Cry," "Walk Like a Man" and, of course, "December 1963 (Oh What a Night)." The band is currently the subject of the Tony®- and Grammy®-award winning Broadway musical, *Jersey Boys*.





Stanley Cohen, MD

## Cohen Keeps On Going and Going...

**S**TANLEY Cohen, MD, chair of Pathology and Laboratory Medicine, is at a stage in his career where most professionals start thinking about slowing down, taking up a hobby, perhaps even retiring. Instead, as he reaches the zenith of his career, Cohen's schedule is more packed than ever.

This year he became president of the American Society for Investigative Pathology (ASIP), one of the largest and most prestigious professional societies for academic pathologists. He says that it's a role that will bring him out of his lab and onto the global stage to advocate for the nascent field of biophysical pathology. This relatively new area of pathological medicine combines pathology and radiology and is viewed by some practitioners as the next major advance in diagnostic medicine. Cohen plans to focus much of his ASIP presidency on moving the field forward, beginning with a major symposium in April.

Biophysical pathology puts emphasis on an individual's response to disease rather than attempting a "one size fits all" prognosis

and treatment plan. Because the field employs digital imaging from radiology in combination with basic cell biology, he believes it can provide more accurate diagnoses for many diseases and determine individualized treatments. "Right now we can tell what kind of cancer someone has, but we can't make long-term projections about the effects this cancer will have on one person as compared to another person, or whether we should offer a different treatment to one person as opposed to another. The diagnostics we have are still very primitive," he explains.

In his "spare" time, Cohen is under contract to write a book on experimental biology. His packed agenda also includes delivering a major lecture at the University of California at Davis; co-chairing the research committee of the Association of Pathology Chairs, and serving as treasurer of the Federation of American Societies for Experimental Biology (FASEB). He's also just stepped down from a challenge grant decision-making committee for the National Institutes of Health.

Fishing trips and leisurely travel will just have to wait. Says Cohen, "Now that I'm approaching retirement, I've decided to get involved in global issues rather than just working in the lab." ●

## KUDOS

**STEVE LEVISON, PHD**, professor, neuroscience, and director of the Laboratory for Regenerative Neurobiology, became editor-in-chief of the journal *Developmental Neuroscience* as well as president of the American Society for Neurochemistry.

**DIANNE PULTE, MD**, assistant professor, medicine, published a study in the November print issue of *CANCER* which notes significant advances in the treatment of 15- to 24-year-olds with blood-related cancers.

**DAVID L. ROE, MBA**, chief financial officer and associate dean, was elected national chair of the Association of American Medical Colleges' group on business affairs.

**VICE DEAN MARIA SOTO-GREENE, MD**, received the Minority Access 2009 Role Model Award at the 10th National Role Models Conference.

Third-year student **SAMUEL CHU '10** was elected president of the NJMS Student Council. **MARTIN GROSS '10**, is vice president; **RAVI VERMA '11**, treasurer; and **RYAN CHADHA '11**, secretary.

**NAKUL RAYKAR '10** chairs the UMDNJ Student Senate. NJMS students in this group also include: **DHANASHRI MISKIN, YURI JADOTTE, LEE FLOWERS, AHMED MELEIS, SAMUEL CHU** and **RAVIRAJ PATEL**.

**PETER RODRIGUEZ**, assistant director, operations and finance, comparative medicine resources, won Facility Manager of the Year Award from the American Association for Laboratory Animal Science in New Jersey.

**LLOYD WEBSTER '11** won a Herbert W. Nickens Medical Student Scholarship Award during the Association of American Medical Colleges' conference in November.

## F.Y.I. GSBS On Campus, Have You Met...

Walid Aboshahba, Murugabaskar Balan, Manuela Buonanno, Krista D. Buono, Lisa Canto, Sarah Darmon, Karim Helmy, Justyna Korczeniewska, Amanda Lee, Shyam A. Patel, Lauren Rota, Raghavendra Shamanna, Rivka Stone, Ahmet Tunceroglu, Alok Upadhyay, Jennifer Bain, and Lisong Yang?



Andrew P. Thomas, PhD

Perhaps you should. Featured on the **Graduate School of Biomedical Sciences (GSBS)** at NJMS website, these young researchers are just a few of the almost 500 current GSBS grad students on the Newark campus. Spread throughout the departments and divisions of the medical school, they take advanced courses and research training, and are often the life blood of our most productive research labs.

Want to know more about stem cell research? Ask **Krista Buono** who is the president of the Stem Cell Education Society.

Interested in RNA? Talk to **Karim Helmy** who was a Howard Hughes research scholar and also worked for Genentech, a major biotechnology company.

**Manuela Buonanno's** background might be considered off earthly charts because she won first place in NASA's 19th Annual Space Radiation Investigators' Workshop and worked at Brookhaven National Laboratory in New York.

On their way to earning a range of graduate degrees, including PhD, MD/PhD, MS, MBS and MS/MBA, GSBS scholars are on multi-faceted career paths which will lead them into academics, education, science writing and the pharmaceutical/biotech world, as well as medical and dental schools. According to **Andrew P. Thomas, PhD**, Senior Associate Dean of GSBS at NJMS, the campus divisions of GSBS were reorganized to facilitate a closer relationship with the medical schools on their respective UMDNJ campuses. This led to the formation of GSBS at NJMS in 2008, continuing the traditions and missions of the school that was founded in Newark in 1969.

Some 200 graduate faculty, mostly drawn from NJMS departments, teach and train this "community of biomedical scientists," says Thomas. GSBS at NJMS offers more than 150 courses, ranging from cell and molecular biology, stem cells, neuroscience, biomedical engineering and pharmacology, to the business of science. And, students also take advantage of classes at nearby Rutgers-Newark and New Jersey Institute of Technology (NJIT). "Biology is, and will continue to be, the dominant science of this century. We are poised not only to understand the complexities that make us what we are, but to use this information in making unprecedented discoveries to treat and cure human disease," explains Henry Brezenoff, PhD, former GSBS dean.

**Sarah Darmon** would certainly agree. Working in Carol Lutz's lab—program director, Department of Biochemistry and Molecular Biology—Darmon, who ran a drug metabolism study while an intern at Wyeth Pharmaceuticals, says, "The moment you analyze your data and discover that your experiment worked, it's exhilarating." For more information, email: gsbsnadm@umdnj.edu.

## Knit-A-Square



**A**n estimated 11.6 million babies are orphaned in sub-Saharan Africa and 1.4 million of them live in South Africa. These numbers inspired Dhanu Miskin, fourth-year NJMS student, to bring Knit-A-Square to UMDNJ. This charity sends knitted blankets to abandoned children and AIDS orphans. Miskin invited donors to knit or crochet one or more 8" x 8" squares. These small squares soon join others to create colorful, homemade blankets.

"The entire concept of Knit-A-Square seemed ideal for medical students. It's a community service project that requires little time, commitment or money, but makes a big difference in the lives of cold, abandoned children," explains Miskin, who first heard about the charity from her mother. "There were numerous websites promoting various charity projects, but once I found the [www.knit-a-square.com](http://www.knit-a-square.com) website, I was drawn to its simplicity." Miskin's promotion has now been recognized in many media outlets including WMBC-TV, a local news station. Miskin says, "My mother taught me how to knit and instilled in me the incredible value of helping others."

Miskin's drop-off box for the squares was in the Student Affairs office until Dec. 23. Touched by the students' efforts, Alice Owen, wife of UMDNJ President William F. Owen, Jr. MD, has helped to get more drop-off boxes distributed across all UMDNJ campuses.

"I received more than 50 squares from an anonymous person in the School of Health Related Professions as well as a \$268 grant from the NJMS Alumni Association towards postage for shipment," notes Miskin. "I am extremely grateful." ●





Associate Professor Robert Wieder, MD, PhD, pictured with, from left, Karen J. Jackson, regulatory compliance coordinator; Tracie K. Saunders, manager of the MB-CCOP and the director of Outpatient Oncology Services; and Yasmeen S. Barber, clinical research coordinator.

## To Find a Cancer Trial for Everyone

“**A**ll current cancer treatments are derived from patients who participate in clinical trials. It is especially critical that we have an ethnically balanced representation on trials because the effect of treatments may vary among different populations,” explains Robert Wieder, MD, PhD, NJMS associate professor, medicine.

“Disparities in cancer care can only be overcome if minorities have access to the same state-of-the-art clinical trials as the rest of the population.” Yet, he adds, “a very small percentage of cancer patients—roughly 4 percent, according to the National Cancer Institute (NCI)—participate in

clinical trials. And minorities account for less than half that rate.”

In August 2009, Wieder, a physician, scientist, oncologist and director of the Cancer Center’s Clinical Research Office, received an NCI grant to improve those rates. The \$1.85 million was given to University Hospital Cancer Center’s Clinical Research Office whose patient base is more than 60 percent minority. The funding also establishes the Cancer Center as an NCI-designated Minority-Based Community Clinical Oncology Program (MB-CCOP), placing it among an exclusive group of national facilities which focus on bringing cancer research

to minority populations.

As one of 14 MB-CCOPs in the nation—and the only one in New Jersey—Wieder’s program emphasizes treatment, prevention and clinical trials. Its primary goals are to expand clinical research in minority communities; to bring state-of-the-art treatment, prevention and trials to minorities; and to increase the involvement of primary healthcare providers and other specialists in cancer prevention and control studies.

The NCI grant was the second financial windfall Wieder received last summer. He also won \$476,000 from the New Jersey Commission on Cancer Research (NJCCR). That grant, in fact, was the only clinical research NJCCR award for combating health disparities.

Many barriers stop minorities from participation in clinical trials, says Wieder. Social, financial and educational issues as well as suspicion of the medical system and past abuses stop them. “Cancer is not the greatest challenge for many of these patients,” adds Wieder. Among the tools his office uses to enroll more minority individuals are patient navigators. (See “Heavenly Navigation,” page 40.)

Wieder credits his employees for the program’s success: Karen J. Jackson, regulatory compliance coordinator; Tracie K. Saunders, manager of the MB-CCOP and the director of Outpatient Oncology Services; and Yasmeen S. Barber, clinical research coordinator.

“The aim here is to ensure that there is a clinical trial for everyone,” Wieder says, “regardless of the type or stage of the cancer.” ●

*Section compiled and written by Genevieve Morris, Joni Scanlon, Tiffany L. Smith and Aleksandra Nadolski*

# A CLOSER LOOK AT DR. TAILBONE



Patrick Foye, MD

How **Patrick Foye** became a world's leading expert in coccydynia and why his patients, who come from near and far, love him so much both online and in person. **BY MARY ANN LITTELL**

**W**HEN asked to identify his niche area of expertise, Patrick Foye, MD, doesn't hesitate: "The tailbone," he says. Holding an anatomic model, he points to the bone at the spine's base. "Even though the tailbone is tiny—smaller than a pinky finger—pain in this area can severely compromise quality of life."

Foye, as director of the Coccyx Pain Service at NJMS, is committed to relieving pain and improving function and quality of life for patients with coccydynia (pain in the coccyx), which has a variety of causes, including trauma, arthritis and childbirth. "We treat sprains, strains, fractures, dislocations, sports injuries and more," he says.

"It's an area that most people, including doctors, don't know about. It's not covered in depth in medical school."

An NJMS alum (class of 1992), Foye became interested in coccydynia more than a decade ago when a few patients came to him for help. "I didn't know much about it, so I started doing research and found a real lack of information," he says. "There hadn't been much published, particularly on non-surgical therapies. And surgical treatment—removal of the coccyx—has a fairly high rate of complications."

A consummate learner, he researched the topic intensively, reading hundreds of articles on the subject. Over time, he became an

authority. "I began lecturing at conferences, publishing articles and educating our own students," says Foye, who is also an associate professor of physical medicine and rehabilitation (PM&R). "More and more patients with tailbone pain were coming here, so three years ago, our chair, Dr. Joel DeLisa, officially classified this as a formal service at NJMS. We're probably the only academic institution in the country with a dedicated coccyx pain service." Foye treats other disorders as well, including low back pain, herniated discs, arthritis, joint pain and nerve injuries.

Foye's patients come from throughout the U.S. and as far away as Canada, Greece and India for treatment they can't find elsewhere. "Sometimes it takes them awhile to locate us," he says. "One patient was actually annoyed about it. He said, 'I suffered with this for years before finding you. Why the heck don't you get yourself a website?'" Foye took his advice, and now has two websites: TailboneDoctor.com and DoctorFoye.com. "Google tailbone doctor and you'll find me," he says.

Initially Foye's websites were fairly basic, linking to journal articles and including some of his own writing. "Patients needed an authoritative site about tailbone pain, but doctors were interested too," he says. "Physicians email me from other parts of the country and from other countries with questions. What types of MRIs should they order for patients? How do they read X-rays of the coccyx? Why is the coccyx at risk during childbirth? I've tried to answer all these questions and more in a language that everyone can understand."

Over time, he's added "bells and whistles" to the sites, inspired in part by his 8-year-old son. "He has his own website, creates video games and posts them so his cousins in Chicago can play them," says Foye. "Frankly, looking at his website, I was a little envious. My site didn't have any of that cool stuff. So I made a few videos and posted them. They cover diagnosis, treatment, X-rays and MRIs, and other topics, all in lay language. The videos are also available on YouTube."

Foye describes his efforts as "a 'mom and

pop' operation—just me in my basement with a video camera and some anatomic models. If I had the time, I'd make a dozen more videos. It's a great way to get a message across."

Coccydynia can be difficult to diagnose and it's often missed on X-rays of the area, which are traditionally taken while patients are standing. "Years ago I came across a French study comparing the effectiveness of sitting vs. standing X-rays," says Foye. "Sitting X-rays are a much more effective diagnostic tool, but sitting is not a standard view. When patients ask for sitting X-rays, many technicians say there's no such thing. That's not true. So part of my educational mission is educating radiology technicians to take sitting X-rays for this condition."

According to Foye, patients with coccydynia are often advised by their physicians to live with the pain because there are no treatments other than surgical removal. "There are many effective non-surgical treatments, including certain types of injections," he explains. "Under fluoroscopic guidance we can place an anti-inflammatory agent directly at the site that is causing the pain. Or we can administer a local anesthetic nerve block using lidocaine to numb the nerves carrying the pain signals. In some cases, we do what's called ablation, where we essentially kill the nerves that are carrying those pain signals."

