

New Jersey Medical School

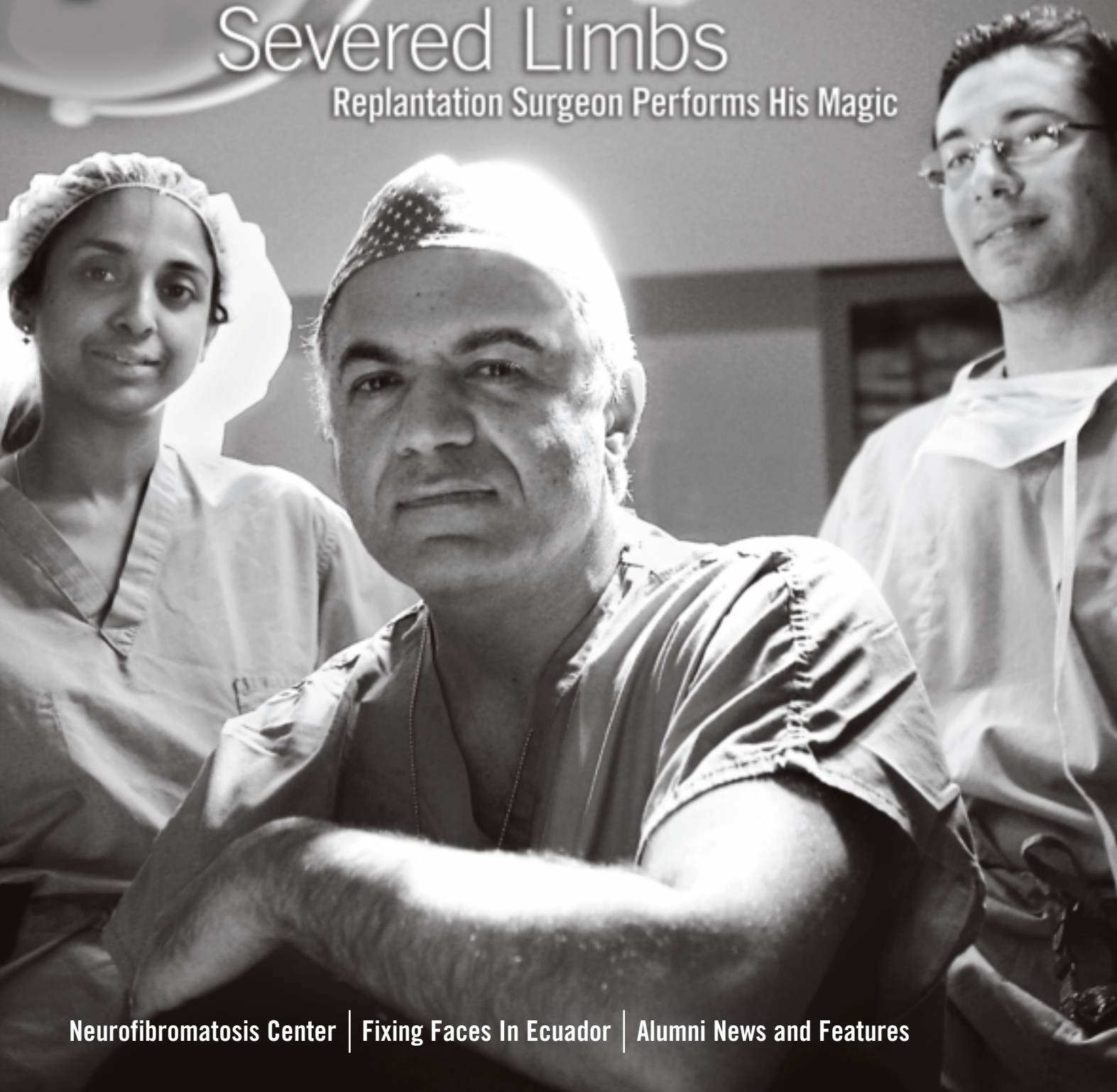
Volume 3 Number 1 Spring | Summer 2005

pulse

University of Medicine & Dentistry of New Jersey

Severed Limbs

Replantation Surgeon Performs His Magic



Neurofibromatosis Center | Fixing Faces In Ecuador | Alumni News and Features

Russell T. Joffe, MD
The Sharon and Joseph L. Muscarelle Endowed Dean

Message from the Dean



T **TEAMWORK PLAYS A CRITICAL ROLE** in advancing the field of medicine. Its value is observed in operating rooms as surgeons work in unison to save lives; in research labs where scientists collaborate to fight deadly diseases; and in medical school classrooms, where students gather to solve problem-based learning exercises.

At New Jersey Medical School, this team approach helped us prepare for a reaccreditation visit from the Liaison Committee on Medical Education (LCME) in March. Numerous students, faculty and administrators participated in an 18-month planning and review process, including a self-study that evaluated every aspect of our school—from the curriculum that we teach to the way in which we govern ourselves.

Although the LCME final report will not be released until this summer, we received a stellar interim report from the site visit team. Among the noted strengths are our education leadership; comprehensive student services; a diverse student body committed to community service; our newly launched Jubilee Curriculum; and our ever-increasing research dollars.

As we build upon these strengths, we continue to develop new competencies. We are working with clerkship sites to ensure that students' educational experiences are consistent. Expanded involvement in the AAMC Careers in Medicine program is providing students with more opportunities to explore medical specialties. We are also creating more on-campus study and work areas, including the new NJMS Student Computer Center.

We look forward to the LCME's final report and are committed to working together to ensure that our programs meet the highest standards in medical education.

New Jersey Medical School pulse

VOLUME 3, NUMBER 1 SPRING | SUMMER 2005
 UNIVERSITY OF MEDICINE & DENTISTRY OF NEW JERSEY

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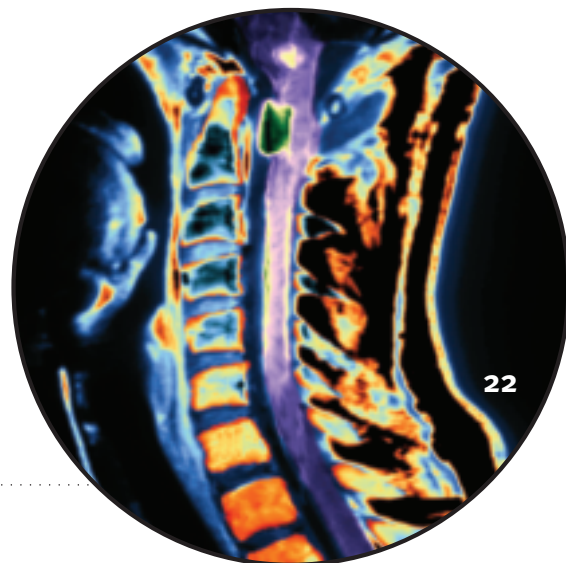
KEEP IN TOUCH
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ON THE COVER: Ramazi Datiashvili, MD, with residents Roshini Gopinathan, MD (left), and Matthew Trovato, MD. Photo by John Emerson.
For names and email addresses of all NJMS experts who appear in this issue, see the inside back cover.



UMDNJ President Inaugurated

UMDNJ's third president looks forward to helping shape the future of the institution.

ON APRIL 26, more than 2,500 people listened to John J. Petillo, PhD, describe the academic ceremony to inaugurate him as president of the University of Medicine and Dentistry of New Jersey as an opportunity to “celebrate the power, pride and passion of New Jersey’s higher education and specifically this great university.”

The ceremony took place before a maximum-capacity crowd in the Prudential Hall of the New Jersey Performing Arts Center in Newark.

“The wealth of intellectual resources that the higher education community provides and offers the citizens of this state needs to be understood and appreciated more fully,” Petillo told the crowd of academic, political, business and community leaders in the audience. “It is a fundamental obligation of our citizenry...that higher education be a priority. It is a social contract that cannot be ignored, shattered or dismissed without grave consequences.”

In tribute to the more than 700 faculty who marched in the academic procession that opened the inauguration of UMDNJ’s third president in its 33-year history, Petillo said, “This University boasts an enormous wealth of intellectual acumen committed to discovery, teaching and caring. For too long its unknown richness became misinterpreted and misrepresented as greatness wanting. Clearly, the opportunities of the reorganization process awakened our greatest resources; namely our faculty...who knew well the depth and comprehensiveness of their work.”

As part of his remarks, Petillo exhorted the University family to be proud of the institution. “It is pride in who we are and who we can become that will distinguish this University.”

He also reaffirmed the University’s commitment to serving all of the state’s residents. “Today, I clearly and unequivocally reaffirm this University’s service to the poor, the underserved and the uninsured. We cannot and will not allow the social



Above: UMDNJ president John J. Petillo with New Jersey Acting Governor Richard J. Codey (second from left) and former governors Brendan Byrne (left), James Florio (second from right) and Donald DiFrancesco (right).

contract on which this University was founded to be eroded...our campuses will always be there to serve the most vulnerable.

“It is this passion for caring,” he said, “that will have us continue opening our doors and hearts to all. The customs, cultures and names may be different, but our obligation and focus for clinical care will not wane.”

New Jersey Acting Governor Richard J. Codey delivered the keynote address. Also delivering congratulatory remarks were U.S. Representative Donald Payne, Newark Mayor Sharpe James, and George Pruitt, president of Thomas Edison State College and chairman of the New Jersey Presidents’ Council.

“It is a fundamental obligation of our citizenry... that higher education be a priority. It is a social contract that cannot be ignored, shattered or dismissed without grave consequences.”

John J. Petillo, PhD, from his inauguration address

In addition to the faculty, marching in the academic procession were: members of the Inaugural Assembly, who represented the four-pronged mission of the University—research, education, clinical care and community service; the deans of UMDNJ’s eight schools; current and former members of the UMDNJ Board of Trustees; the University administration; members of the Master Educators Guild; and student, faculty and alumni representatives from each school.

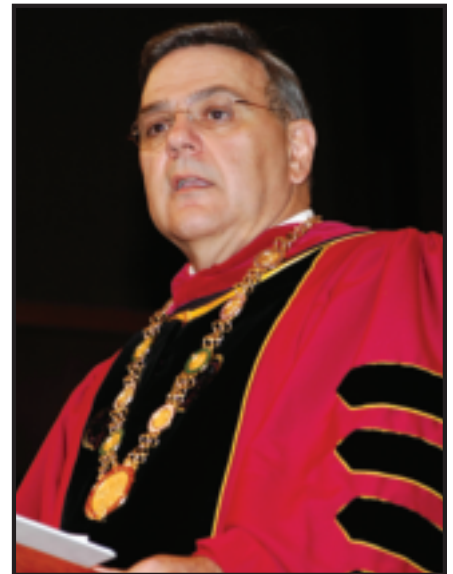
Also in the procession were three former governors of New Jersey, the senior leadership of the New Jersey State Legislature, and 16 presidents of New Jersey colleges and universities. Stuart D. Cook, MD, who served as president of the university from 1998 to 2004 and is a professor of neurosciences at New Jersey Medical School, was the grand marshal of the procession.

R. Michael Gallagher, DO, co-chair of the Inauguration Committee and dean of the UMDNJ–School of Osteopathic

Medicine (SOM), introduced the representatives of the four constituencies of the University presenting formal greetings. They were: on behalf of the students, Claudia Mosquera from NJMS; the alumni, Stephen Scheinthal, DO, president of SOM’s alumni association; the faculty, Frederick Lepore, MD, from Robert Wood Johnson Medical School; and the staff, Lorraine Williams, administrative analyst at UMDNJ University Behavioral HealthCare.

The Honorable James Zazzali, associate justice of the New Jersey Supreme Court, delivered the oath of office.

Petillo was named to the presidency by the UMDNJ Board of Trustees on November 23, 2004. He had served as acting president since last July 1. ●



University Hospital Has New CEO

DARLENE L. COX, MS, RN, was named president and chief executive officer of UMDNJ–University Hospital (UH) in November 2004. She brings with her a distinguished career, as well as the combined perspectives of a caregiver, business administrator and adept negotiator.

Cox is no stranger to UH and the Newark community. From 1986 to 1994 she was chief nurse and administrator of patient care services at the hospital. During that time, she took a one-year leave of absence to join the highly prestigious White House Fellows program, where she worked on health care policy issues. She is the former president and CEO of Essex Valley Health Care (East Orange General Hospital) and most recently served as an executive health-care consultant, providing health care management and planning services to a variety of clients nationwide. Prior to that, she served as vice president of patient care services and chief nursing officer at Columbia-Presbyterian Medical Center. ●



50th Anniversary Research Symposium

AS NEW JERSEY MEDICAL SCHOOL CELEBRATES 50 years of educating physicians, it is simultaneously honoring extraordinary biomedical research, both by its own faculty and others. More than 200 people attended the 50th Anniversary Scientific Research Symposium on April 22 featuring speakers whose topics ranged from the BRCA1 gene to heart failure to the effect of TB on the immune response.

M. Jocelyn Elders, MD, drew a standing ovation when she spoke about the status of health disparities, and disparities in access to healthcare, in this country. Now retired from practice, Elders served as Director of the Arkansas Department of Health under then-governor Bill Clinton and in 1993,

under President Bill Clinton, became the first African American and the second woman to fill the post of U.S. Surgeon General. She was an outspoken advocate for comprehensive health education, including sex education, in schools.

“We can’t teach what we don’t know and we can’t lead where we won’t go,” said Elders. “We need improved education to decrease the number of childhood pregnancies, improved access to decrease the number of individuals without health insurance and enhanced political strategies to increase funding for universal health coverage.”

The afternoon’s line-up starred Judah Folkman, MD, professor of cell biology at Harvard Medical School. His presentation, entitled “Can Human Cancer be



Judah Folkman, MD

Treated Before it is Located?” was based on the researcher’s response to a question posed by the father of a 13-year-old boy who had an elevated calcitonin level. One of the most accurate biomarkers of medullary thyroid cancer—which has a high mortality rate even after surgery—this hormone’s levels can be measured after an operation to determine if the cancer is still present, and if it is growing. Calcitonin is present in the blood one year or more before a tumor becomes visible.

The father, a prominent London scientist, wanted to know if his son could receive treatment before the tumor surfaced. Folkman gave the boy preventive treatment with an angiogenesis inhibitor, with excellent results. “Recurrent or metastatic medullary carcinoma of the thyroid gland might be one type of tumor for which a ‘preventive’ anti-angiogenic strategy could be tested in a small clinical trial,” he said.

Folkman is the “father” of angiogenesis research, although his ideas took decades to gain acceptance. In 1957, after completing medical school, he went to the National Naval Medical Center.

While working at the naval center, he theorized that solid tumor growth is angiogenesis-dependent. Folkman’s theory was published in *The New England*



Dr. M. Jocelyn Elders, MD, and George Heinrich, MD, vice chairman and CEO, UMDNJ Foundation

Journal of Medicine in 1971, but was largely dismissed by leading researchers. In 1975, Folkman and Henry Brem, MD, discovered the first angiogenesis inhibitor molecule during their study of cartilage. Since that time, 30 natural angiogenesis inhibitors have been identified in the body.

In the last 30 years, more than 10,000 cancer patients have been treated with some form of experimental antiangiogenic therapy. On February 26, 2004, Avastin (bevacizumab) became the first FDA-approved drug specifically designed to block angiogenesis. It is a monoclonal antibody against vascular endothelial growth factor and has been shown to be effective for the treatment of metastatic colorectal cancer.

According to Folkman, 50 or more angiogenesis inhibitors are currently in clinical trials for cancer, macular degeneration, diabetic retinopathy and psoriasis.

“And there are several angiogenesis



Maestro Draws a Lunchtime Crowd

A NIGHT AT THE OPERA may not be everyone’s idea of a good time, but for many at NJMS, lunchtime with the maestro made the menu sing. The NJMS Faculty Organization invited one and all to two lunchtime operalogues—guided tours through the stories and music of two popular operas, *The Barber of Seville* and *Il Traviatore*. Maestro Alfredo, the principal conductor and artistic director of the New Jersey State Opera, with a little help from soloists from the company, made the operas come alive in the Rosemary Gellene Room of the medical school. And because all good doctors know that the spirit and the mind must both be nourished, a light lunch was provided for one and all. ●

inhibitors currently on the market,” Folkman pointed out, “including Macugen for age-related macular degeneration and Avastin.” Thalidomide, which was pulled from the market 30 years ago because it caused devastating birth defects, is an angiogenesis inhibitor that shows promise as a treat-

ment for multiple myeloma.