Other therapies include certain types of wedge cushions to sit on to alleviate pressure to the coccyx. "Sometimes it takes the right combination of treatments to relieve the pain," says Foye.

This year Foye became a member of UMDNJ's Stuart D. Cook, MD, Master Educators' Guild, "probably the biggest thrill of my professional life," he says.

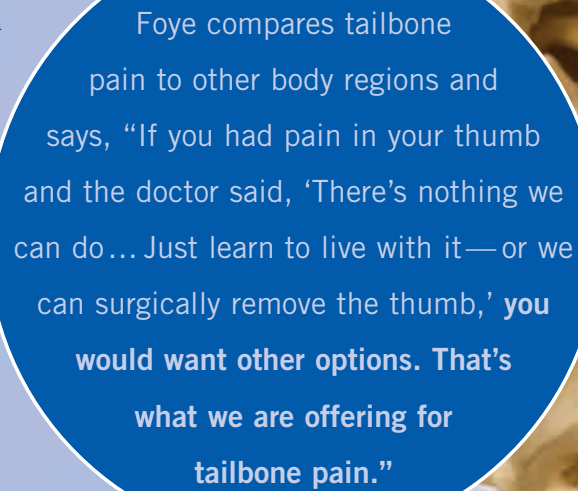
In addition to teaching medical students and residents, he is director of the PM&R clerkship (mandatory for fourth-year students) and co-directs the PM&R Pain/Spine fellowship program, which has three fellows.

He estimates he's given more than 700 lectures to thousands of students and physicians over the years. His commitment to education goes way beyond the classroom,

with his latest, most dynamic teaching tool being the Internet. "In addition to my websites, I use email as an educational medium. I maintain email groups, and when I learn something new that I think may interest others, I'll fire it off in an email."

Foye has received other honors, including the UMDNJ Foundation's Excellence in Teaching Award in 2002. This year the American Academy of Physical Medicine and Rehabilitation gave him its "Distinguished Clinician Award," one of only three PM&R physicians across the country to be honored. In addition to his clinical and teaching activities, he's principal investigator of an Institutional Review Board-approved study of hundreds of patients with tailbone pain. The study, a retrospective chart review of patients, analyzes demographics, cause of injury, diagnostic tests and effectiveness of treatments. "It's exciting, because most of the prior studies are reports from doctors who have treated only 10 or 12 patients."

He compares tailbone pain to other body regions and says, "If you had pain in your thumb and the doctor said, 'There's nothing we can do. I won't order any tests, prescribe anything or refer you. Just learn to live with it—or we can surgically remove the thumb,' you would want other options. That's what we're offering for tailbone pain. Most people who come here find significant relief from their symptoms. It's incredibly gratifying to be able to help improve quality of life. I absolutely love my job." ●



Foye compares tailbone pain to other body regions and says, "If you had pain in your thumb and the doctor said, 'There's nothing we can do... Just learn to live with it—or we can surgically remove the thumb,' you would want other options. That's what we are offering for tailbone pain."

## A CLOSER LOOK AT MR. FIX-IT



Bernie Sarrel

**Bernie Sarrel** is the man on campus who plans, manages, and fixes anything and everything. **BY MARY ANN LITTELL**

**A**s director of Planning and Management Services at NJMS, Bernie Sarrel oversees the day-to-day operations of most of the buildings on the Newark campus. So what exactly does he do? Ask him and he laughs good-naturedly. “No two days are alike,” he says. Employees come to him for help if their offices are too hot or too cold, if they need room for new equipment, even if the roof is leaking. They call if they want

to move people or when their departments demand extra space.

And some requests are more unusual, says Sarrel. Recently, an employee complained about bedbugs in the workplace. “She spotted a bedbug on her colleague and wanted me to do something,” he states. “So we brought in an exterminator.” Another incident involved parking—a “hot button” on the Newark campus. “Someone sent me a

dozen photographs of holes in the Norfolk Street parking deck,” he says. “He was right—they were pretty big. So we’ll get them fixed. It’s like I said: Every day is different.”

Sarrel knows the Newark campus like the back of his hand—as well he should. He’s been here 37 years. Originally from Rockaway, Queens, he grew up in Green Point, Brooklyn. “Both of those places are on the water,” he says. “That’s why I’m a beach person.” He graduated from Columbia University and also holds a Master’s degree in hospital administration from Cornell. Before going to work, he served in the Peace Corps and spent two years in central Africa providing services for tuberculosis. When he returned to New York, he worked first in administration at St. Vincent’s Hospital, and then at the New York City Health and Hospitals Corporation. “My boss there was a gentleman named Stanley Bergen,” he says, referring to the former UMDNJ president. “He brought me to New Jersey.”

Sarrel started at UMDNJ [then called the College of Medicine and Dentistry of New Jersey (CMDNJ)] in July 1971. “I’d never been to Newark before,” he recalls. “The first event I attended was the groundbreaking for the main facilities on the Newark campus. There wasn’t much here, just a construction site.” He held a variety of administrative positions at the University before becoming Director of Planning and Facilities Management at NJMS in 1978.

Since then, Sarrel has seen the Newark campus expand in every direction. With the help of his team (Noreen Gomez, program assistant, and Judith Baginski, project coordinator), he oversees several facilities, including the Medical Science Building, the International Center for Public Health, parts of the Administrative Complex Buildings, the Doctors Office Center, the UMDNJ-New Jersey Medical School/University Hospital Cancer Center and the Ambulatory Care Center. “We make sure the buildings are maintained properly and inspected regularly,” he says. “Utilities, ventilation, tele-

phone installation and maintenance also come under our jurisdiction. I don't supervise the people who fix things and keep the place running, but I work with their supervisors to be sure everything is done."

Sarrel also manages the space in these buildings to accommodate new activities and programs. "Probably half of my time is spent supporting the work of our researchers, who are very important to us. Because our research has increased, I'm often called in to find ways to improve and expand their facilities. A new piece of equipment may need additional electrical power or a new water supply. Special lighting, heating or cooling systems might be needed. There are always problems to solve."

Some of these problems are small, persistent...and furry. Sarrel admits to an "occasional problem with mice in some of our buildings. It used to be much worse, when we had construction going on. Yes, we sometimes have housekeeping issues, but overall, our people do a good job, particularly in this economy, when everyone is expected to do more with less."

Sarrel's family has ties to the University as well. His son worked at NJMS for several years, doing research on pediatric AIDS and TB. His daughter obtained a Doctor of Physical Therapy (DPT) degree from UMDNJ's School of Health Related Professions and works as a physical therapist in the Maplewood school system. Sarrel lives

in Millburn, but spends as much time as he can on Long Beach Island, NJ, at his home on the bay. "I'm still a beach person at heart," he says. "I've been on the beach all my life, except for the two years I was in the Peace Corps. I have a small sailboat, and I'm on the water all the time. My wife and daughter play tennis, and we're big supporters of the Long Beach Island Arts Foundation."

Sarrel says he has no immediate plans to retire, and notes that as much as he's given to the university, it's given him back more. "I know a few people who have worked here longer than I have, but not many," he says. "I like this place, I like the people, and I like the work I do." ●

## A CLOSER LOOK INSIDE THE MS PUZZLE

Two medications were used for multiple sclerosis but which one was better at limiting the formation of "black holes" in the brain? **BY JILL SPOTZ**

**A** **PIECE** of the complex puzzle of multiple sclerosis (MS) has been solved by researchers at NJMS. Led by Stuart D. Cook, MD, professor of neurology, a research team discovered that one MS medication, Betaseron (interferon beta-1b), is more effective than Copaxone (glatiramer acetate), in limiting the formation of chronic "black holes," or lesions, in the brain caused by this elusive disease.

The BECOME trial (Betaseron vs. Copaxone in MS with Triple Dose Gadolinium and 3-T MRI Endpoints) is a continuation of other research which involved these same two FDA-approved drugs. Cook explains, "We were interested in utilizing a very sensitive MRI technology. The 3-Tesla MRI could provide clearer images and along with the use of additional contrast material, gadolinium, offer better visualization." The BECOME trial was the first and largest trial to rely on this sensitive

MRI technology and compare the two drugs. Cook's findings were published online in the *Journal of Neurology, Neurosurgery & Psychiatry* last August.

Results surprised even the researchers. When patients, who were randomly assigned to the two groups, received Betaseron, 9.8 percent of their new lesions converted to chronic black holes—with duration beyond a year. For the Copaxone group, this conversion rate was 15.2 percent, meaning that Betaseron might play a stronger protective role in the brain tissue of MS patients. "This was unexpected," explains Cook. "Data on Copaxone suggested that the medication had a protective effect which had not been demonstrated for Betaseron. But, in our study it was the other way around. We also learned that MRI lesions are common. Regardless of which drug the patient was taking, 80 percent still had active MRI lesions, despite being on protective drugs."



Because 75 patients were being closely monitored each month, the study allowed Cook and fellow investigators Diego Cadavid, MD, assistant professor, neurosciences, and Leo Wolansky, MD, professor, neuroradiology, to learn more about the natural history of lesions and black holes. In the progression of active MS, inflammation occurs and the blood brain barrier breaks down. Founding chair of the Department of Neurosciences, Cook served as President of the UMDNJ from 1998 through 2004. He says, "Although we learned a lot about the effectiveness of medications and the natural history of MS lesions, we have a tremendous amount of material to cover." ●

# A CLOSER LOOK INSIDE MIRROR THERAPY

For chronic conditions like phantom pain from an amputated limb, stroke complications, peripheral nerve damage, or loss of range of motion from arthritis, try a little mirror visual feedback magic.

BY MARYANN BRINLEY



**P**OSITION yourself facing the side edge of the tall free-standing mirror in B 403 at University Hospital (UH) in the Physical Medicine and Rehabilitation Department. Stretch one arm out in front of the mirror. Raise your other arm to the same height but to the back of the mirror. Shift your body a little to one side so that your gaze can focus on the reflection of your outstretched arm in the mirror. You'll be angled so that you can't completely see what the other arm around the back is doing.

"Start moving your arms and hands. Just try it," suggests Eric Altschuler, MD, PhD. "You'll be surprised."

You flex the fingers on both hands... pretend to be a conductor...open and close your fists...make small circles with your hands. Then, something really strange starts happening. For most people, the brain is quickly being tricked into thinking that the limb you see moving in the mirror is the same as the one out of sight.

"Weird."

Why do all this? Because tricking the body and brain using mirror visual feedback (MVF) has become one treatment option for some chronic disorders that have long been regarded as intractable such as phantom pain from an amputated limb, hemiparesis from a stroke, complex regional pain, paresthesias (unusual or unexplained tingling, prickling or burning sensations on the skin), peripheral nerve damage or the loss of range of motion after a musculoskeletal injury or from arthritis. With MVF training over time, the "normal" vision of the reflection in the mirror of a healthy hand or limb is apparently able to override the aberrant sensory input in the brain from an injured hand or even missing arm...to the point



Eric Altschuler, MD, PhD

where the person is no longer as disabled or troubled by symptoms.

Countless generations of medical students have been taught that physical and neurological functions are localized, hardwired and that damage is usually permanent, Altschuler reports. "But a paradigm shift is now underway in neurology with an increasing rejection of the classical dogma." Studies show evidence for strong inter-sensory interactions as well as the plasticity of the brain. "Neurological dysfunction, at least in some instances, may be caused not so much by irreversible destruction but by a functional shift in equilibrium. If so, perhaps the equilibrium point can be shifted back to its normal state by hitting a 'reset button' using relatively simple, non-invasive procedures." Even the paralysis after a stroke which had been thought to result from "irreversible" brain damage may involve some form of "learned paralysis" that can be unlearned. For instance, if the signals being sent to your brain keep saying that your arm won't move, then it learns not to move. But if you suddenly see it moving again in the mirror—even though the action is based on visual trickery—unlearning, even rewiring the brain around damaged areas, can begin. According to Altschuler and his fellow researchers, this is all part of the new view of brain function.

Altschuler, an NJMS associate professor

of physical medicine and rehabilitation, began exploring this science of visual feedback when he was working with V.S. Ramachandran, MD, at the Center for Brain and Cognition, University of California in San Diego. “Our first patient was seen in 1993,” Altschuler and Ramachandran reported in a review article published just last summer in the journal, *Brain*. For 11 years, this patient had experienced vivid, excruciating pain in a phantom arm and hand that had been amputated above his elbow. It took just weeks of practice with the mirror, 10 minutes a day, for the man to start mentally “moving” his missing arm, after which the pain and a chronic itch began to disappear. “Connections in the adult human brain” appear to be “extraordinarily malleable,” Altschuler observes. “Can this malleability be exploited clinically?”

A host of subsequent studies were inspired by this team’s early findings—“utilizing visual feedback conveyed through mirrors, virtual reality, to some extent, even through intense visualization,” the authors report. “The procedure is not a miracle cure by any means but could be of enormous value.”

On this quest for more information, Altschuler has treated patients at UH with MVF. Take the 39-year-old woman who had slipped and fallen on the ice on a cold February day, for example. She fractured the large bone, the radius, at her left wrist. After the bone was pushed into proper alignment, she was in a cast for seven weeks. But the fracture wouldn’t heal so in early April, she underwent a bone graft and the arm went back into a cast until mid-May. Stiff and in pain from her fingers to her left shoulder, she lost the ability to flex or extend the wrist. Even with physiotherapy sessions, her passive extension only increased slightly. So in early June, she started a combination of mirror therapy and electrical stimulation two to three times a week. She also began an at-home mirror training regimen and by mid-August, she reported essentially normal hand and wrist capabilities. ●

## What’s in the STARS

**Science in the Cinema—STARS (Students, Teachers and Research Scientists)—is a unique distance learning program for high school students. Participant Polly Thomas, MD, associate professor, NJMS Department of Preventive Medicine and Community Health, talks about it.**

### ***What does STARS offer students?***

In this interactive film and lecture series, students view a movie, documentary or film clip with a scientific or medical theme as a starting point for discussions about science. The clips prompt students to consider ethical and moral issues in science and medicine. Then they interact with a researcher or scientist and ask questions. Many get excited about careers in science and healthcare. And of course, they’re introduced to NJMS, UMDNJ and the value of a healthcare education. So it covers a lot of bases.

### ***Describe your participation.***

As a public health epidemiologist and pediatrician, I’ve been involved with the program for about a year, featuring a documentary titled “Superbugs.” Other NJMS faculty who have participated include Drs. Peter Wenger, Lisa Dever and Emanuel Goldman.

### ***How and why does this program use technology?***

STARS began a few years ago as a live program run by the NIH. Held on weekends in one location, it was difficult for students to attend. Matthew Conforth, director of educational technology at Passaic Valley High School, decided to use videoconferencing to enable students and researchers to interact without having to travel anywhere, and allow many schools to participate. After the film, we ‘meet’ via videoconferencing. I’m always amazed at the students’ sophistication. Not only do they ask about careers, but also about microbiology, chemistry, and the science behind drug development.

### ***What topics and movies have been featured?***

Peter Wenger uses a documentary titled “The Pandemic of 1918,” and talks about infectious diseases. Other topics range from genetics to cellular biology. Students have also watched “Jurassic Park,” “Lorenzo’s Oil” and “2001—A Space Odyssey.”

### ***What’s in the future?***

According to Matt Conforth, the program continues to grow, reaching more students in New Jersey and elsewhere. Kids as far away as Pennsylvania, Kentucky and Georgia are tuning in. —MARY ANN LITTELL

*Note: Science in the Cinema, sponsored by the New Jersey Association for Biomedical Research, won a prestigious 2009 Magna Award from the American School Board Journal. UMDNJ faculty who are interested in becoming “Science Superstars” may contact Matthew Conforth at [pvmconforth@yahoo.com](mailto:pvmconforth@yahoo.com).*

# NJMS PEOPLE DO YOU KNOW?

Steven Marcus, MD



STEVEN MARCUS

## From **Blue Kids** and **Botulism** to **Deadly Snapple** and **Blowfish**

NJMS's very own *Dr. House* has solved enough complicated, dramatic medical cases to write a book. How does he do it? By thinking outside the box and asking the kind of endless questions that have earned him the adjective, "obnoxious," just like his television twin.

BY MARYANN BRINLEY

**T**ELEVISION may have its fictional Dr. House, but NJMS can boast the real thing. For the past 40 years, Steven Marcus, MD, executive director of the New Jersey Poison Information and Education System (NJPIES) at UMDNJ-NJMS, has been the kind of medical toxicologist who rolls up his sleeves and races to bedsides to solve complicated medical cases that would make amazing TV drama. From his diagnosis of the 49 blue kids in a Passaic grammar school, to the cases of the botched botulism injections, the Snapple laced with automotive anti-freeze, the teenagers smoking glowing liquid from a highway exit sign, and the diners poisoned by Atlantic blowfish, Marcus has been at the center of countless, puzzling medical scenarios.

At the end of one long day, Marcus had traced the blue skin color and sudden illness that struck nearly 50 children in a Catholic elementary school to chicken soup that had been watered down inadvertently with a boiler system anti-corrosive agent by a nun. He remembers it well. "I spent 12 hours on the case, driving from hospital to hospital." Even the local media had begun dogging him for interviews. "One television reporter filmed me in my red ski parka getting into my bomb of a car in the parking lot at St. Joe's Hospital. It was hilarious. I saw myself on TV later but I just wanted to get home that night.

"I grew up reading Dick Tracy, Superman and all the super heroes," recalls this professor in the Department of Preventive Medicine and Community Health. The book, which later became his virtual bible, was actually on his required reading list at the Medical College of Virginia back in 1963. "Berton Roueche's *Eleven Blue Men*, later released as *The Medical Detectives*, presents the stories of medical sleuths, the real *CSIs*," he insists, grabbing it right off the shelf in his office.

"The Latin phrase may be 'carpe diem' but," for Marcus to make sense of some of the more bizarre and fascinating experiences in his life, "it should really be 'carpe momento,' or seize the moment," he admits.



“If you miss the moment, you miss the chance of a lifetime, the moment others may suffer or even perish.”

So when the American College of Medical Toxicology (ACMT) selected the 2009 recipient of its Matthew J. Ellenhorn Award for extraordinary contributions to the field of medical detective work, it was no surprise that Marcus set a record for the number of nominations by his peers all across the country. When the ACMT newsletter announced him as the winner last summer, one member, William Robertson, MD, wrote, “Dr. Marcus makes his presence known to everyone...in a rather forceful way. He adds a liveliness and sense of wonderment and the result is that everyone really pays attention. Bring on a new challenge and he will be there to join in the fray.”

In September when he accepted the prize in San Antonio, TX, Marcus spoke long, passionately and personally about his craft.

Receiving the Ellenhorn award, in fact, had actually set him on a “quest to determine if there was a teachable moment in ‘how I do it.’” As he looked back on his successes—including the establishment of our regional poison control center, a feat that required the passage of legislation—this expert unearthed several golden rules he’s lived and worked by.

In viewing any complicated, unsolved medical case, he tries to “think out of the box,” questioning both himself and everyone at every turn about what is known. “That is how I learn,” he explains. “People say I’m obnoxious,” he’s been heard to admit. In the initial contact with a patient or problem, he’s also willing to “go the extra mile” and to be as persistent as his hero Sam Adams, who once stated, “It does not require a majority to prevail, but rather an irate, tireless minority keen to set brushfires in people’s minds.” His success may also be

rooted in his Jewish heritage because by religious tradition, “we seem to be taught to argue and debate.” His mother, in fact, drove him nuts by responding to his questions with other questions, making him look things up, requiring that he make decisions based on facts or consideration of facts.

All these talking points or teachable moments, however, came to mind after he first tried to turn down the award. “‘You have to be kidding,’ was my first reaction when they called to inform me about it,” he says. “What I’ve done all my life is apply other people’s innovations.” But while it took the man who is always so outspoken, keeping others on their toes, several weeks to put his thoughts in order before that September event, he certainly had something to say. “No one in the past has ever said that Steve Marcus was at a loss for words. I just really never thought I would receive such an honor.” ●

## MINNIE PRESLEY

# The Woman Behind The Farmers’ Market

BY ALEXANDRA NADOLSKI

**T**WELVE years after retiring from her job in New York, Minnie Presley, President of the University Hospital (UH) Auxiliary, has no plans to stop working. “I love what I do here and it keeps me going,” affirms Presley. She is the driving force behind the auxiliary, which is responsible for providing charitable help to the hospital. “When a playroom in pediatrics needs renovations or strollers, the directors of the department can ask for our help,” explains Presley, who has also been the bridge between the auxiliary and the surrounding Newark community for almost three decades.

“A wonderful example is the farmer’s market on campus this past summer,” explains Nancy Bedell, RN, MBA, Director of Care Coordination at UH. “The farmer’s market was initiated because of Ms. Presley’s perseverance and desire to give back to the employees and the local community.” This success has been her biggest adventure. “It took us almost a year to get going, but it was so worth it because the community really enjoyed it,” says Presley, “People were able to see that we are here for them.”

Presley has always been involved in the medical community. She spent 30 years working for the city of New York as a medical surgical technician in the Intensive Care Unit (ICU) at Lincoln Hospital. She moved to Newark when she was 19 and has been enthusiastically involved in community affairs. Her efforts were recognized by councilman B.F. Johnson of Newark’s Central Ward, who first recommended her for the Board of Concerned Citizens (BCC), an advisory group of community leaders, local residents, and UMDNJ affiliated individuals.



Minnie Presley

Organized in 1971, the BCC connects Newark and UMDNJ. Through her involvement with the BCC, Presley learned of the auxiliary. “I am not planning to stop working because this is me,” explains Presley, “It makes me feel good every morning.” ●

# NJMS PEOPLE DO YOU KNOW?

BARBARA FADEM

## Nurturing Students and...Sheep!

BY MARY ANN LITTELL



As a scientist, teacher and author, Barbara Fadem, PhD, is about as firmly rooted in academia as you can be. In her 29 years at NJMS she's spent a lifetime nurturing students.

In her spare time, Fadem and her husband nurture a different species—Jacob sheep—on their six-acre farm in central New Jersey. “These beautiful spotted sheep are wonderful animals,” she enthuses, calling up a photo on her office computer. “We breed and sell them and also sell their fleece, which is very popular with hand spinners.”

The dual life Fadem leads certainly suits her. “Being on the farm is idyllic but I love my work,” she says. This gifted teacher came to NJMS fresh out of graduate school. A native New Yorker, she married young and had three children before finishing college. She attended Brookdale Community College from 1971 through 1972 before transferring to Kean University (then Newark State). She received her undergraduate degree in 1975, and after a brief stint as a high school science teacher in Roselle, returned to graduate school.

“I wanted to know more about some of the things I'd learned in college, so a professor suggested grad school,” she recalls. “I went to Rutgers, where I got a master's and a PhD in zoology. My area of interest was biological rhythms. At Rutgers, I got a teaching assistant position and it paid my tuition. I love being around young people and it turns out I'm pretty good at teaching, too.”

She worked for a short time at Rutgers Medical School (now UMDNJ-Robert Wood Johnson Medical School) until a friend directed her attention to a *New York Times* ad for a psychiatry instructor at

NJMS. “At this point I was a single mom,” she says. “Getting my first job here was providence. I've had such wonderful opportunities. I can't imagine working anywhere else.”

At NJMS, Fadem taught several psychiatry classes and conducted research on sex and the brain in animals, garnering grants from the National Institutes of Health and the National Science Foundation. She became tenured in 1987 and remarried a year later, around the same time she wrote her first book. “It's an interesting story,” she comments. “A book salesman tried to sell us a book for the first-year psychiatry course. When I commented that it wasn't very good, he agreed and said there were no good books for first-year students. Half-jokingly I said, ‘Well, maybe I'll write one.’” And she did. “Behavioral Science,” published in 1990, was an immediate success and is currently in its fifth edition. She's gone on to produce six more books on behavioral science and psychiatry, a few co-authored with Steven Simring, MD, formerly at NJMS and now at Columbia University.

Fadem's days are busy. She is co-director (with Allan Siegel, PhD, professor of neurosciences and psychiatry) of “Mind, Brain and Behavior,” a course combining neuroscience and psychiatry. She also serves on the admissions committee, evaluating applicants. “Our students are wonderful, the best and the brightest,” says this professor in the NJMS Department of Psychiatry. This fall, she was inducted into UMDNJ's Master Educators' Guild, “a great thrill and honor.”



Barbara Fadem, PhD

In 2006, her oldest child Jennifer passed away suddenly. “I wanted to do something useful in her memory,” says Fadem, so she and her family endowed the Jennifer Fadem Kerr Memorial Scholarship through the NJMS Alumni Association. Endowed scholarships begin with a minimum \$25,000 gift. Thus far, four students have received the scholarship. “I'm glad to give back to the University that gave me so much.”

Outside the classroom, the sheep beckon. “Right now we have 10 females,” she explains. “We had more, probably 20 a few months back, but sold some of the lambs. The sheep are bred each year and have their babies in April. Usually we have twins, but this year we also had two sets of triplets. I can't tell you how much fun this is.”

Approaching her 30-year anniversary at NJMS, Fadem doesn't give much thought to retirement. “Every day at work I'm spending time with the finest people,” she says. “But do I plan to be here when I'm 80? Absolutely not! I have sheep to raise.” ●

## PERSONALLY SPEAKING

# The Kind of Doctor I Want To Be

BY AMANDA GANZA

FROM the time I took my first science class, I knew I wanted to be a doctor when I grew up. I had always been at the top of my class and science came easily so becoming a physician was a logical career choice. Studying medicine would provide me with intellectual stimulation, prestige, financial stability and the opportunity to help people. I wanted that title of “Dr.” in front of my name. However, right before I headed off to college—I was in the class of 2009 at The College of New Jersey—something happened that changed my pursuit of medicine from a logical choice into a passion. This life-changing event gave new meaning to my ambition.

In August 2005, I was diagnosed with factor V Leiden, a hereditary blood coagu-

lation disorder. Naturally, I was terrified of what effect this diagnosis would have on my life, and asked the hematologist to explain exactly what was wrong. He brushed aside my concerns, rationalizing that since I was a young, healthy, active woman and family members with this diagnosis had shown no factor V Leiden complications, I had nothing to worry about until I got older and wanted to have children. To rush me out of his office, the hematologist told me that the symptoms of complications from the disorder were not important.

Apparently, he was wrong. I left the doctor’s office that day feeling curious and uninformed so I promptly began to explore every available resource for information concerning my condition. I spent hours scouring factor V Leiden websites, looking for possible complications and their symptoms, as well as any established or developing treatments. Little did I know that I would utilize this research less than two weeks later.

On the morning of August 8, 2005, I was sitting on my couch typing an e-mail when I suddenly started having trouble breathing. Every time I breathed in, I felt pain in the middle of my chest. I sat for a little while, hoping it would go away. Then, still not getting enough oxygen, I tried to take a deep breath and the pain was so excruciating that I screamed.

At that moment, I knew something was truly wrong, so I had my grandmother and aunt drive me to the emergency

room. The ER doctor prematurely concluded that I had pulled a muscle and tried to discharge me with a prescription for pain-killers. Something deep inside me knew that this wasn’t the truth, that he was wrong. I remembered everything I had read about factor V Leiden and knew that what I was experiencing was no pulled muscle.

I insisted that my symptoms were indicative of a pulmonary embolism and finally convinced this reluctant ER doctor to order a CT-scan. My self-diagnosis proved to be correct and the scan revealed a large clot in my lower right lung. I was immediately admitted to the hospital, where doctors could monitor my response to oxygen and anticoagulation therapy. Later that night, my hematologist told me that I was lucky to be alive. If the clot had gone undetected, it could have killed me.

As scary as this experience was, it changed my appreciation for life as well as my views on the practice of medicine. That “logical” career choice instantly became a personal passion. The fact that my own medical knowledge probably saved my life made me a proponent of the well-informed patient, which I believe is essential for effective patient-centered care. Furthermore, the hematologist and ER doctor who both brushed aside my concerns and opinions served as prime examples of the type of doctor I do NOT want to become. Their arrogance and disregard could have led to my death.