Other symposium presenters and topics included: Eric N. Olson, PhD, Southwestern Medical School at the University of Texas, *Transcriptional Control of Heart Development and Disease*; Junichi Sadoshima, MD, PhD, New Jersey Medical School, *Novel Signaling Mechanisms Regulating Growth and Death of Cardiac Muscle and Their Implications in Heart Failure*; David M. Livingston, MD, Dana Farber Cancer Institute and Harvard Medical School, *Functional Analysis of the BRCA1 Gene Product(s)*; David Relman, MD, Stanford University School of Medicine, *With Whom Do We Share Our Bodies and for What Purpose*; Gilla Kaplan, PhD, Public Health Research Institute and the University of Capetown, South Africa, *Mycobacterium Tuberculosis Strain Diversity and the Host Immune Response*.

The symposium was funded by the Office of the Dean, the Alumni Association and educational grants provided by the Irving Zachary Research Fund for Medical Education, Merck & Co., Inc., Pfizer, Inc., Novartis Pharmaceuticals, Schering-Plough, and Becton Dickinson. ●

Deitch Named President of Surgical Infection Society

EDWIN A. DEITCH, MD, professor and chair of the Department of Surgery at New Jersey Medical School, became president of the Surgical Infection Society at its annual meeting in May. The Surgical Infection Society was established to educate health care providers and the public about infection in surgical patients and to promote research in the understanding, prevention and management of surgical infections. Deitch also received the President’s Leadership Award from the American Burn Association in May. He is the first recipient of the award, given in recognition of his distinguished career in burn treatment, research and education. The American Burn Association and its 3,500 plus members worldwide dedicate their efforts and resources to promoting and supporting burn-related research, education, care, rehabilitation and prevention. ●





Left to right: Lee B. Reichman, MD, Bonita T. Mangura, MD

\$7.5 Million Federal Grant to TB Center

THE NEW JERSEY MEDICAL SCHOOL NATIONAL TUBERCULOSIS CENTER at UMDNJ has received a \$7.5 million federal award to expand its regional activities in tuberculosis training and medical consultation.

The grant, awarded by the U.S. Centers for Disease Control and Prevention (CDC), will allow the National Tuberculosis Center to provide services in 16 states ranging from Maine to West Virginia to Indiana.

The center was established in 1993 in response to rapidly rising rates of tuberculosis nationwide. "Since its inception, the center has played a leadership role in controlling the resurgence of TB locally, nationally, and internationally," says Lee B. Reichman, MD, founding director of the center. "In fact, our faculty was the first to describe the lethal interaction of TB and HIV several years ago."

"We've trained 15,000 health care professionals, developed more than 45 education and training products and responded to more than 8,000 calls to our national TB information hotline," says Reichman, who is also a professor of medicine and preventive medicine and community health at NJMS.

He has been the principal investigator of several NIH and CDC grants related to TB. He is past chair of the National Coalition to Eliminate Tuberculosis and currently chairs the National Tuberculosis Training Initiative. He participates in numerous professional organizations, including: the International Union Against Tuberculosis and Lung Disease, where he served as vice-chair of the Executive Committee; the American Lung Association, where he served as president; the American Thoracic Society; and the American College of Chest Physicians.

Reichman has published more than 200 articles, scientific reviews, and book chapters on tuberculosis and other infectious lung diseases. In 1993, he published the first comprehensive medical book covering tuberculosis, which is now in its second edition (2000). His most recent book, *Timebomb: The Global Epidemic of Multi-Drug Resistant Tuberculosis*, received the American Medical Writers Association's Best Trade Medical Book award in 2002.

Nearly two million people die from TB each year. Estimates show that approximately one-third of the world's population is infected with the bacterium that causes tuberculosis; and that every year eight million people become ill with active TB.

Today, antibiotic resistance, poor adherence to long treatment regimens, inadequate attention to the disease from too tightly-stretched health systems in developing countries, and poverty combine to make TB a major killer worldwide. In addition, HIV radically changed the TB picture for the worse. The World Health Organization (WHO) estimates that almost one third of the 40 million people living with HIV/AIDS today are co-infected with tuberculosis.

"This is a preventable, curable disease," Reichman says. "We know how to do it."

The NJMS National Tuberculosis Center operates a toll-free information line (1-800-4TB-DOCS) for healthcare professionals and the public. The Center also maintains a Web site (<http://www.umdnj.edu/ntbcweb>) and responds to questions submitted via email.

The Center is one of four Regional Training and Medical Consultation Centers in this country, which are supported by a federally funded cooperative agreement from the Division of Tuberculosis Elimination, Centers for Disease Control and Prevention. The Center receives additional support through grants from the CDC, National Institutes of Health and the New Jersey Department of Health. ●



In Memoriam:

Scott F. Nadler, DO

SCOTT F. NADLER, DO, professor of Physical Medicine & Rehabilitation and Director of Sports Medicine at UMDNJ–New Jersey Medical School (NJMS), died on December 26, 2004, following a long illness. In addition to his full-time faculty position, Nadler held several part-time appointments, including consulting positions with leading consumer products firms and insurance carriers. These positions offered him an exceptional level of national visibility within the health insurance and consumer health products industries.

Scott Nadler was an outstanding teacher who was regularly invited to lecture at leading residency programs and professional organizations. His research addressed several areas, including low back pain, lower extremity injuries, muscle fatigue and outcomes in workers compensation. His research led to innovative commercial products for treating low back pain.

He provided extensive service to health-related organizations and editorial boards. He volunteered as an item-writer, vignette writer, oral examiner, manuscript reviewer and clinical

guidelines task force member. He served as team physician for the former XFL professional football league, and also served on the medical faculty at the seasonal Olympic Training Centers in Lake Placid, NY, and Colorado Springs, CO. He was the head U.S. team physician at several international figure skating championships, and lectured at the International Olympic Committee World Congress on Sports Sciences. He was also selected as the School's Clinical Science Faculty Person of the Year for 2003.

Nadler developed an exceptionally strong recognition among his peers at the national level as a role model for the academic musculoskeletal practitioner. His work was featured in such newspapers as *The Washington Post*, the *Los Angeles Times*, the *Minneapolis Star Tribune* and *The New York Times*. Scott was truly a “doctor’s doctor” who cared for many of our faculty at NJMS, as well as for many physicians in private practice from outlying areas. He was often the physician whom corporation executives, star athletes, leading performers and other physicians throughout the metropolitan area sought out for their own care. He practiced conservative medicine in an environment that sometimes pressures even the best physicians to recommend procedures and treatments that are well-reimbursed, over those that may be less glamorous and less remunerative, but equally effective. In adhering to his own principles by recommending what was best for his patients over what was best for himself, he exemplified the highest standards of medical professionalism. ●

—Joel A. DeLisa, MD, MS, Chair, Department of Physical Medicine and Rehabilitation, NJMS

Honoring Retired Faculty

LAST FALL, NEW JERSEY MEDICAL SCHOOL (NJMS) held its first Retired Faculty Luncheon in commemoration of the school's 50th anniversary celebration. The event was coordinated in partnership with the Foundation of UMDNJ.

Dean Russell T. Joffe, MD, discussed the future of NJMS and the importance of connecting with retired faculty. Guests also heard remarks by Francis P. Chinard, MD, Emeritus Distinguished Professor of Research Medicine and Physiology, and George Heinrich, MD, chairman and CEO of the UMDNJ Foundation and vice president, finance, NJMS Alumni Association. ●



Left to right: Dr. Francis P. Chinard, Dr. Christos Moschos, Josephine Chinard, Edward Pagan, Joan Pagan, Dr. Sheila Bender and Dr. Ana Seebode.



Introducing Some Stellar 2005 Grads

Identical twin doctors who chose twin career paths. A Jersey City police officer turned physician in his mid-30s. A young woman who volunteered a year of her life to make healthcare in Central America and Africa a notch better than it had been. These are just four among the stellar 2005 graduates of New Jersey Medical School.

May 2005 was a month to remember in their calendar of years—an end of a chapter, but the beginning of a new and critical one in their careers. With MD degrees in hand, they leave their alma mater—equipped to practice medicine. Most will move on to residencies, many in New Jersey and others in programs across the country.

Here we provide you with short profiles of just a few NJMS graduates from the class of 2005.



provide family planning programs and to help build a community center that will house future volunteers and also serve as the village's library and resource center. Then she went on to Guatemala, where she worked with a local physician who runs a free medical clinic out of homes and churches in the countryside. Her last stop was Mexico, where she volunteered with an organization providing health services and education to women and teenagers. Her post-graduation plans also include some travel, although not beyond the U.S. borders. She will enter an internal medicine residency program at the University of California in San Francisco.

AT FIRST GLANCE, the professional life of a Jersey City police officer and that of a physician may appear to have little in common. Not so to Terrence Curran, 35, of Jersey City, who says, from personal experience, that the similarities are glaring. You're "on call" to help those in



FOR THOSE WHO KNOW THEM it's no surprise that Mark and Michael Arcaro, 28, of Cream Ridge, are graduating NJMS together. They are not only identical twins but close friends who, throughout their lives, have done most everything together. In high school they played on the same sports teams and they attended the College of New Jersey together, where they both majored in chemistry.

They so closely resemble each other that Michael volunteered to grow a beard to help minimize the confusion when they were assigned to the same clinical rotation. After graduation, they will continue their journey together—to UMDNJ-Robert Wood Johnson Medical School (RWJMS) in New Brunswick for a residency program in internal medicine. Their future plans? It's a "no brainer"—they plan to establish a joint medical practice.

NICOLE SIROTIN, 28, of Hackensack, set her sights on some faraway places. After her third year at NJMS, she stretched her student scholar elective to a full year, volunteering with an international student medical association. Her first stop was Ghana, where she worked with community leaders in a small village to



difficult situations, he points out, and the ability to listen with understanding and empathy go a long way. Curran's father recently retired after 34 years on the force and it certainly appeared that "like father, like son" would be their motto. It was Terrence's positive memories about his basic medical training when he served in the U.S. Marines after high school that inspired him to go back to school. That and the encouragement of his brother, who is an oncologist, helped land him a spot at NJMS after completing his science prerequisites. Not one to bow out of public service, he has been a member of the Jersey City Board of Education since 2001. The new doctor will continue his training in the surgical residency program at RWJMS.

GRADUATION DAY CEREMONIES on Wednesday, May 25, at the PNC Bank Arts Center in Holmdel also included the granting of Distinguished Alumnus awards to four individuals, including Vice Admiral Donald Arthur, who holds degrees in medicine, law and healthcare management. He is a 1978 alum of NJMS who has gone on to become the 35th Surgeon General of the U.S. Navy and Chief of its Bureau of Medicine and Surgery, a position he has held since 2004. Just before his recent appointment to the top post in the medicine office of the Navy, he commanded the Naval Medical Center in Bethesda. He has earned the Navy Distinguished Service Medal, four Legions of Merit, three Meritorious Service Medals, three Navy Commendation Medals and a Navy and Marine Corps Achievement Medal. Those who knew him in medical school will be glad to know that he is still a motorcycle enthusiast and has not abandoned the open road. ●

Does the Future Look Bright or Dark?

A **MERICANS ARE OVERWHELMINGLY OPTIMISTIC** about their own futures but many maintain a grim view of the world's future, anticipating a nuclear or biological war to break out during the next 20 years, according to the results of a national survey that sampled some 2,000 adults ranging in age from 18 to 65 years and older. Those interviewed had lofty personal expectations but cast a wary eye on the welfare of America, said Donald B. Louria, MD, the survey's lead investigator. He delivered the findings on May 17 before conference members of the Nuclear Policy Research Institute in Washington, D.C. The survey was funded through a grant by ShopRite.

"What amazed us most was their determined optimism, although 72 percent said they believed there would be a biologic weapons attack against civilians and 56 percent thought a nuclear weapon attack would occur," said Louria, chairman emeritus of the Department of Preventive Medicine at New Jersey Medical School.

"We believe this personal optimism is sort of a last barricade, and that the optimism may be shaky," he added. "If it is challenged by a catastrophic event, such as another terrorist attack on United States soil, a widespread infectious disease epidemic or a serious economic crisis,

we could see a rapid decline in optimism and faith in the future."

"Downward trends in personal optimism could well be a harbinger of behavioral changes that could be of perilous consequence for individuals and for society overall," Louria said. "Those in leadership positions in our society, as well as educators, should particularly pay close attention to future trends."

Other notable findings were that blacks are less optimistic than whites and more concerned about the potential for nuclear war. Also, those with strong religious ties are more optimistic both about their own and the world's future. The greater the educational achievement, the greater the concern for global issues among those age 18 to 24 and older than 65. ●





An American Voice

WHEN HE'S NOT DOCTORING, NJMS alum Jonathan Steinhart (class of 1976) makes beautiful music. He has recorded and produced a CD called "American Voices." It is a haunting mix of country, gospel and folk songs, the same genre of music that was introduced to a generation of listeners in the movie *Cold Mountain*.

Steinhart's "partners in song" are his wife, Ashley, a former physics professor and classical violinist, and their friend, Linda Jaussi. Ashley Steinhart played with the San Juan Symphony until the birth of twin sons in July 2004. The Drs. Steinhart make their home in Shiprock, NM, on the Navajo reservation. "She's now making the crossover to fiddler," says Steinhart. Jaussi is a music teacher and composer.

Steinhart's interest in music goes back to his childhood. He says, "I don't have a formal degree in music, but I've always loved to sing. I've been involved with all kinds of groups: glee clubs, choirs, and barbershop, and I've also studied voice, guitar, piano, violin and recorder."

The songs on the CD are a mix of old and new. A few have their roots in British ballads that were brought to the Appalachians, the South and the West by 19th century pioneers. "Some of the hymns are examples of shaped note singing, a musical tradition popular in the mid-19th century," says Steinhart.

Steinhart and Jaussi sing the vocal leads on the CD. He does the guitar work and Jaussi plays the keyboard. Ashley Steinhart plays the fiddle and recorder and sings backup lyrics. All the songs were recorded in music studios in Durango, NM, and Phoenix.

"The actual production of a CD is

fairly easy these days," says Steinhart. "What's important is to have a good musical product and recording studio, but once that is done, it's essentially desktop publishing with a computer and CD burner." The three burned the CDs themselves, and Steinhart wrote the liner notes.

Steinhart's "day job" is with the United States Public Health Service (USPHS), in which he is a commissioned officer, holding the rank of captain. "USPHS goes by Navy ranks," he explains. He has worked for the Indian Health Service, an agency of the USPHS, for the past 24 years, the last 19 of them in Shiprock. He's on the staff of Northern Navajo Medical Center (NNMC), a small, rural general



hospital on the reservation. His patients are almost exclusively Navajo and Ute Native Americans.

Though he is board-certified in both family medicine and obstetrics and gynecology, Steinhart's practice at NNMC is primarily ob/gyn. He also holds a Master's degree in public health and has done research and published on gestational diabetes.

"American Voices" is available by mail order for \$15 through the Steinharts. For information, e-mail steinhart@frontiernet.net. ●

UMDNJ Students Raise Funds for Tsunami Relief

WHILE MOST STUDENTS WERE ON HOLIDAY BREAK LAST WINTER, a tragedy occurred halfway across the world. As news spread of the powerful earthquake and resulting tsunami, people from all over took part in the relief effort. Students on UMDNJ's Newark campus were no exception.

Student leaders from the New Jersey Medical School (NJMS) S.H.A.R.E. Center, the School of Public Health (SPH) Student Government Association, the NJMS American Association of Physicians of Indian Origin (AAPI), and the New Jersey Dental School (NJDS) Indian Student Dental Association (ISDA) organized the UMDNJ-Newark Tsunami Relief Coalition. Other student volunteer groups were also involved in the relief efforts. Over the past several months, various volunteer groups have held several fund-raisers, including food sales, a dinner dance, and a date auction.