Perhaps the greatest insight I gained was from this window into the lives of my future patients. I know what it’s like to be the patient sitting in that hospital bed, on the receiving end of bad news. This makes me want to enrich as many lives as I possibly can and to have the high degree of empathy every good doctor always needs.

*For more information about factor V Leiden, visit <http://fvleiden.org>.*



Amanda Ganza '13

Portraits of Patients: Lives We Have Changed



Christina Bowden with her son  
Connor and NJMS trauma surgeon  
Ziad Sifri, MD



# TRUE GRIT

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By Maryann Brinley

Portrait by Andrew Hanenberg

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To put yourself in Christina Bowden's place is to be inside an Academy-award-winning drama about survival and strength—the kind that sets you on edge, thinking, “What's next?” This optimistic, gutsy 35-year-old mother's life has taken far too many medical twists and downturns since Dec. 14, 2005.

After two overseas deployments as a U.S. Naval intelligence officer with VAQ-130 Flight Squadron, and Navy SEAL teams in 2000 and 2001, this California girl landed in what seemed like a safer stateside spot to work. Her husband, Jonathon, whom she met in the Navy and married in December 2001, is a dentist practicing with his father in Flemington, NJ. Out of the military, the couple imagined their future in a quieter zone, that place called happily ever after. In August 2003, they moved from Coronado, CA, to Pennington, NJ, and in 2004, Christina started working for the government.

Then, four years ago, when she was eight months pregnant, Christina was struck by a vehicle in Newark. Describing that day now, all she can say, after a pause, is “Errrrrhrrr. Let's see. Where should I begin?” The cadence of her voice is slow and steady, with willful determination. Christina works hard to say what she means and to be where she is today. Her intelligence and wit are fierce. “I struck my head, or so they tell me.” Of course, she—the conscious Christina Bowden—wasn't there. She was in a coma, struggling to return to life.

“To keep her alive as she slipped into a coma,” the UMDNJ-University Hospital paramedics, who had raced to the scene of the accident, “intubated her immediately, right there in the field,” explains NJMS trauma surgeon Ziad Sifri, MD. “This means they placed a breathing tube through her vocal cords to breathe for her and prevent her from aspirating any fluids down into her lungs,” Sifri explains. “Her level of consciousness was very low when the paramedics got to her. This, in the setting of a closed head injury means she was in bad shape.” On the Glasgow Coma Scale (GCS) which scores injured



## ON CHRISTINA'S TEAM OF HEALERS

(Left) Jonathan Fellus, MD, NJMS neurologist at Kessler Institute for Rehabilitation Medicine

(Below) UH nurses in the Surgical Intensive Care Unit (SICU): Michelle N. Addie, RN, BSN, LaVern Allen, RN, BSN, Luz M. Meneses, RN, BSN, MA, Eloisa Laudato-Hufalar, RN, BSN, and Michelle Haynes-Mintz, RN



patients on a range from 3 to 15—anything less than 8 means the patient is in a coma—she would be classified a 6, he says.

In the UH emergency room, multi-disciplinary trauma teams moved fast. “Her pupils were sluggish but still reactive,” Sifri recalls. “She had obvious facial lacerations and abrasion” but her “pelvis was stable” with no obvious injury, which was important both for her and her unborn baby. Every minute counted because “the longer someone remains in shock, the more likely the person will die or suffer major complications. The same goes for the baby. This is one of the challenges of trauma,” Sifri explains, “to be able to work with different surgeons and specialists at the same time without interference, communication errors, or wasted time, while physically caring for the patient on many levels.” He led the primary trauma team. “Perfect timing, so that you can achieve the optimum outcome for the patient with the least complications, is so important.”

After seeing her X-rays, Sifri rushed her to a CT scanner to check for bleeding inside her head. “On the CT of the head, she had an obvious skull fracture and multiple bleeds within different areas of her brain,” he says. “She also had midline shifts and evidence of herniation, which means the brain had started to swell and was actually

pushing its way out of the skull, which is very dangerous and can be life-threatening.” Sifri consulted with a neurosurgeon.

“At this point, three teams were simultaneously taking care of her,” he recalls. The neurosurgeon focused on her brain swelling and was putting in an intra-cranial monitor, called an ICP monitor, to measure the pressure around her brain. The obstetrics-gynecology (OB-GYN) team was concentrating on her placenta which had actually ruptured. “This fetus was viable with a good heart rate that we could see on the ultrasound. Given Christina’s critical condition,” Sifri says, there was a serious potential threat to the unborn baby. “Interestingly—and this is something we teach our medical students—fetal distress is one of the earliest signs of shock in a pregnant woman. The fetus is very sensitive to shock and hemorrhage in the mother.” The team didn’t want to wait until the baby’s life was compromised and decided to deliver him immediately.

When she speaks about this day to her 4-year-old son, Christina makes Connor an integral part of the story. “We were in that accident together. Today, he is totally healthy and super-smart.” Delivered in an emergency C-section later that day, Dec. 14, 2005, by Guy D. Murphy, MD, an NJMS assistant professor, Connor was four pounds, fifteen ounces, and remained nameless for weeks. His Apgar score was low, and he was intubated before being taken to the Neonatal Intensive Care Unit (NICU) where he “was the biggest baby for weeks.”

For days in the Surgical Intensive Care Unit (SICU), Christina was treated for her brain injury and respiratory failure, and she remained on a ventilator. Friends would gather by her door with tears and fears tangible. By Dec. 29, she was stable enough to be moved out of the SICU to a lower level of care but, Sifri says, “her level of consciousness was still low and of concern.” Her condition might best be described using “that laymen’s expression. You know, ‘The lights were on but there was nobody home.’” That would eventually change.

But Christina was there deep inside. She acknowledges, “The brain is so remarkable. Jon tells me that on January 1, after a priest blessed me with spiritual water that a co-worker gave him, the nurses placed Connor on my chest. I started to wake up a little. I sensed that people were with me in the hospital room. Jon says that family, doctors, and nurses were all in my room crying.”

Christina also explains, “Jon told me that the baby couldn’t be discharged from the hospital until we named him—something he hadn’t wanted to do without my input. So, by my bed, he asked me to squeeze his hand for a sign of ‘yes,’ when he said the name I wanted.”

“Robert William?”

No.

“Connor William?”

“I squeezed yes for Connor William,” she says.

Upon her arrival at Kessler East on Jan. 6, 2006, Jonathan Fellus, MD, Christina’s neurologist, describes her as “barely responsive.” His job was to wake her up and bring her back to conscious living. He began by adjusting certain medications to keep her medically stable and to control her pain level. Fellus also wanted to “set the stage for

the neurological stability upon which I could regulate her sleep-wake cycles and give her more energy.” With every traumatic brain injury patient, Fellus, an assistant clinical professor at NJMS, takes an individual patient’s personality and behavior patterns into consideration.

“As Christina became more awake and alert, it was like a chess match,” Fellus recalls. “Not checkers, where you move one step ahead. But, chess, where you have to think three, four, five moves ahead using certain interventions, changing medications, and anticipating each stage of recovery.” Her Kessler rehabilitation team—including Sherry Higgins, CT (Cognitive Therapy), Elizabeth Salameh, PT (Physical Therapy), and Artrese Lyles, a nursing assistant, among many others—used every possible motivator to get her well again. “I had a lot of Ts,” Christina says laughing. “Occupational therapy, physical therapy, cognitive therapy, speech therapy...all the Ts. You name the T, I did the T.” For 46 days—eventually “I was crossing them off on a calendar”—Christina was as tough on her therapists as they were on her.

“I challenged myself all of the time. But, it’s crazy and frustrating waiting for your brain to catch up. Try to imagine starting life back at age 3. It’s easier the first time you have to learn how to eat, to walk, and to talk. The second time isn’t fun. Does that make sense?”

Fellus recalls, “I remember her family bringing Connor, her baby, in to visit.” Back at home, they had hired a nanny to help. “I wanted her to have those reality checks with her baby,” this neurologist explains. “I could see her degree of reaction and interaction with Connor. It helped us all reinforce what we were doing in therapy. We’d say, ‘You have to be able to take care of that baby.’”

Eventually weaned off the respirator, Christina’s freedom from a feeding tube took the finesse of Artrese Lyles, the nurse’s aide who would bring her a grilled cheese sandwich and Ensure, a nutritional supplement, every day. “That woman was remarkable,” Christina recalls lovingly.

At Kessler East, “I had to start back at the beginning,” she says. To describe her balance challenges, she uses this analogy: “My brain was like a buoy, constantly bobbing on a wavy sea.

“I went through so many phases and emotions...anger, anxiety, stress, and frustration. I wanted to be normal. I refused to be abnormal. I wanted to walk before Connor walked. I wanted to talk before Connor talked.” She wanted no part of the wheelchair, the walker, or the cane, which she referred to as her p.o.s. (piece of s!&t). “I didn’t want to curse. So I would say, ‘Where’s my p.o.s.?’ Thankfully, it’s collecting dust in our basement now,” she says proudly.

At the end of February 2006, Christina went home, where she spent the next year recovering. Now, she laughs about how volatile her emotions would run. “Jon didn’t know whether to come home after work carrying a baseball mitt and wearing protective gear, or to be ready to give me a hug. He is a rock. I love him so much.”

She went back to work part-time on Jan. 9, 2007, using a walker at first and later her p.o.s. When we met recently, this remarkable woman walked into our UMDNJ offices on her own, moving thoughtfully, with muscular tenacity, and very independently. “I’m so determined.

I’m elated by this aspect of myself. I just refuse to give up.”

If it weren’t for this positive mental attitude—she calls it her p.m.a.—the bad medical news she received in late July 2008 might have broken her spirit. “I was diagnosed with neuroendocrine cancer,” she explains. “Mid-July 2008, I had surgery. The oncologist removed my left ovary, left fallopian tube, appendix and 20 lymph nodes.

“Whoever said lightning doesn’t strike twice lied. After more tests, I was told I had multiple cancerous lesions in my liver, sternum, right femur, pelvis and spine. I reacted with a determined spirit.”

Fellus, whom she sees every six months, believes that the accident and the cancer are connected. There is a “lot of neural endocrine disruption after brain trauma and a body of literature which speaks to this. It is plausible for there to be an interaction between her brain trauma, what it unleashed on the body and the fact that this was a hormonally-based cancer. The poor little pituitary gland, locked at the base of her skull, connected by a narrow tube to the brain, stretched back and forth in that accident.” This master gland, connected to the hypothalamus, controls everything from growth, blood pressure, pregnancy, delivery, and thyroid function to temperature regulation.

In caring for patients with TBI, Fellus measures hormones routinely. As a pregnant TBI victim, Christina presented a very biochemically-complicated case. As trauma surgeon Sifri points out, “Estrogen and other female hormones protect against organ injury. So those hormones could also have helped her recover from injuries.”

Ten rounds of chemotherapy over nearly eight months left her feeling like a painful piece of “Swiss cheese with so many holes,” she admits. Yet, Christina approached the cancer battle thinking positively and from all directions. With her oncologist’s advice, Jon’s recommendations, and Fellus’ input, Christina adopted an organic diet. She started taking herbal supplements, scheduled acupuncture and other alternative healer appointments, and sought support from her family, friends, and co-workers. She also set up a personalized website with <http://www.caringbridge.org>, where she posts her progress and appointments and can receive inspiration from her site’s guest book. “I had to have a positive way to direct my energy.”

Recent CT scans show that the cancer has almost disappeared. “I have two liver tumors left: 1.7 cm lesion and a 9 mm lesion.”

Jon keeps saying, “The fight isn’t over until the fat lady sings.” Christina assures him, “She’s not singing yet. But, don’t worry, she will. She’s humming.”

Ziad Sifri, who races from trauma to trauma nearly every day of his working life, doesn’t often get the chance to read the happy ending to the stories in which he co-stars. In fact, physicians are actually prevented by law from inquiring about patients they have treated, unless the patient makes direct contact. So he smiled when he learned, four years after this disaster, that this particular patient had “regained a full, meaningful life. I am always nervous when I get someone with severe brain injury because we are not always sure who is going to recover. After all our time and effort, and all of Christina’s work and effort, this is very exhilarating to hear.” ●

[ Molecular Beacons: molecules that signal the presence of a target by fluorescence ]

# THE BRILLIANCE OF BEACONS

By Eve Jacobs

Fred Russell Kramer—and partners Sanjay Tyagi and Salvatore Marras—are men with a mission. They want you to understand something about science that most people just don't get. "It's like art," Kramer says. "It's about vision.

It's about seeing beyond the every day, coming together with a group and hashing out new ideas. It's definitely NOT about solitary pursuits in a stainless steel lab."

If you think visionary and basic laboratory researcher do not belong in the same sentence, then it's time to meet these scientists. Kramer is a big guy, born in Queens and raised in the Bronx, a product of the public school system, a math, then zoology, major at the University of Michigan, who returned to New York to earn his PhD at Rockefeller University, and then served on the faculty of Columbia University for 17 years before joining the Public Health Research Institute (PHRI). He came to New Jersey when PHRI moved to UMDNJ's Newark campus in 2002.