To date, the Coalition has raised more than \$20,000 to help the tsunami victims. "This success was due to the generosity of the UMDNJ community," says Ankitkumar Patel, NJMS and SPH'07, one of the student organizers. "Students, faculty, and staff donated \$5 when they could have donated a dollar, and \$20 when they could have given \$5." ●

Book Reviews

Biohazard 9-1-1

by Mark Kortepeter, MD, MPH
PublishAmerica

WILL DENTON, A FORMER ARMY PHYSICIAN, reluctantly takes over his father's small-town medical practice in the Adirondacks. Soon after, local children begin dying of a horrific disease. As the epidemic spreads, panic grows, especially when Denton fears that he and others may already be infected. He teams up with his father's nurse and a former colleague from the Army's biological warfare defense labs to investigate the cause of the disease and attempt to control it before it becomes a global crisis.

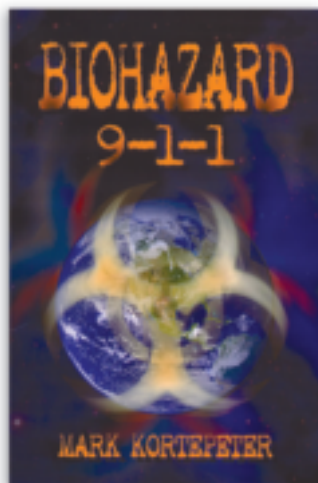
About the author: Mark Kortepeter earned his BA degree from Harvard University, his MD degree from NJMS, Class of 1988, and an MPH from Harvard's School of Public Health. He is an expert on medical defenses against bioterrorism and infectious diseases with field experience in Bosnia and Kuwait.

Physical Medicine & Rehabilitation: Principles and Practice, 4th Edition

by Joel A. DeLisa, MD, MS, Bruce M. Gans, MD, MS, Nicolas Walsh, MD, William Bockenek, MD, Walter Frontera, MD, PhD, Lynn Gerber, MD, Steve Geiringer, MD, William Pease, MD, Lawrence Robinson, MD, Jay Smith, MD, Todd P. Stitik, MD, and Ross Zafonte, DO
Lippincott Williams & Wilkins

THIS TWO-VOLUME SET, considered the gold-standard in physical medicine and rehabilitation, is now in its fourth edition. The text has been updated, providing an additional clinical focus from more than 150 expert contributors worldwide. Each chapter is a collaborative effort by authors chosen for their expertise in a given topic.

About the editors: Joel DeLisa is chair and professor of physical medicine and rehabilitation (PM & R) at NJMS, and president and chief executive officer of the Kessler Medical



Rehabilitation Research and Education Corporation. Gans is a professor in PM & R at NJMS and chief medical officer at the Kessler Institute for Rehabilitation.

Contributing NJMS authors include Drs. Michael Armento, John Bach, Champa Bid, Jay Bowen, Boquin Chen, Nancy Chiaravalloti, Ann Cotter, Martin Diamond, Elie Elovic, Patrick Foye, Mark Johnston, Steven Kirshblum, Robert Klecz, David Kuo, Todd Linsenmeyer, Gerald Malanga, Scott Millis, Scott Nadler, Shailesh Parikh, Mitchell Rosenthal, Sue Ann Sisto, Doreen Stiskal, Todd Stitik and David Tulskey. Contributing Robert Wood Johnson Medical School authors are Drs. Sarah Schuler and Heikki Uustal.



Joel A. DeLisa,
MD, MS

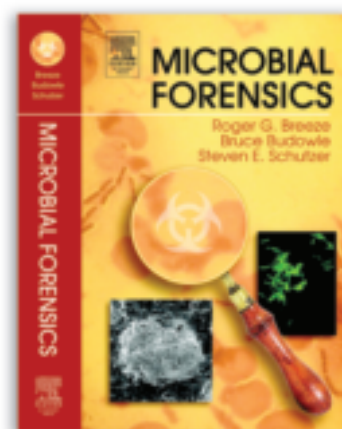
Microbial Forensics

by Roger G. Breeze, PhD, Bruce Budowle, PhD, and Steven Schutzer, MD
Elsevier Science & Technology Books/Academic Press

THIS 448-PAGE TEXT, called the first of its kind, is the result of collaborations with scientists from several academic and government institutions, including the FBI and U.S. Department of Homeland Security. It describes the new and growing field of microbial forensics and the science that can help bring to justice terrorists who use biological weapons.

"The book defines the foundation of the field of microbial forensics and will serve as a basic primer to initiate those scientists and officials who have an interest in the topic," says Schutzer.

About the authors: Steven Schutzer is an associate professor in the Department of Medicine at NJMS. Bruce Budowle is a senior scientist with the FBI; Roger Breeze is with the Centaur Science Group. ●



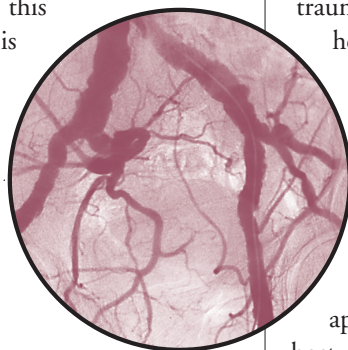


Qureshi's Mission: To Stop Strokes

FOR THE MONTH OF MAY, the message in the glass showcase on C Level of University Hospital (UH) was loud and clear: "Time is Brain." With pictures, testimonials, health tips and lessons in why early signs of a stroke should never be dismissed or ignored, Adnan I. Qureshi, MD, director of the Cerebrovascular Program at University Hospital (UH) was advancing a medical mission begun when he was just a teenager. Qureshi's mother, Zeenat Qureshi, died of a stroke then and that personal experience has proven to be pivotal in his life.

Besides dedicating his career to the understanding and treatment of these brain attacks, Qureshi, a NJMS professor of neurology and neurosciences, recently donated \$250,000 to establish a stroke research center in his mother's name at UH which is committed to finding new and more effective therapy options, to training researchers and stroke specialists, and to educating the public about stroke. The Zeenat Qureshi Stroke Research Center (ZQSRC) "is a dream come true for my family," he said.

For patients like Connecticut resident Mary M. Alapa, whose framed, heartfelt thank you letter stood out in the "May is Stroke Month" UH exhibit, this state of the art cerebrovascular program is more than just a dream. It was a life-saver last summer. Alapa was in New



Operating within the NJMS Department of Neurology and Neurosciences, the newly established stroke center at University Hospital conducts epidemiological, clinical, and cerebrovascular research.



Left to right: Adnan I. Qureshi, MD, and Afshin Divani, PhD

Jersey visiting her son when she exhibited stroke symptoms. Rushed to UH, Alapa was placed in the care of the stroke trauma intervention team which wasted no time and saved her from the stroke as well as the threat of long-lasting disabilities. This service is available 24 hours a day and is now drawing patients from throughout New Jersey and other hospital emergency rooms. Alapa counts herself lucky to have been a visitor when she got sick. "Stroke is a killer and a crippler, but today I am back at work (for a car dealership) carrying out my normal daily routines with no loss of function due to the rapid, appropriate, professional, and compassionate care by a host of doctors, nurses, technicians, physical therapists, social workers and a multitude of others."

Afshin Divani, PhD, director of the center and NJMS assistant professor of neurology and neurosciences, enjoys feedback like Alapa's. "Stroke is a sophisticated disease that requires a multidisciplinary team of researchers and clinicians to combat it." Operating within the NJMS Department of Neurology and Neurosciences, the center conducts epidemiological, clinical, and cerebrovascular research. ZQSRC also has laboratories for imaging and angiography. In fact, teams from Johnson &

Johnson, Ortho-Biotech, Pharmaceutical Research & Development and Protein Design Labs visited to explore opportunities to collaborate with NJMS/UH. Divani reports, "They can see the potential for clinical trials, joint research and educational programs." The center also sponsors educational activities such as a distinguished lecture series on cardiovascular diseases and an annual vascular neurology review course.

Annual grant revenue is expected to grow from \$1 million to \$2 million, according to Divani. The center, which has been collaborating on a National Institutes of Health (NIH) Specialized Program of Translational Research in Acute Stroke

1-866-27-STROKE (7-8765)

is a hotline for physicians' use only, answered by the UH Emergency Medical System (EMS) dispatch center and designed to expedite patient transfers from other hospitals or directly from the field in acute stroke situations.

(SPOTRIAS) and the NIH carotid artery stent clinical trial known as CREST, is headquartered at NJMS. Since June 2004, when the center opened, the Qureshi group of 17 experts and 10 medical students has presented research findings at national, international and local conferences on more than 100 occasions and treated 391 stroke patients, including 48 who were able to receive the newest drugs and devices.

Divani is proud of a University Healthsystems Consortium (UHC) performance rating of "Best" among leading university hospitals administering t-PA (tissue Plasminogen Activator, which unclogs blocked vessels) to appropriate candidates. "We were also given special recognition because of providing service to a multi-ethnic community with diverse challenges." The team received the "Community Service Award for 2005" from the American Medical Association (AMA). Individual members have also been chosen for recognition, including Jawad Kirmani, MD, for the AMA Foundation Leadership Award, Pansy Harris-Lane, MSN, RN, for the 2005 Governor's Nursing Merit Award and Qureshi for an Excellence in Care Award. ●



Fall Convocation at NJMS

"CELEBRATING OUR SUCCESS" is the theme of the year-long celebration of the 50th anniversary of New Jersey Medical School. The milestone was marked with several commemorative events, beginning with the first Fall Convocation, held to recognize faculty accomplishments. More than 100 newly appointed, promoted and tenured faculty were honored.



(ABOVE) Left to right: UMDNJ President John Petillo, PhD, former NJMS Dean Ruy V. Lourenco, MD, Dean Russell T. Joffe, MD, former Dean Harold Kaminetzky, MD, and former Interim Dean Joel DeLisa, MD.

(LEFT) Processional, right to left: Drs. Kenneth Swan, co-chair of 50th Anniversary Committee; John W. Katz'75; Russell T. Joffe, MD, The Sharon and Joseph L. Muscarelle Endowed Dean.



Calling All “Geniuses”

The work of a New Jersey Medical School faculty member is never done. Beyond teaching, clinical care, research and administrative responsibilities, an array of other professional activities beckon. Faculty members write articles for publication in major journals, compile textbooks and prepare presentations for national and international conferences. Read just a smattering of these accomplishments listed on these pages.

Publications

“Latinas and HIV/AIDS Risk Factors: Implications for Harm Reduction Strategies” by RE Zambrana, LJ Cornelius, SS Boykin and D Salas-Lopez, is in the *American Journal of Public Health* 2004; 94(7): 1152–1158.

“Cultural Competency as it Intersects with Racial, Ethnic, Linguistic, and Class Disparities in Managed Healthcare Organizations” by RE Zambrana, C Molnar, HB Munoz and D Salas-Lopez is in the *American Journal of Managed Care*, 2004; 10:SP37–SP44.

“Antecedents to Effective Treatment of Hypertension in Hispanic Populations” by ML Soto-Greene, D Salas-Lopez, J Sanchez and RC Like is in *Clinical Cornerstone* 2004; 6(3): 30–38.

“Assessment of the Utilization of a State AIDS/STD Hotline by Persons With and Without HIV Infection and Their Information Needs” by ZP Vassilev, S Marcus, T Jennis, B Ruck and G Rego is in *AIDS Patient Care and STDs* (in press).

“Case of Elevated Blood Lead in a South Asian Family That Has Used Sindoof for Food Coloring” by ZP Vassilev, SM Marcus, K Ayyanathan, V Ciuffo, JD Bogden, FW Kemp, B Ruck, T Jennis, N Jani, and W Halperin is in the *Journal of Toxicology Clinical Toxicology*, Vol. 43(5) (in press).

“Seasonal Changes in Poisoning Exposures Reported to a Regional Poison Center from Coastal Resort Areas” by ZP Vassilev and SM Marcus is in the *Journal of Toxicology and Environmental Health Part A*, Vol. 66 (20): 1905–1908 (2005).

“Provision of On-site Medical Care to Patients with Hepatitis C in Drug Treatment Units” by ZP Vassilev, SM Strauss, JM Astone, PD Friedmann and DC Des Jarlais is in the *Journal of Health Care for the Poor and Underserved*, Vol. 15 (4): 663–671 (2004).

“Injection Drug Users and the Provision of Hepatitis C-Related Services in a Nationwide Sample of Drug Treatment Programs” by ZP Vassilev, SM Strauss, JA Astone and DC Des Jarlais, is in the *Journal*

of Behavioral Health Services & Research, Vol. 31(2): 208–216 (2004).

“Paintball Injuries in Children: The Cases Managed out of Hospitals” by ZP Vassilev and S Marcus is in *Pediatrics*, Vol. 113 (5): 1468 (2004).

“Relief of Expressed Suicidal Intent by ECT: A Consortium for Research in ECT Study” by Charles H Kellner, et al, is in the *American Journal of Psychiatry*, 162: 977–982, May 2005.

Stanley Cohen was interviewed for an article entitled “Cytokine: more than a new word, a new concept proposed by Stanley Cohen thirty years ago,” in *Cytokine*, Vol. 28, 2004.

“Reduced cardiac parasympathetic activity in children with autism” by Xue Ming, Peter OO Julu, Michael Brimacombe, Susan Connor and Mary L Daniels is in the journal *Brain & Development* (in press).

“Management of an Ascending Aortic Aneurysm with Coronary Artery Disease and Tracheal Compression from a Substernal Goiter” by Michael C Banker, Justin Sambol and Suresh Raina is in the *Journal of Cardiac Surgery* 2005, Vol. 20: 177–179.

“Carotid Artery Stenting: A Need To Revise Ultrasound Velocity Criteria?” by BK Lal, RW Hobson, J Goldstein, E Chakhtoura and WN Duran is in the *Journal of Vascular Surgery* 2004, Vol. 39: 58–66.

“Are Germinal Inclusion Cysts Markers of Ovulation?” by DS Heller, P Murphy and CW Westhoff is in *Gynecologic Oncology*, 2005; 96: 496–9.

“Gender Differences in Adolescent and Young Adult Predictors of Later Intimate Partner Violence: A Prospective Study” by Ping-Hsin Chen and Helene Raskin White was published in *Violence Against Women*, 2004; 10: 1283–1301.

“Latinas and HIV/AIDS Risk Factors: Implications for Harm Reduction Strategies” by RE Zambrana, LJ Cornelius, SS Boykin and D Salas-Lopez was in the *American Journal of Public Health*, Vol. 94, 2004.

“Cultural Competency as it Intersects with Racial, Ethnic, Linguistic, and Class Disparities in Managed Healthcare Organizations” by R Zambrana, C Molnar,

HB Munoz and D Salas-Lopez, is in the *American Journal of Managed Care*, 2004; 10:Spec No: SP37–44.

“Absence of secretory endometrium after false-positive home urine luteinizing hormone testing” by PG McGovern, ER Myers, S Silva, C Coutifaris, SA Carson, RS Legro, WD Schlaff, BA Carr, MP Steinkampf, LC Giudice, PC Leppert and MP Diamond was in *Fertility and Sterility* 2004; 82: 1273–7.

“Increased risk of preterm birth in singleton pregnancies resulting from in vitro fertilization-embryo transfer or gamete intrafallopian transfer: a meta-analysis” by PG McGovern, AJ Llorens, JH Skurnick, G Weiss and LT Goldsmith was in *Fertility and Sterility* 2004; 82: 1514020.

“The unreliability of home urine luteinizing hormone test kits has important implications for clinical practice” by PG McGovern was in *Fertility and Sterility* 2004; 82: 1300.

Professional Activities

C Brazeau, J Washington and J Crosson, presented “Assessment of Preceptor and Teaching Style during the Third Year Family Medicine Clerkship” at the 31st Annual Predoctoral Education Conference of the Society of Teachers of Family Medicine, January 27–30, 2005, in Albuquerque, NM.