Kramer is a natural storyteller, tells his tales with gusto, describes his science artfully, knows how to woo his audience, but also knows

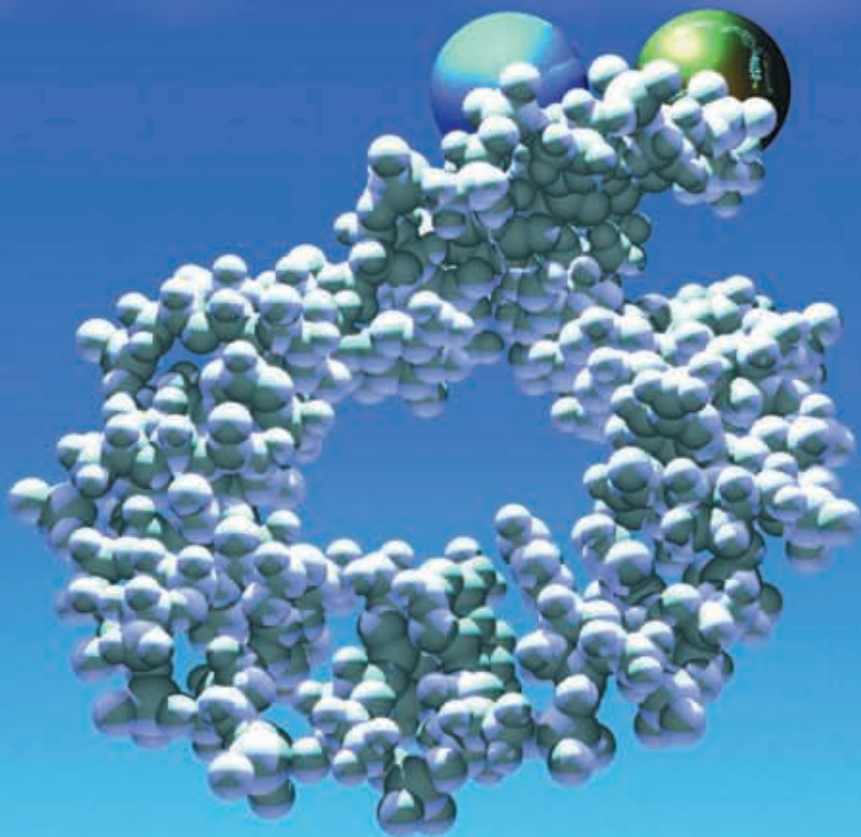
when to step back and let the team shine. He radiates pride in his—and their—accomplishments in basic molecular biology and nucleic acid structure, chief among them "molecular beacons" that have beamed their way around the world and back, lighting up the imaginations of researchers, generating numerous discoveries based on this work, and yielding practical applications that are golden.

Think rocky New England coastline. Think rough seas on a dark and stormy night. Think threatening waves tossing a big ship like a wood chip on the waters. Now think of a thin slice of light cracking the blackness open, pointing the way to safety. Next, translate that into science. That is the molecular beacon—the point of pride of this lab. And that was the image in Kramer's mind when he named this invention—the culmination of years of hard work in the early '90s.

What has made this research possible is grant money. "Getting



# IONS



grants is like theater. You have to do good science, but you also have to tell your story so that the people reading it [your grant application] like your story. PHRI researchers are good at getting grants.” (Suddenly, the import of Kramer’s storytelling mastery becomes obvious.)

He points out that attracting big money—in the form of grants and also royalties—earns scientists greater independence and the chance to try out new things. “Because we have a steady flow of royalties into our lab, we can take on more difficult projects,” he says. “To do something original, you have to take on things that are hard.”

Yet Kramer likens his lab to a “giant kindergarten,” where members spend their hours “building things out of tinker toys. There is no authoritarian structure here. We have different talents and skills. We work as close colleagues—it’s wonderful!”

Obviously the researcher’s “giant kindergarten” is way more than a playground. Kramer himself has been “hammering away” at nucleic acid structure and its role for more than 40 years. This lab has filed and been awarded a long string of patents; and molecular beacons technology has been licensed to 45 different companies and earned \$29 million, and is still on a roll.

There are now all kinds of applications of molecular beacon technology: diagnostic kits for HIV-1, the AIDS virus, accounting for about half the tests done worldwide; most of the polymerase chain reaction (PCR) tests done in North America for MRSA (methicillin-resistant *Staphylococcus aureus*), a dangerous, hard-to-battle bacterial infection; and detection of Group B *Streptococcus*, which Kramer says

infected, pregnant mothers can pass to their babies at birth, causing meningitis. (Two thousand newborns still die of meningitis in the U.S. each year, and many more are left deaf or blind.) Molecular beacon probes for this bacterium give an accurate, rapid reading prior to a baby’s delivery, enabling the mother to receive protective antibiotics that pass through the placenta, preventing infection.

Molecular beacon probes—all based upon the technological findings of this research group—are used to quickly diagnose a long list of infections, both bacterial and viral. But lest you think the scientific work leading to them was painless, know that Kramer and Tyagi have been rowing through those dark stormy waters together for 22 years. And that slim beacon of light was not always on their radar screen.

Kramer’s earlier research at Columbia University led to more recent work in molecular diagnostic assays. The goal was to find a way for a probe to “light up” a target gene only when the probe attaches to its intended target. “Years and years of work failed,” but Kramer and Tyagi pounded on. “Molecular beacons were born out of our frustration.”

Kramer’s science has everything to do with his instincts for choosing partners. Call it chemistry—the personal kind. Tyagi, he says, is idealistic, brilliant, persevering, and original—in other words, a partner he can work with and feel really proud of. “While working on his Master’s degree in India, Sanjay came up with a theory on the origin of protein synthesis that was published in the journal, *Origins of Life*, and remains valid today. He didn’t apply; he was invited to the PhD program at the University of Maryland,” Kramer says with great pride.

The third co-director, Salvatore Marras, is from the Netherlands and received his PhD from Leiden University. About 14 years ago, he came to New York on his vacation to visit a fellow-scientist friend who was doing postdoctoral work in Kramer’s lab, and lo and behold he fell in love with life here as well as in this lab. He returned home to wind things up, and quickly came back to the U.S. For 13 years, he’s been part of their nucleus, and he loves it. “Salvatore worked out the first test that demonstrated that molecular beacon probes can be designed to reliably distinguish genetic changes as small as a single nucleotide substitution,” says Kramer. “In these assays, the color of the fluorescence indicates which mutation is present, and the time that it takes for the colored signal to appear indicates the number of target molecules present in the original clinical sample. Our lab together is hugely more than the sum of our parts.”

High on the list of the group’s priorities is the mentoring of student-scientists, many from faraway countries, who come to learn about molecular beacons, and about working as part of such a team, and then move on to laboratories around the world, often to play leading roles there. “They keep in touch. It’s like a big extended family—



L to r: Salvatore Marras, PhD, assistant professor, microbiology and molecular genetics; Fred Russell Kramer, PhD, professor, microbiology and molecular genetics and associate director for technology transfer; Sanjay Tyagi, PhD, associate professor, medicine. All are co-directors of PHRI’s Laboratory of Molecular Genetics.

you know, the founder effect,” says Kramer. But the trio seems bonded by a chemistry both solid and fluid.

“How is science really done? Over coffee,” says Kramer, laughing as one of the student-scientists comes into the conference room to pour some coffee. “We have coffee together in the morning. We then do our experiments. Then we come together in the afternoon and talk over more coffee. Our science is people!”

For those, like me, whose familiarity with molecular beacons is minimal, Kramer points to their website, [molecular-beacons.org](http://molecular-beacons.org), where those working in this field have shared information since 1998. Marras is in charge of the site, a labor of love. There are many diverse applications for molecular beacons technology, and the website provides more than 500 downloadable papers authored by scientists around the world who are continually describing new applications.

The laboratory, meanwhile, is continuing to work on “the next best thing.” For Tyagi, research associate Diana Vargas-Gold, and the laboratory’s doctoral students, that means trying to “illuminate” (literally) a living cell’s most basic functions, lighting up primary gene products (messenger RNAs) as they are synthesized, and following their movements, processing, and localization. One goal is to observe the molecular changes that take place in living nerve cells as they are stimulated and form synapses with each other, in order to better understand memory and learning.

For Kramer, Marras, and their laboratory colleague Hiyam El Hajj, PhD, that means research on sepsis, or blood poisoning, which kills 200,000 people a year in the U.S. alone. When a blood sample is sent to a clinical lab, it usually takes days to identify the organism doing damage, Kramer explains. “So, the doctor treats the patient with a broad spectrum antibiotic that often turns things around—but not always. We are looking to identify the dangerous infectious organism within one hour.” The trick will be to “read” the unique temperature-dependent fluorescence pattern generated by the simultaneous use of a small number of differently colored, unusually long “sloppy” molecular beacon probes, he explains. It’s a major challenge—to say the least. However, they are obtaining promising results in collaboration with David Alland, MD, chief of the Division of Infectious Diseases at NJMS, and his research associate, Soumitesh Chakravorty, PhD.

“If these efforts succeed, the technique might be applied to other types of screening,” Kramer explains, “like colon cancer, for instance. We develop the techniques, and biotech companies can commercialize them.” The idea is to be able to simultaneously check for many kinds of cancer-causing mutations with just a single tissue sample. “This is an idea,” Kramer says, “a long-term goal. One of many directions we can take.

“Like artists,” he concludes, returning to his original theme, “every day we create new things and we try to do it well.” For anyone considering a career in the lab, a cup of coffee and a chat with this group might well be in order. Science, we all know, is hard work, but this laboratory’s brand of science shines with a fluorescence that just might woo you to take the plunge. ●

IN HIS OWN WORDS

## What’s a Molecular Beacon Probe, Anyway?

By Fred Russell Kramer



Molecular beacons are single-stranded oligonucleotide hybridization probes that form a stem-and-loop structure. The loop contains a probe sequence that is complementary to a target sequence, and the stem is formed by the annealing of complementary arm sequences that are located on either side of the probe sequence. A fluorophore is covalently linked to the end of one arm and a quencher is covalently linked to the end of the other arm. Molecular beacons do not fluoresce when they are free in solution. However, when they hybridize to a nucleic acid strand containing a target sequence, they undergo a conformational change that enables them to fluoresce brightly.

Molecular beacons have three key properties that enable the design of new and powerful diagnostic assays: 1) they only fluoresce when bound to their targets; 2) they can be labeled with a fluorophore of any desired color; and 3) they are so specific that they easily discriminate single-nucleotide polymorphisms. Now that a number of new and versatile spectrofluorometric thermal cyclers are available to clinical diagnostic and research laboratories, assays that simultaneously utilize as many as seven differently colored molecular beacons can be designed. This enables cost-efficient multiplex assays to be developed that identify which member of a panel of potential infectious agents is present in a clinical sample. Utilizing molecular beacons, assays can be developed that not only identify a causative infectious agent, they can simultaneously determine which antibiotics will be effective and which will be ineffective against the particular strain that is present. A panel of different genetic mutations responsible for the same disease can be identified in a single assay. And a single assay containing molecular beacons can screen an entire panel of single nucleotide polymorphisms (SNPs) that determine whether a particular drug will be effective for a particular individual. Thus, molecular beacons serve as new tools for increasing the effectiveness and lowering the cost of clinical diagnostic assays.

Asha Bale, MD  
At right: scenes from Ghana



# WITH A *Stroke* OF HER SCALPEL

*By Mary Ann D'Urso*



In surgery, you can have an immediate impact on a patient. That's the appeal for Asha Bale, MD, NJMS assistant professor. She treasures this ability to help and empower a patient with the stroke of her scalpel.

Sometimes her reward comes from the day to day work in the operating room at University Hospital (UH). Lately, she's been finding that sense of satisfaction as far away as Agona-Swedru, Ghana. "You can empower people in so many ways. I feel a passion for that," says Bale, who is chief of the Division of Minimally Invasive and Bariatric Surgery at NJMS. In Africa, for instance, even simple hernia surgery can make a big difference. She remembers one farmer in particular. "Putting someone back to work, back to being able to support his family and earn a living, how wonderful is that?" asks Bale.

Along with her NJMS colleague Ziad Sifri, MD, Bale has recently begun taking these humanitarian trips. She's helped to establish

International Surgical Health Initiatives (ISHI), a non-profit organization set up to sponsor the overseas, medical, goodwill trips. Their first one took her to Ghana in October 2008 and another NJMS-led trip sent a team to Guatemala in October 2009. ISHI members also routinely include a journalist and photographer so the group can draw media attention to the people and places in need.

In Africa, the volunteer group of about 15 UMDNJ employees included nurses, surgical residents and anesthesiologists as well as the doctors who performed 82 surgeries in less than two weeks. One farmer was so happy that he brought the team bananas and pineapples in gratitude for removing damaged tissue from his infected neck wound. Inguinal hernias make up about 90 percent of the operations in Ghana and some hernias are so large they protrude from the groin, extending almost all the way down to the knee. Procedures that would be routine in the U.S., on a gall bladder, for instance, or for a perfo-



MONEY + TIME + EFFORT =  
SATISFACTION

So what does it take to get a medical mission off the ground? We asked Frank Ciminello, MD, a plastic surgeon and Director of Craniofacial Surgery at NJMS, because of his organizing experiences on yearly expeditions to Colombia and Brazil. Fellow surgeon and NJMS Professor Mark Granick, MD, also weighed in on behind-the-scenes details because he heads to Mauritius, an island off the coast of Eastern Africa annually.

“You must have a team of surgeons, anesthesiologists, pediatricians and nurses, who can stop working for two weeks,” Ciminello explains. These volunteers must be willing to give up possible income at home in exchange for being “worked to the bone” on the trip. Funding is critical and costs aren’t always covered by donations. “You pay for some of it out of your pocket,” he admits. Supplies, donated or purchased, can be expensive. Granick says, “Last year, we brought over \$100,000 worth of supplies to Africa, all donated.” Organizations like Smile Train, which raises funds year round, can help. And, Ciminello has set up his own local charity in Colombia, called “With Hope,” run by residents in that country who support the mission.

A competent contingent of local healthcare providers, the “receiving team,” explains Ciminello, is also a key piece of this mission puzzle. They do the groundwork before arrival. And, “when you leave, you know there are people who can handle the postoperative care.” Ciminello keeps in touch with his cadre of local doctors and returns annually to the same locations so he can also monitor his patients’ progress.

The end result? Both Ciminello and Granick agree that the rewards are well worth their efforts. Says Granick, “Patients, governments and communities are so appreciative. It is very rewarding to be able to help people who have no other solutions.” —ALEKSANDRA NADOLSKI

rated ulcer, are anything but in some remote villages around the world. Treating the Mayans of San Juan Sacatpequez in South America on another trip, Bale and her team offered many natives a renewed chance at normal life.

“Some of us are in a position to make a real difference,” she admits, “through our work, our teaching or our humanitarian contributions.” What’s important, she believes, is for each of us is to find out just how we can make that difference. Bale, who had always wanted to go on these kinds of medical missions, never had the chance before.