J Washington, J Crosson and C Brazeau presented “Developing a Departmental Examination for a Third Year Family Medicine Clerkship” at the 31st Annual Predoctoral Education Conference of the Society of Teachers of Family Medicine, January 27–30, 2005, in Albuquerque, NM.

J Washington, C Brazeau, and J Crosson presented “Assessing the Computer Skills and Needs of Our Community Preceptors” at the 31st Annual Predoctoral Education Conference of the Society of Teachers of Family Medicine, January 27–30, 2005, in Albuquerque, NM.

A Barash and C Brazeau presented “A National STFM Predoc Collaboration to Enhance Medical Student Assessment” at the 31st Annual Predoctoral Education Conference of the Society of Teachers of Family Medicine, January 27–30, 2005, in Albuquerque, NM.

Jeff Catrambone gave two recent presentations: the use of intraoperative MRI in pediatric neurosurgery and the use of non-invasive means, a scanning laser ophthalmoscopy to study important neurological disorders.

K Brajesh and MD Lal presented “Duplex Scanning for Carotid Stents” at the Vascular Society of New Jersey annual meeting in Summit, NJ in March. Guidelines for post-stenting follow-up with duplex ultrasound were also presented.

K Brajesh and MD Lal presented “Carotid plaque morphology: is it ready for prime time?” at the Eastern Vascular Society, 19th annual meeting in Pittsburgh, PA in May.

D Heller presented a workshop entitled “Pediatric Gynecologic Pathology with Clinicopathologic Correlations” at the Society for Pediatric Pathology’s spring meeting in February in San Antonio, TX.

PG McGovern made a presentation entitled “Female age and estrogen level predict success of gonadotropin-intrauterine insemination therapy for infertility and early Beta-HCG levels predict pregnancy outcome after IVF” at the Annual Meeting of the Society for Gynecologic Investigation, Los Angeles, CA, March 2005.

D Salas-Lopez and A Natale-Pereira presented “Teaching and Integrating Cultural Competency into Medical Education and Practice” at the Mid-Atlantic Society of General Internal Medicine, Annual Regional Meeting, New York, NY, March 2005.

A Natale-Pereira presented “Factors That Influence Colorectal Cancer Screening in the Latino Community” at the 2005 Annual Retreat on Cancer Research, Princeton, NJ, April 2005.

Grants

Xue Ming received an \$81,000 grant from the Cure Autism Now Foundation for the study of oxidative stress in autism.

Books

D Heller, MD, professor, O Faye-Petersen, VV Joshi, *Handbook of Placental Pathology*, 2nd edition, CRC Press. (in press) ●



FROM RUSSIA

WITH LOVE & SKILL

BY MARY ANN LITTELL

FEW INJURIES ARE MORE HORRIFIC than the amputation of a limb. But the unthinkable sometimes happens, the tragic result of industrial accidents, mishaps with power tools, automobile collisions and other calamities.

For an adult to have to deal with such a catastrophe is difficult enough. But when it happens to a child, it is beyond unthinkable. In April, 12 year old Konnor Episcopo of Summit, NJ, was finishing a woodworking project with his father when his left forearm was severed by a saw a few inches above the wrist. His father describes it as a “freak accident.”

Konnor was rushed to Overlook Hospital in Summit, where the resident on call took one look and called the Emergency Department at UMDNJ–University Hospital (UH). It was clearly an injury that required the services of a specialized trauma center. The Overlook resident conferred with a resident at UH, who then called Ramazi Datiashvili, MD, director of Microsurgery and Replantation at UH. The surgeon, who specializes in reattachment of amputated limbs and digits, was in his office at the Doctors Office Center, located right next to the hospital.

The resident asked Datiashvili what to do about the patient. “Send him here,” the surgeon replied. Thus far, it had been a routine day, but not any more.

Datiashvili met Konnor and his distraught parents in the UH Emergency Department. The boy's limp, pallid hand was still attached to the forearm by a tiny piece of skin. "It was a terrible injury. Much of the tissue was crushed, and there was a lot of damage to blood vessels, nerves, and tendons," Datiashvili says. "It would be a tremendous challenge, but I thought we could reattach it. I said to the family, 'Be optimistic. There is hope.'"

He should know. The surgeon, an émigré from Russia, is an expert in his field. "Dr. D," as he is known to his office staff as well as the interns and residents he teaches, has performed hundreds of replantation procedures over the course of his career. While finger and toe amputations are a common injury, forearm amputations are rare. In fact, this was the first one Datiashvili had seen since coming to UH five years ago.

Konnor's injury was serious, but Datiashvili had treated other, even more devastating injuries. Many years ago in Russia, as a young surgeon, he performed a groundbreaking procedure that made him famous. The patient was also a child. The drama of this reconstructive surgery gripped all of Russia. It put him on television and on magazine covers, which hang on his office walls.

The Ultimate Challenge

Turn the clock back to 1976. Ramazi Datiashvili was 25 years old, a young physician in Russia. After finishing medical school he was recruited to be part of an elite medical team: the first microsurgical department in the Soviet Union. The group, based in Moscow, would provide the entire country with highly specialized medical services: replantation of amputated extremities and other reconstructive procedures.

"It was a tremendous honor to be selected for this training," he says. "Patients came to us from all over Russia, from as far away as Siberia. The work was extremely challenging and required a great deal of creativity."

After his training was completed, he remained in Moscow at a city hospital. By age 28, he was chief of its Microsurgery Department. In 1981, he accepted a new position—Junior Scientific Worker at the National Research Center of Surgery, a renowned academic medical center in Moscow.

In 1983, Datiashvili faced the surgical challenge of a lifetime. A baby girl from Lithuania was run over by a tractor, and both her legs were amputated below the knees. The child, named Rassa ("Last name too long! Too complicated!" Datiashvili says with a wave of his hand), was transported to a local hospital, but the injury needed more expert care than they were able to provide. So she was transported by military aircraft to Moscow.

Rassa's plight was seen as a lost cause. "None of the doctors

wanted to do this surgery," recalls Datiashvili. "Even my bosses, all highly skilled, refused. I was the only one. How could I say no? It's what I had been trained for." Such a procedure—bilateral reattachment of the lower extremities in a baby—had never been performed before.

Because Rassa was a child, the surgeon could not operate on her in his own facility. He had to move her to a central children's hospital. Initially, the hospital refused to take the case. It took several pleading phone calls and hours of negotiating to convince them.

The child was prepared for surgery and anesthetized when Datiashvili realized he had another crisis on his hands. The microscope he needed was locked away and no one had the key. He refused to start without the microscope, and a key was finally located.

"I was exhausted and very fearful," he continues. "Time is of the essence in these cases, and here we were, with constant delays. But finally, I did the operation, and it was successful."

Datiashvili is cited in the medical literature as the first to perform this procedure. It catapulted him into celebrity. A prominent Russian magazine named him Man of the Year, and he was the subject of three documentaries. He was asked to speak at universities around the world, and in 1988, was part of a five-person delegation of Soviet microsurgeons who traveled to the U.S. as honorary guest lecturers.

But he found fame to be a huge psychological burden. "I was young and a junior surgeon," he recalls. "All this attention felt unnatural and led to a lot of jealousy. Every eye was on me. I had to prove it was not an accidental success. I just continued to work hard and kept my dignity. In that way I earned the respect of my colleagues."

In 1991, he was promoted to the highest academic rank: Chief Scientific Worker. He had also earned several academic degrees, including the Candidate of Medical Sciences (similar to an American PhD) and the Doctor of Medical Sciences (comparable to a full professorship). He wrote textbooks and had more than 70 articles published, including nine in American journals. By age 41, he had attained the professional success that many only dream about.

Despite his success, life in Russia was difficult. For years, Datiashvili and his wife had contemplated leaving Russia for the United States. When asked why, he says simply, "Fish swim to where the water is deeper. Human beings go where life is better."

Elaborating, he says, "We had an interesting, full life in Russia. It was very rich intellectually and culturally, but not comfortable materially. Also, we wanted freedom. So we decided to go some-



THE FOREARM OF 12-YEAR-OLD KONNOR EPISCOPO was severed with a chain saw in April. He was brought to UMDNJ–University Hospital for replantation surgery.