Born in Oklahoma City, OK, to parents who emigrated in the 1960s from a village in Karnataka, outside of Bangalore, India’s Silicon Valley, she moved around a lot as a child. But a good many of her growing-up years were spent in Manhattan and New Jersey. After high school, she entered Boston University’s seven-year medical program and wanted to become an endocrinologist—until her very last rotation. That’s when she discovered surgery. “I wanted to cure diabetes,” she admits. Her uncle had died of diabetes-related complications so there was a personal connection. “I had never thought of becoming a general surgeon, but I really enjoyed that surgical rotation. I looked forward to coming into work.”

Drawn to NJMS because of its reputation for being female-friendly in the surgical department—50 percent of the surgeons are women—Bale did her residency on the Newark campus at UH. Then she went south to train in Louisiana for her specialty in minimally invasive and bariatric or gastric bypass surgery, which now makes up about a quarter of her practice. Patients love her. One of the benefits of gastric bypass surgery for Type II or non-insulin dependent diabetics, she explains, is that this dangerous condition disappears immediately after the procedure. The irony is not lost on this expert, who describes bariatric surgery as “an enjoyable operation. It’s technologically interesting and demanding.” It also brings her full circle and back to that med school dream of curing diabetes: she does it for her gastric bypass patients.

What she also likes about bariatric surgery is that “you can see the results.” She follows patients for three years after their operations and remembers one of her very first: a single mother who had been on disability, unable to work. Two years after the surgery, this woman married, finished school and became a respiratory therapist. Today, “She’s still maintaining her weight,” living the kind of happy ending that feeds Asha Bale’s passion for surgery. “How wonderful is that?” ●

*“Some of us are in a position to make a real difference,” Asha Bale admits, “through our work, our teaching or our humanitarian contributions.”*



Leila Mady '11, Alexandra Ward '12 and Nelson Chiu '12

“Good morning Vietnam” may have been the rallying cry in the movie starring actor Robin Williams but second-year NJMS student Alexandra Ward could easily have borrowed the expression last summer. She spent weeks working in this Southeast Asian country. Ward and others including Leila Mady and Nelson Chiu were among the many NJMS students who traveled overseas during their med school breaks on medical missions to three continents. Their experiences were priceless...learning what it truly means to be resourceful, how to treat patients with conditions they might never encounter in the U.S., and that there really is no place like home when it comes to healthcare. As Ward says, “After being in Vietnam, and seeing the poverty and lack of medicine, I now look at our own flawed healthcare system and know it could be much worse.”

Mady, in her third-year as an MD/PhD/MPH student, went to the Dominican Republic with the UMDNJ-School of Public Health’s Outreach Project, a program that was initiated in 2003 to offer hands-on, international public health exposure. One of almost a dozen UMDNJ students sent to socially and geographically-isolated areas there, Mady will never forget her 28 orphans. Her job was to help them find food, medical treatment and shelter. The trip was not what she expected. “You really had to be flexible and accept the fact that you didn’t always understand how things worked,” she explains. “It was hard.”

During Ward’s adventure with the Vietnam Medical Assistance Program, “We ran nine clinics that saw an average of 200 people per day, treating people with health issues that would have been fixed at birth in this country or when they first showed symptoms.” The program, started by two students at Johns Hopkins, pulled med students from New Jersey, Maryland, Georgia and Pennsylvania for the mission.

Second-year student Nelson Chiu traveled to Kampala, Uganda, to take part in a tuberculosis study initiated by NJMS faculty Edward Jones, MD, MS, and Kevin Fennelly, MD, MPH. “Technically, we were trying to weed out and treat the super-spreaders of TB,” explains Chiu. “These are the people particularly at risk who should be treated first in order to control the disease’s spread.” But, Chiu soon realized that scientific research would be a very small part of his African adventure. “Most of my time was spent doing clinical rounds at Mulago Hospital,” one of the largest hospitals in East Africa, where he did everything from caring for patients with HIV/AIDS to delivering babies. “Patients would become agitated that more couldn’t be done,” he recalls, “but with so few personnel and little resources, many people do fall through the cracks.” Yet, Africa surprised him. “I did not know that I would see so much hope and joy. Despite all their challenges, they are the nicest people I ever met.” — **ALEKSANDRA NADOLSKI**



Victor Mendez

# SPECIAL DELIVERIES

By Kaylyn Kendall Dines

When it comes to job responsibilities, Victor Mendez delivers. Once upon a time, as a messenger for the City of Newark, he visited Newark Emergency Medical Services to drop off a package. The result of that delivery was life-changing.

On that day, almost 30 years ago, he was invited to register for an Emergency Medical Technician (EMT) course at UMDNJ—University Hospital (UH). Three months later, he had completed a rigorous training course and resigned from his mail courier job. Mendez began working as an EMT, an unpredictable job where he rides in ambulances, helps people and, on occasion, delivers babies—almost more babies than he can count, in fact. His unofficial total is around 100 newborns who have come into the world through his hands.

According to Mendez, who has been an Emergency Medical Services (EMS) supervisor for the past 11 years, the dispatch center annually receives between 120,000 and 150,000 emergency calls related to motor vehicle, bicycle and skateboard accidents, burns, stabbings and shootings. That's about 300 calls every day. EMS provides basic life support service and advanced life support service to the greater Newark area including the Newark-Elizabeth seaport and Newark Liberty International Airport.

When asked about his delivery experiences, Mendez says, "When you respond, you don't know what you're going to get into until you are there: regular delivery, miscarriage, still-born, not breathing. You can't panic. You have to be calm." The majority of his "out-

side deliveries," the term used by the dispatcher to refer to babies born outside the hospital, took place when he was an EMT, a medic driver, and then a rescue specialist. Now as a supervisor, he is less likely to be out on day-to-day calls. His current role is more administrative unless there are special deliveries. As his career responsibilities changed, he ended the baby tally at about 90, but approximately eight more babies were born in his care after that. He's lost count. Approximately 2,000 babies are born at UH every year, explains Helene Dujardin, Director of Business Development at the hospital.

Mendez, a husband and father of three adult children, never dreamed of a career in healthcare. Years ago, he watched the television series *Rescue 911*, but didn't expect to be facing real life issues like the one he encountered during a shift in May 1981. This was just a few months after he started at UMDNJ and when he delivered his first baby.

When his unit responded to the call of a baby-on-the-way, Mendez remembers thinking, "Oh God, I hope she doesn't deliver right here. Oh God. I hope we can make it to the hospital." Realizing the birth was imminent, his thoughts turned to the lessons he learned during training. "When that baby comes out, you have to be so gentle because any movement could hurt the baby. I was nervous, very nervous. That first time, I was so nervous, because you put a lot of pressure on yourself holding the baby just right. You're not pulling. You're just guiding the baby's head, turning it a little bit."





In situations like that, Mendez explains, “You’re not going to put the mother in a chair or ask her to walk a couple steps or flights of stairs. If contractions are very close, you stay there and wait because the baby is coming really soon.”

That holds true, even if the expectant mother is in the back seat of a small car outside of the ER...which happened. Mendez had just transported a patient to the hospital and, he recalls, “My partner was doing the paperwork and I was doing the stretcher. You know, the guy with the stretcher goes back outside, cleans the ambulance, and gets the stretcher ready for the next call. So, I open the door of the hospital and this guy pulls up in a little Datsun. You know how small a Datsun used to be? It was a four door, but it was a small car. ‘My wife is having a baby. My wife is having a baby!’ he yells.”

Mendez walked to the backseat of the car where he found the mother laying sideways with the baby’s head completely out. “So, I’m holding the baby until somebody can come to help me because I couldn’t move. There was no room for me to move in that car. Just hold the baby there and make sure the baby’s airway is clear. Tough delivery, very difficult,” he remembers. “By the time help came outside from the hospital, the baby was completely out.”

Then, there are cases when the baby has been born before the EMS crew can arrive to transport the mother-to-be to UH. Keith McCabe, of UMDNJ’s Information Systems and Technologies, says, “In the last 12 months, EMS has responded and transported 488 women when our 9-1-1 call takers coded the assignment as ‘Imminent Delivery.’ We also had 26 calls where the caller stated the baby was already born and they required assistance.”

Mendez recalls another hair-raising experience that he’ll never forget. It took place on New Year’s Day about 10 years ago. He arrived at the

On occasion, Mendez, an EMT, delivers babies — almost more babies than he can count, in fact. His unofficial total is around 100.

house and a man pointed toward a bathroom door and walked away saying, “She’s in there.” Mendez entered the bathroom. There was no crying baby, only a woman on the commode.

“I looked inside the toilet bowl. The only thing I could see there was blood. There was nothing there, no baby, just blood. She had me scared, because I didn’t see a baby.” Back out in the hallway, as he helped the woman leave the bathroom, he heard a baby cry.

“Is there another baby in here?” he asked around. There were other people in the house who told him, “No, there isn’t any other baby.” It was then Mendez used the radio microphone on his shoulder to call the dispatcher and say, “I have a baby in the toilet bowl.” Going back into the bathroom, he slid his gloved-hands into the toilet and tried to gently rescue the newborn. When he could see the infant’s face, he cleared the airway, but the child was lodged in the toilet somehow. “What was holding the baby? Something was holding the baby, I can’t lift it up. It’s gotta be twins, it’s gotta be twins,” Mendez remembers thinking.

When he finally managed to pull the baby out, he saw a large tumor at the base of the skull attached to the head that had been the reason for her getting stuck. Later at the hospital, an ER physician removed the tumor, “sutured her up and that baby girl was sent home about four days later.” She was fine, and Mendez surmises, “She must be almost 10 years old now.”

Mendez, who is passionate about helping people, says, “Once you see that little infant come out,” he pauses and gently laughs, “It’s a very good feeling, a great feeling when you help deliver a baby.”

He also remembers the woman who walked up to him downtown near the Prudential Building and said, “Do you remember me?”

His response was, “Uh, no.”

She said, “You delivered my baby.”

“So, I said, ‘How’s the baby?’”

There was a mature, adolescent girl standing right next to this woman. “That’s the baby,” she said, pointing to the young lady.

“That’s the baby right there,” Mendez said, a little flabbergasted.

“Yes, 16 years old.”

“Now, that girl is even a few more years older of course,” says this special delivery expert. “Oh my, I’ve been doing this a long time.” ●



## In the Alumni Affairs Office



Dianne Mink

**I**N truth, Dianne Mink is the glue that helps to cement the legacy of NJMS to its graduates. A former business educator who once taught at Montclair High School, she runs the Alumni Association from a small office on the first floor of the Medical Science Building (B-504) almost single-handedly—with a little help from volunteers. Quietly, tenaciously, she keeps on turning that alumni affairs wheel from 8 am on weekdays and occasionally late nights and weekends.

“I love the variety, the mixed-up schedule, the fund-raisers, the events, the thank-you notes from scholarship winners, and developing relationships with so many talented, interesting individuals, both the students here now as well as the alumni I’ve gotten to know over the years,” she explains. In this multi-faceted position for 10 years this month, Mink was recently given the title of director. No two working days or nights are exactly alike, thanks to the students, faculty and alums streaming in and out of her office, and the demands of her job.

One of the most rewarding aspects for

her is getting to know students. “We have musicians, artists, and so many gifted individuals of all ages with such varied backgrounds. Some are older, more experienced. Some are very young. One wonderful young man in his third year of medical school is only 21.” When she needs a volunteer or two, or even six, they come running. “I emailed Neil Kaushal, Student Council programming chair, and the very next day I had six students willing to work at the fall scholarship dinner. They were wonderful.” She’s been leaning heavily on Kaushal as well as Ray Malapero, fundraising chair. But both

are examples of that old saying, “The more you do, the more you can do. They ran orientation week last summer just beautifully, for instance.” When this duo presented their Student Council update at a board meeting in October, they brought along a box of NJMS baseball caps. “It was great fun. Everyone got a cap,” Mink recalls.

On Mink’s schedule annually are four board meetings, executive committee gatherings including a Board of Trustees annual meeting every June. Alumni who attend actually enjoy themselves. “They kiss. They laugh. They hug,” she says. “You can see the congeniality.” They realize that being involved is well worth the effort. They tell her, “We are so glad we came.” She couldn’t do all this without Association President James M. Oleske, MD’71, MPH, and the backing of the Foundation of UMDNJ, which lends fundraising, technical, and digital support. “The internet, in fact, has definitely changed my job over the last decade,” Mink says. She can share information with the Foundation all the time, which maintains a database of alumni. And Google makes it possible to keep track of graduates as well.

From February Career Nights to spring reunions, Golden Apple dinners, white coat ceremonies, orientation activities, Board of Trustees meetings, lectures, phonathons, and fall scholarship awards dinners, Mink has been there, done that. Her calendar is packed. Take the four nights of phonathons, for an example of her frenetic but fun job. Mink invites 20 students, usually four different groups, to spend three evening hours calling alumni to ask for their updated contact and professional information as well as a donation to the scholarship fund. She pays them each \$35 but the kicker is the extra money they can earn by making the most calls or getting the largest number of pledges. “I order pizza, encourage them to be competitive, post their progress up on a board, and offer bonuses,” she explains laughing. “It’s hard to make these kinds of solicitation calls but many students get into it and some have actually made professional connections by chatting with the alumni on

the phone. Some find mentors in areas of medicine they might want to pursue.”

And, of course, the calls are for a good financial cause: scholarships awarded every fall. This is one of Mink's favorite events. “We awarded \$180,000 in scholarship funds this past fall and it was so satisfying” to give scholarships on the basis of academics, financial need and community service. There were 144 applications for aid this past year. Applications go out in April. Recipients are picked by a committee of faculty and alums in August and the dinner to celebrate the winners and thank the donors is held in October.

Alumni contributions also support the Student Council. For everything from tickets to a New Jersey Bears baseball game, barbecues, luncheons and receptions to the water bottles and pen lights for new students, Mink's office can make it happen.

To bring graduates back to an NJMS state of mind, there is always the annual spring reunion. “My challenge with alumni is getting them to come back and see what's going on here.” This year's event is scheduled for May 14–16 at the Sheraton

Parsippany Hotel and will honor both the first class of 1960 celebrating a 50th reunion as well as the 25th anniversary for the class of '85. If you have any doubts at all about whether or not to attend, email Dianne Mink at [minkda@umdnj.edu](mailto:minkda@umdnj.edu). She may just convince you to put those dates on your must-do list. Call 973-972-6864. ●



**At the Scholarship Awards Ceremony**



**1** Elizabeth A. Alger, MD'64, presents one of her scholarships to Alice Hon'10

**2** (Left to right) Dhanashri Miskin'10, Sree Grandhi, MD'04, Jennifer (Jacobs) Kertesz, MD'04, and her husband David Kertesz. Drs. Grandhi and Kertesz honored their classmate, the late Valentino Chiaviello, MD'04.

**3** Scholarship recipients flanked by Robin S. Schroeder, MD'86, and Joseph V. DiTrolino, MD'79, (left) and George F. Heinrich, MD'72 (right)

**4** Scholarship recipients with Drs. DiTrolino and Heinrich

## Golden Reunion

Come celebrate the 50th reunion of the charter class of 1960 and the 25th reunion of the class of 1985 on May 14–16, 2010. Start the weekend by attending the 22nd Annual Stuart S. Stevenson Memorial Lecture, the 15th Annual Benjamin F. Rush, Jr. Surgical Society Lecture and the 42nd Annual Harold J. Jeggheers Memorial Lecture on campus Friday. Speakers, times and locations will be announced shortly. A welcome reception is scheduled for that evening at the Sheraton Parsippany Hotel and a trip to the Newark Museum is being planned for Saturday. A black tie optional dinner dance will be held on Saturday evening at the Sheraton and farewell brunch will be served at the hotel on Sunday morning.

MINI VERTER, MD '75

# A Rare Road through Residency

Her part-time journey took 10 years. **By Lisa Jacobs**



Mini Verter, MD

“I think it’s all very doable. But you have to be creative and think outside the box.” When Mini (Ehrlich) Verter, MD, graduated from NJMS in 1975, she never imagined her career path would be easy. Inspired by her father’s cousin, a woman pediatrician who served in the French forces during World War II, Verter went to NJMS when only 10 percent of the students were women. “I had to be assertive,” Verter explains. “I had to be my own advocate.”

Overcoming the gender barrier in medicine was just the beginning for Verter, who observed the personal struggles of female medical students and residents, and became determined to find an alternative. Many women were given only three to four weeks for maternity leave. Others left children behind in their home state or country. Some abandoned medicine for years before returning to finish their training, and one became so depressed she could not function. Verter became intent, after her first post-graduate year of a full-time residency, on finding a part-time situation in pediatrics, family medicine, or psychiatry in central New Jersey that would allow her to answer both the needs of her family and her Jewish religious obligations. “When I went to medical school, no one spoke about part-time programs or combining family with a career in medicine,” she explains. “My friends who have daughters in medical school today could never even conceive of doing what I did.”

An advertisement in a medical journal for a residency-sharing program sparked the idea that she could pursue her goal part-time. Verter called local hospitals, trying to strike a deal. Through diplomacy and negotiation, she eventually found one that worked with her to create a plan that would answer her family needs while fulfilling the requirements of the Accreditation Council for Graduate Medical Education (ACGME).

Verter became the first psychiatry resident at New Jersey’s Monmouth Medical Center as part of a newly developed joint program with Hahnemann Medical College and Hospital in Pennsylvania. Because of the program’s unusual structure, where residents

were expected to split their time between Long Branch, NJ, and Philadelphia, PA, she was able to choose her own hours, take a six month maternity leave for her second child, and arrange her schedule to stay home and observe the Jewish Sabbath by not working. In exchange, she did extra Sundays and American holidays. "This was like an unofficial Shomer Shabbos residency program which I first heard of years later. I had worked it out on my own," Verter explains.

**"Being a parent is intertwined with being a doctor and both enrich each other."**

But even with this flexibility, she still had trouble. To get to Philadelphia by 7 a.m. via public transportation, she had to wake up at 3 a.m. Babysitters were unwilling to work the "crazy hours" demanded by her night and weekend calls. "At one point, I had three babysitters quit within a single month, but I was able to network and get a good sitter who then launched a childcare business for working moms," she explains. Later, Verter moved her start time to 9 a.m. "No one gave me any problem with this," she recalls. "If you are a good worker, qualified, and appreciated, others are willing to bend over backwards to work with you."

In 1982 while Verter was in the middle of the part-time equivalency of her third-year as a resident, ACGME revoked accreditation from the Hahnemann/Monmouth program, forcing her to scour the market for a place to complete her fourth year in psychiatry. With the help of Herman Belmont, MD, a professor and head of child psychiatry at Hahnemann Medical College, she secured a full-time fellowship at UMDNJ without any on-call duties. In 1985, a decade after graduation from NJMS, Verter finally completed her training.

She became board certified in adult as well as child and adolescent psychiatry, and went to work for Staten Island Mental Health Society, a children's community

mental health clinic, where she is still employed today. There, Verter was able to work a part-time schedule for several years with no night calls. She had her children join her commute to Staten Island from New Jersey, enrolling them in school there so that she would be accessible to them during the day.

Today, Verter feels accomplished to have seen thousands of patients while raising three daughters, and later becoming a grandmother of six. "Being a parent is intertwined with being a doctor and both enrich each other making for a more empathic doctor and a more knowledgeable parent," she says.

Verter believes that the lessons she learned in obtaining scheduling flexibility through self-advocacy, diplomacy, and compromise are applicable to women in medicine today. She also stresses the importance of networking, problem-solving, and creativity. Part-time residency programs would provide residents flexibility to accommodate family and educational pursuits. At Hahnemann, she was surprised to see other part-time psychiatry residents, some of whom were pursuing law degrees simultaneously. Twelve years ago, Verter approached Stanley Bergen, Jr., MD, former UMDNJ president, at a lecture to share her thoughts on the issue. "He was so amazed," she recalls. "He was just trying to work out a sharing residency program. It was something brand new to him."

Verter regrets that more shared residencies are not available today. She views those offered on [sharedresidency.org](http://sharedresidency.org) a poor solution because they offer three month alternations of full-time residency and time off. "That is no different than being a full-time resident, but more impractical. There is no flexibility for caring for young children, a chronically ill family member, personal health problems, or for pursuing further education. If something happens to one partner, the other has to take over and become full-time." She advises women to try to negotiate their own schedules. "All you have to do is ask nicely. What's the worst that can happen? You'll get a no. But hopefully, you'll get a yes." ●

## NJMS CALENDAR OF EVENTS

# Winter/Spring 2010

**January 21, 2010**

**Alumni Association Board of Trustees  
General Meeting**

Rosemary Gellene Room, MSB B515, 6 p.m.

**February 19–20**

**Student National Medical Association  
Regional Conference**

**February 23 and March 4**

**Career Nights**

MSB, Grand Foyer, 6:15 p.m.

**March 18**

**Match Day**

MSB, Grand Foyer, Noon

**Alumni Association Board of Trustees  
Executive Committee Meeting**

Student Affairs Conference Room, MSB C-654  
6 p.m.

**April 25**

**Komen Race for the Cure**

Branch Brook Park, Newark

**May 14, 15 and 16**

**Alumni Reunion Weekend  
Honor the Golden Anniversary of the  
Class of 1960, and all 5- and 10-year  
anniversaries**

Details on page 33

**May 23**

**GSBS Pre-Commencement Reception**

**May 24**

**NJMS Convocation**

**May 26**

**UMDNJ Commencement**

**June 17**

**Alumni Association Board of Trustees  
Annual Meeting**

Rosemary Gellene Room, MSB B515, 6 p.m.

**June**

**GSBS Student Association Picnic**

Date to be announced.

EUGENE F. CHESLOCK, MD '65

## Lifeline to the Uninsured

By Jill Spotz

**N**INE years ago on a humid July evening, Eugene Cheslock, MD '65, opened the door to his donated trailer parked in an empty lot in Shrewsbury, NJ, and welcomed three uninsured patients. These three people needed medical care. Unlike millions of Americans without health coverage, they were lucky enough to receive free quality care from a physician who just wanted to make a difference. It was a modest beginning and a glimmer of what was to come for the Parker Family Health Center.

Cheslock was close to retiring from his successful hematology and oncology practice when long-time friend James Parker, Jr., MD, and a small group of concerned community members, walked door-to-door and polled more than 400 homes on the west side of Red Bank in 1999 asking residents whether they had health insurance. The results were overwhelming: 95 percent of the growing Latino population and 40 percent of residents overall lacked health coverage.

The team immediately sprang into action and through assistance from the national organization, Volunteers in Medicine, Cheslock and Parker started the Parker Family Health Center. Today, this booming, free health clinic located minutes from its meager beginning is housed in a beautiful building thanks to donations from the community, foundations and celebrities like the musician Jon Bon Jovi and his family. The center operates solely on grants and is staffed by volunteer physicians and clinical staff who see approximately 10,000 patients each year. "There is a need for communities to respond without government support to issues such as healthcare that affect all of us," explains Cheslock. "Our health center is



Eugene F. Cheslock, MD

not funded by taxpayers and shows what we can accomplish on our own."

The Center is also a reflection of the status of healthcare today. According to 2007 data from the U.S. Census Bureau, 47 million Americans are without health insurance. This number is growing due to many variables including the fact that health coverage is no longer a guarantee even for those who

are employed. Many small business owners cannot afford to offer health insurance to their employees due to rising premium costs. As a result, the number of free health clinics is growing. There were only six in the U.S. when the Parker Family Health Center was established; now there are 72. As Cheslock explains, "When we first opened our doors nine years ago, 95 percent of our

patients were undocumented immigrants. Today, 60 percent of our patients are American citizens.”

Cheslock credits his time at NJMS with reinforcing his desire to help those in need but acknowledges that his philanthropic drive is connected to his own personal upbringing. “There are altruistic tendencies in all of us,” he says. “We may all have ‘it’ and these tendencies may be tested, tried and hopefully not broken, especially during the arduousness of residency. But the greatest satisfaction that we can gain is helping others.” Cheslock graduated when the medical school was in the process of becoming part of the state university. As a result, medical students traveled in teams to various teaching hospitals in New Jersey and New York

**“This is what medicine is all about—being able to share expertise, talent and abilities and helping those in need. You can feel the pulse in our center.”**

for their clinical training. He says this experience taught him what it means to be a team member and to depend on others for success.

Following medical school, Cheslock trained at the Cleveland Clinic and Albany Medical Center where he completed a fellowship in hematology. He practiced hematology and oncology for 25 years in Monmouth County before retirement. At the Parker Family Health Center, he’s now the president but that work doesn’t stop at the Red Bank city line. He is in the process of assisting a group in Florida setting up their own volunteer health center. “It has been a marvelous ride for all of us,” he says. “This is what medicine is all about—being able to share expertise, talent and abilities and helping those in need. You can feel the pulse in our center.” ●

## Focus on Philanthropy

*Continued from page 40*

Bonilla, the newest navigator who is from Honduras, started just last summer in August and faced a challenge with her very first patient. “Two months after arriving here from the Philippines, she was diagnosed with breast cancer and kept saying, ‘How will I pay?’ I told her, ‘I’m here to help you. Don’t worry. There are decisions you’re going to have to make but I’ll guide you and tell you what you need to do,’” says Bonilla. She shepherded this patient through a lumpectomy, radiation, and chemotherapy, as well as her financial considerations, and then even located a nurse who could speak her Philippine dialect of Tagalog.

“We streamline patients from one department to another, too,” says Bonilla. “There are so many places in the hospital to have an X-ray, for example. I show them where to go. In oncology, patients sometimes forget to have an EKG or PET scan, which holds up treatment. I call to remind them.”

“People can get the best care when they go into clinical trials, so many of our patients, who are minorities, now participate,” Barber adds. However, clinical studies can have rigid parameters that all participants must meet in order to qualify. “It seems crazy, but studies want healthy cancer patients. Depending on the trial, uncontrolled diabetes or cardiovascular disease, for example, can disqualify a patient,” explains Barber.

One male patient broke down and cried when preliminary testing knocked him out of a head and neck cancer trial. “I hugged and assured him, ‘You’re going to get good treatment whether you’re in a trial or not,’” recalls Barber, who guided him through chemotherapy and radiation. A year later while walking down the boardwalk in Atlantic City, she bumped into him and was so happy to see that “he looked well.”

What does it take to become a navigator? The most important job requirements are compassion and a nurturing personality. It’s

also helpful to be bilingual but these navigators just have basic undergraduate college degrees. Kopenski, who is from Brazil, speaks Spanish and Portuguese. All three worked at UH in other capacities before applying for these jobs. The payoff is satisfaction in helping others and the gratitude of people who may have nowhere else to turn. “When I returned after being out ill for five months, it was so rewarding to hear that patients missed me and could see the difference I had made in managing their care,” says Kopenski.

Of course, there are frustrations. Some patients have trouble understanding their diseases so information may have to be repeated over and over again. Sometimes patients don’t read all the material the navigators provide. And not every case has a happy ending. Last September, a young woman suffering with aggressive breast cancer died under their watch. At the end of her life, the patient navigators held her hand, read prayers and stayed by her side...like angels. ●

## In Anil Saha’s Memory

**T**HOUGH Anil Saha, PhD, may have retired from the Department of Microbiology and Molecular Genetics almost 20 years ago on Dec. 31, 1990, this long-time professor of microbiology will continue to have a presence at NJMS through a \$70,000 gift made recently from his estate. “The bequest is very nice and was unexpected,” explains Carol S. Newlon, PhD, professor and chair of the department. Saha died in 1995 and “in the years following his retirement, he made several gifts to support our seminar program,” Newlon says. In creating this endowment, his intentions were to continue the distinguished lecture series on an annual or biannual basis and to fund activities beneficial for students who are training in the department. For instance, the Saha Fund will support graduate students who want to travel to professional conferences or to other educational activities.

1960'S

**Daniel D. Cowell, MD'60**, retired in June 2009 and spent the summer with his wife, Diana, on the beach and their new boat in South Bethany, DE. Mrs. Cowell was a medical social worker for hospice and Dr. Cowell was senior associate dean for graduate medical education and a professor of psychiatry, Marshall University, Joan C. Edwards School of Medicine in West Virginia. He has joined the local volunteer fire department in Bethany Beach and plans on doing locum tenens work. Friends and family are welcome to visit.

**James DeGerome, MD'68**, has a new book, *The Cure for the American Healthcare Malady*. DeGerome is the Vice President of the Digestive Disease National Coalition in Washington, DC.

**James F. Donohue, MD'65**, was named Outstanding Clinician 2009 by the American Thoracic Society, North Carolina branch.

**John J. Killion, MD'62**, reports that he is still practicing and, sadly, that his wife Anita passed away six years ago. Killion has 7 children and 14 grandchildren.

**Richard E. Pelosi, MD'61**, is working for the Palm Beach Medical Society Medical Reserve Corps, the American Red Cross, and enjoying retirement.

**James (Jay) Phelan, MD'68**, featured in the last issue of *Pulse*, is still working part-time as a flight surgeon for NASA and spent a month in Star City, Russia, last fall.

**Steven J. Stanzione, MD '66**, is still busy working part-time with his hematology/oncology group at Overlook Hospital Cancer Center in Summit, NJ.

1970'S

**Thomas Dayspring, MD '72**, became a fellow of the National Lipid Association in May 2009.



Professor and head of dermatology. Together, they explored sites around the Macedonian capital, Skopje, including the historic St. Spas Church.

**Marinos A. Petratos, MD'60**, (left) of Athens, Greece, and New York City, delivered a lecture on skin rejuvenation employing cosmeceuticals and chemical peels at the 4th Congress of the Macedonian Dermatovenereologic Society held in Ohrid, a city of Byzantine churches and cobblestone streets adjoining Lake Ohrid, a natural tectonic lake shared with neighboring Albania. He shared the program with **Robert A. Schwartz, MD, MPH**, (right) now in his 27th year as an NJMS

**Jose F. Colon, MD'78**, would love to hear from NJMS classmates/friends and lives in NYC.

**Mercedes Lindsey, MD'78**, is chief, hematology/oncology at the Hampton VA Medical Center.

**Thomas J. Mancuso, MD'79**, is an assistant professor of anesthesia, Harvard Medical School, Children's Hospital of Boston, who has collaborated with Drs. Robert S. Holzman and David Polaner to co-author *A Practical Approach to Pediatric Anesthesia*.

**Lawrence Marum, MD'73**, is country director for Centers for Disease Control and Prevention based in Lusaka, Zambia. With an adult HIV prevalence of 1 percent, Zambia has an expanding program for HIV prevention, care and treatment.

**John R. Middleton, MD'70**, is a member of the medical staff of ID Care, specializing in infectious diseases, and has earned recognition as Master of the American College of Physicians. Middleton is one of only 648 Masters in a membership of more than 119,000 physicians.

**Daniel Tartaglia, MD'71**, has been clinical medical director of Provençal Hospital on the North Island, Rotorua, New Zealand, for the past six years, as well as consultant physician and geriatrician.

1980'S

**Lauren Alter, MD'83**, practices internal medicine and has recently moved to Rockingham, NC. Alter, who is caring for her patients using a preventive approach, has joined FirstHealth Richmond Medical Group—Internal Medicine.

**Anthony D. Ciardella, MD'80**, is an associate clinical professor at the University of Connecticut School of Medicine and associate chief of medicine at the Hospital of Central Connecticut.

**Linda Jean Griffith, MD'81**, has had her first book chapter published, on death and bereavement in *More Than Medication*, which is about incorporating psychotherapy into community psychiatry appointments.

**Evelyn Montalvo Stanton, MD'85**, is pediatric pulmonology director and founder of the Children's RESPIRA bilingual education program at NJMS, which is designed to educate families about children's asthma.

**Linda Rimkunos, MD'81**, is currently employed as a locum tenens (temporary appointment) emergency physician. After enjoying assignments in emergency in Vermont, Pennsylvania, New York, Arizona and Washington State, she served as the physician for Mountain Medical Services at the Mt. Snow Ski Area. Rimkunos is also very involved in scouting and was awarded the 2008 Outstanding Scout Award by the CT

Your News from Old Friends

How are you? What are you doing with your life? Send us an update, a photo, a story idea or just your latest address. *Pulse* magazine is your way to stay in touch. Mail this form to: Alumni Association of New Jersey Medical School, 185 South Orange Avenue, 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.

Name _____		Graduation Year _____
Home Phone _____	Office _____	Fax _____
E-Mail Address _____		
Mailing Address _____		
What I Have Been Doing (enclose photos) _____		

I would like to be a representative for my class.

**Please join the Alumni Association of New Jersey Medical School.**

General Dues	\$65.00
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Visit <http://njms.umdnj.edu/>, click on **Alumni** and **Alumni Association** and then **Online Dues Payment** to pay your dues online.

The Lifetime Membership is being offered to our alumni as a means to perpetuate the goals of the Alumni Association and enable its members to sustain their support in a more meaningful way. All categories of membership will afford you the opportunity to keep connected with us. You will continue to receive all membership benefits, including NJMS *Pulse* magazine, information about upcoming events and reunions, and library privileges.



Hockanum River District. She is looking forward to serving on the national medical staff of the 100th anniversary Boy Scout Jamboree in 2010.

## 1990'S

**Debra Eisenberger Matityahu, MD'92**, recently shared her recollection of the late Eric Lazaro, MD, who died last year: "He was amazing and really touched us all and taught us so much. I especially loved his jokes when he helped teach us in anatomy lab. He will be missed!"

**Debbie Salas-Lopez, MD'96**, has been named chair of Lehigh Valley Health Network's Department of Medicine.

**Sean M. Studer, MD'93, MSC**, was appointed Chief of the Division of Pulmonary and Critical Care at Newark Beth Israel Medical Center, in January 2009.

## 2000'S

**David Adinaro, MD'00**, has been named Chief of the Adult Emergency Department at St. Joseph's Regional Medical Center in Paterson, NJ.

**Benjamin Bly, MD'09**, a member of the Summit, NJ Volunteer First Aid Squad, is doing his residency in neurology at the University of Michigan.



What's in your attic? **Rudolph Talarico, MD'60**, sent us a veritable treasure-trove of well-preserved memorabilia. Among the items inside his carefully packed box:

- A 1960-vintage alphabetical listing of home and office numbers for each class member

- The 1960 yearbook

- The original invitation to the First Commencement Exercises on June 4th, 1960 at Seton Hall College of Medicine and Dentistry

**Tanya Chadha, MD'08**, married Shailesh Sachdeva in February 2009.

**Octaviano Espinosa, MD'08**, is in Hawaii as the General Medical Officer, 1st Battalion/12th Marines and will continue his residency after two years. He is heading off to a combat zone this year.

**Adam Fechner, MD'05**, is doing his residency at UMDNJ-University Hospital in Ob/Gyn. He received the Chairman's Award, the Resident Research Award, the Society of Laparoendoscopic Surgeons Resident Achievement Award and the Morristown Memorial Hospital Ob/Gyn Resident of the Year Award.

**Christian Geanette, MD'08**, finished a transitional year at the University of Hawaii and has begun a radiology residency at NY Presbyterian/Cornell.

**Marissa Kellogg, MD'09**, who served as a member of the Summit, NJ Volunteer First Aid Squad, is doing her residency in neurosurgery at Brigham and Women's Hospital, Boston, MA.

**Adam Ligas, MD'06**, and **Christina Pisani, MD'06**, who are both in Pittsburgh, send news that he will enter a forensics fellowship in psychiatry in July 2010 and she matched in a maternal fetal medicine, Ob/Gyn fellowship.

**Demetri Merianos, MD'04**, is in year six of a seven-year general surgery residency in Philadelphia, PA.

**David J. Ospital, MD'05**, is a specialist in general ophthalmology and has joined the Peninsula Eye Center practice in Salisbury, MD.

**Joshua H. Pozner, MD'06**, was accepted for a fellowship in the Department of Pain Management at Cornell that begins in July 2010.

**Pascal Scemama, MD'09**, a volunteer for the Summit, NJ First Aid Squad along with his classmates, Drs. Kellogg and Bly, will start his residency in anesthesiology at Massachusetts General Hospital after his internship at Morristown Memorial Hospital.

*If you would like to make contact with your classmates, please email Dianne Mink at [minkda@umdnj.edu](mailto:minkda@umdnj.edu), to reconnect.*

## IN MEMORIAM

*The Alumni Association and the NJMS community extend deepest sympathies to the families and friends of:*

**Neil S. Cherniak, MD**, clinical professor, medicine. Cherniak earned his medical degree from State University of New York, Brooklyn and served as dean of the School of Medicine at Case Western Reserve University. As a captain in the U.S. Air Force from 1958 to 1960, he worked at the Acceleration Laboratory at Wright Patterson Air Force Base, where he was part of a project that selected the first seven Mercury astronauts, including John Glenn. Funeral services were held Oct. 25 in the Bernheim-Apter-Kreitzman Suburban Funeral Chapel in Livingston.

**Gerard F. Hansen, MD'62**, on November 29, 2009. Hansen practiced obstetrics and gynecology in Hackensack, NJ, and was a faculty member in the NJMS Department of Obstetrics and Gynecology and on the NJMS admissions committee for many years. He is survived by his wife Margaret (Peggy) Hansen, four children, seven grandchildren and his sister.

**Phyllis Bagdi Hollingsworth, MD'60**, on Aug. 23, 2009 in Kirkland, WA. Bagdi practiced anesthesiology and retired after more than 30 years at Providence Hospital in Seattle. She is survived by her husband, a sister and a niece.

**Katherine Kulak, MD'88**, a specialist in internal medicine, on December 1, 2007. Kulak practiced at the Dean Medical Center in Madison, VA.

**Eric J. Lazaro, MD**, July 2009. Lazaro was a respected faculty member at NJMS, and a cardiothoracic surgeon who was recruited to the Seton Hall College of Medicine in 1960. The winner of 18 Golden Apple teaching awards, Lazaro was also devoted to his patients and respectful of everyone on his healthcare team, including the hospital housekeepers. In his memory, the Alumni Association is establishing a scholarship, The Eric J. Lazaro, MD, Memorial Scholarship Fund, which will be awarded to a third or fourth year student with interest in surgery, a high academic standing, financial need and community service experience. Contact the Alumni Office for more information: [njmsalum@umdnj.edu](mailto:njmsalum@umdnj.edu).

**Carroll B. Leevy, MD**, associate professor, medicine. A 1983 graduate of Johns Hopkins University School of Medicine, Leevy was a hepatologist widely known for his compassion and dedication to his patients. A funeral service was held on October 15 at Saint Stephens Chapel in Millburn. He was predeceased by his father, one of NJMS' founders, the late Carroll M. Leevy, MD.

**Sunil Pandey, MD**, clinical assistant professor, medicine, on April 25. A funeral service was held at the Bernheim-Apter-Kreitzman Suburban Funeral Chapel in Livingston.

**Richard Starita, MD'77**, of Dallas, TX, on September 6, 2009. Starita was an ophthalmologist with Glaucoma Associates of Texas for 23 years and is survived by his wife, Paulette, and his father, Michael Starita.

**Philip J. Urso, USAF Col. (Ret.), MD'63**, on October 5, 2009. Urso resided in Ft. Washington, MD; leaves his wife Annette; children Christine, Anthony, Jeanine and Philip, Jr.; his mother, Ann Urso, and five grandchildren.

# Heavenly Navigation

What every cancer patient needs in this confusing, confounding modern healthcare maze

BY FLORENCE ISAACS

**P**ATIENTS call them “angels.” You would too if you were diagnosed with cancer and found Larissa Madelin Bonilla, Heleine Kopenski, or Yasmeen Barber at your bedside ready to lead you through the maze of decisions, tests, treatments and finances. Known as patient navigators, the three specialists work at the NJMS-University Hospital (UH) Cancer Center bringing help and hope to individuals caught in the turmoil of cancer.

“I was the first navigator here,” says Barber, who started the UH program in 2005. “We see a very diverse racial and ethnic population that faces enormous barriers to care. They’re uninsured or underinsured; fear and distrust the medical system; and often can’t take time off from a job for medical appointments.” Barber’s new category of hospital expertise reflects a national effort to correct the disparities in access to medical care and in health outcomes across the U.S. Statistics indicate that the poor and disadvantaged are being diagnosed with late stage disease at a far greater rate than average.

The first patient navigator program in the U.S. was launched in New York in 1990 and others have appeared across the country ever since. The Susan G. Komen for the Cure of North Jersey funds Bonilla and Kopenski. Barber’s position is underwritten by a minority-based New Jersey Commission on Cancer Research (NJCCR) grant and the Minority-Based Clinical Oncology Program (MBCCOP) under the direction of Robert Wieder, MD, PhD, an NJMS associate professor and director of the Cancer Center’s



Yasmeen Barber, Heleine Kopenski, and Larissa Madelin Bonilla

Clinical Research Office. Because a head and neck cancer pilot project ended, the navigators are focusing on breast cancer now but eventually they hope to have an “angel” available for every cancer diagnosis.

The UH-Cancer Center program is unique because it also identifies cancer patients who may be eligible for clinical trials. “Because we develop relationships with patients, we’re able to educate them about the benefits of trials,” says Barber, a clinical research coordinator and supervisor of the navigator program. Minorities have been under-represented in clinical trials. “It is especially critical that we have an ethnically balanced representation on clinical trials because the effect of treatments may vary among different populations,” Weider says.

What exactly does a navigator do? She or he offers support, advice, and undivided attention to patients and along the way, the navigator also teaches patients about their

diagnosis, schedules appointments, and accompanies them to treatments and tests. The relationship can be intense. For instance, if the results of a mammogram or biopsy are bad, the navigator is there to hold that person’s hand and offer hope. Barber meets weekly with Bonilla and Kopenski to identify barriers patients are facing and ensure they don’t hold up treatment.

“Some people are in denial after a diagnosis. We make sure they don’t have a biopsy and then disappear,” says Kopenski, a breast cancer navigator who was once uninsured herself. Take for example the woman she remembers who was diagnosed with non-aggressive breast cancer. “She insisted she was dying and didn’t want surgery. After I calmed her down and explained why surgery was critical, she changed her mind. She says I saved her life,” adds Kopenski.

*Continued on page 37*

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\* Subject to rate changes.

## Sample Rates

Beginning February 1, 2009.  
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Age	Rate
65	5.3%
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73	6.0%
76	6.4%
80	7.1%
85	8.1%
88	8.9%



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