KONNOR EPISCOPO, POST SURGERY. The procedure involved reattaching 18 tendons, four blood vessels, three nerves and the two bones of the forearm.



Skin grafting of a wound after excision of a large lesion.

Following the surgery, Konnor Episcopo was able to move his fingers, and a few days later, was even able to give his physician a modified “high five.” “It was so gratifying to be able to help this child,” Datiashvili says. “When I saw his hand turn pink, I was very happy.”

where else, where we would find freedom and a more open society.”

Two of the surgeon’s brothers had emigrated to the United States in the 1980s, both settling in Staten Island, NY. For years they had encouraged their brother to join them. In 1992, Datiashvili, his wife, their 3-year-old daughter and his elderly parents decided they were finally ready to go. Datiashvili’s colleagues were stunned when he told them of his decision to leave, but his mind was made up.

Climbing The Hill

They settled in Staten Island, near their family, and Datiashvili began the long, arduous task of earning an American medical license. He spoke no English. He took classes, read the dictionary voraciously, learned vocabulary from TV shows, and tried to adjust to a new environment. “It was very difficult,” he says. “I came here at age 42, at the top of my career, and had to start all over. It was like I had climbed a hill, and then fell down and had to climb it again.”

It took a few years to learn English and pass all the tests he needed for medical licensure—including courses like microbiology and biochemistry, which he had not studied for years. His knowledge of these subjects was understandably rusty. He had to re-learn the material, and in a new language, too. “If I had known how hard it would be, I’m not sure I would have come here,” he admits. But his expertise did not go unrecognized. Despite his lack of a U.S. medical license, he was invited to be a visiting professor at New York University Medical Center, Harvard Medical School, and Mt. Sinai School of Medicine.

In 1996, Datiashvili began a three-year residency in general surgery at Mt. Sinai School of Medicine. While some might question the wisdom of having such a highly skilled surgeon go through all this training, “rules are rules,” he says.

As a second-year resident, he received a phone call one day from a surgical resident at a hospital in Queens, NY. A 7-year-old girl with an almost complete amputation of the arm had been brought in, and the attending surgeons were struggling with the replantation procedure. Could he help? He had just finished being on call, but he drove to Queens to complete the surgery.

Following his general surgery residency, Datiashvili did a two-year residency in plastic surgery at New Jersey Medical School—and found his new professional home. “I immediately felt that

I belonged here,” he says. After his residency, he stayed at NJMS, joining the faculty as an assistant professor of surgery.

“I could have gone into private practice, but it was my choice to be at an academic

medical center,” he says. “This is a great place to be, and my work here is very interesting. There is teaching, attending conferences, the trauma work, being at the clinic. No day is the same.”

Life is good for Datiashvili and his family. They have remained in Staten Island, where there is a substantial Russian community. His daughter, now 20, is a student at the John Jay School of Criminal Justice in New York City. The family had an opportunity to take their first trip to Europe last year. “It was wonderful, and we enjoyed it,” he says. “But for us, there is no better place in the world than the U.S. We love this country.”

Being part of a busy trauma center offers many opportunities to treat challenging cases, like that of Konnor Episcopo. The child’s arm was reattached in a grueling, 12-hour procedure. It involved reattaching 18 tendons, four blood vessels, and three nerves; the two bones of the forearm were aligned and secured with pins. Datiashvili was assisted by residents Roshini Gopinathan and Matthew Trovato, as well as other members of the surgical team.

Following the surgery, the boy was able to move his fingers, and a few days later, was even able to give his physician a modified “high five.” After extensive rehabilitation, it’s anticipated that he should have good mobility—enough to enjoy trout fishing and fixing things, his favorite activities.

“It was so gratifying to be able to help this child,” he says. “When I saw his hand turn pink, I was very happy.”

And what of his other patient, Rassa? Datiashvili says she made a complete recovery. Today, she is a young woman in her 20s. “I’ve heard she wears stiletto heels and participated in a dance marathon,” Datiashvili says, laughing. “What a great testament to my surgical skills! Of course, I don’t know if it is true.”

He kept in touch with her for years, but the connection was lost when he moved to the United States. “I would really like to know how she is doing,” he adds. “I tried to reach her through the Lithuanian embassy, but they were unable to help me.”

“I had a dream,” he continues. “Oprah invited me to be on her show. We talk, and then she says she has a surprise for me. She points over to a door. Someone comes on stage, and I see that it is Rassa. So we are reunited. Maybe it will happen someday.” ●

Making A Difference

By Mary Ann Littell

JACLYN RUGGIERO WAS INSPIRED to go into medicine because she wanted to make a difference. Now 25, she's at New Jersey Medical School, living her dream: studying medicine in an urban environment. A third-generation Italian-American, she is only the second member of her large, close-knit extended family to attend graduate professional school.

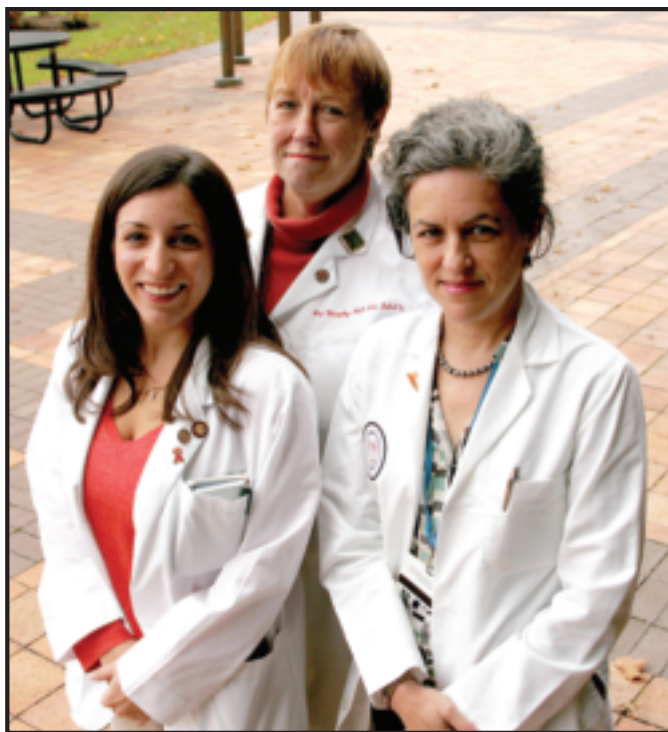
"My parents were the children of immigrants," she says. "They didn't have the opportunity to get this type of education, so I don't take it for granted. It's a privilege to be here."

Ruggiero has always been a high achiever, graduating from Hackensack High School in the top 2 percent of her senior class and receiving a scholarship to The College of New Jersey. As a third year medical student, she continues to excel. In October 2004 she received the Medical Society of New Jersey Alliance and the AMA Foundation Scholarship, usually given to fourth-year students. It was awarded to Ruggiero for her academic achievement and commitment to the school and community. She's the recipient of several other scholarships as well, including the Dr. Benjamin Cottone Memorial Scholarship, a national award for post-graduate work in medicine, and the Columbian Foundation Scholarship. She's also an active member of the NJMS Student Council and the American Medical Women's Association.

In her second year Ruggiero was part of a research team studying end-of-life and palliative care issues in the surgical intensive care unit (SICU) of UMDNJ-University Hospital (UH). The primary investigators for the study are Anne Mosenthal, MD, associate professor of surgery at NJMS and director of the SICU, and Patricia Murphy, RN, PhD, an ethicist and advanced practice nurse who heads up the Bereavement and Family Support Services at UH. They have received several grants to develop a palliative care program in the trauma/surgical ICU setting.

As part of the team, Ruggiero helped evaluate symptom management in the SICU. She spoke to nurses and residents caring for patients within 24 hours of their death, and followed up with the patients' families by calling them and asking about the death experience.

Ruggiero describes Mosenthal and Murphy as her mentors. "Their passion for their research is inspiring," she says. "Dr. Mosenthal's accomplishments as a female trauma surgeon and



Left to right: Medical student Jaclyn Ruggiero, Patricia Murphy, RN, PhD, and Anne Mosenthal, MD

active researcher are motivation for anyone. Dr. Murphy is upbeat and positive, even though her job is so tough and her cases so critical. She encourages us to be involved and learn."

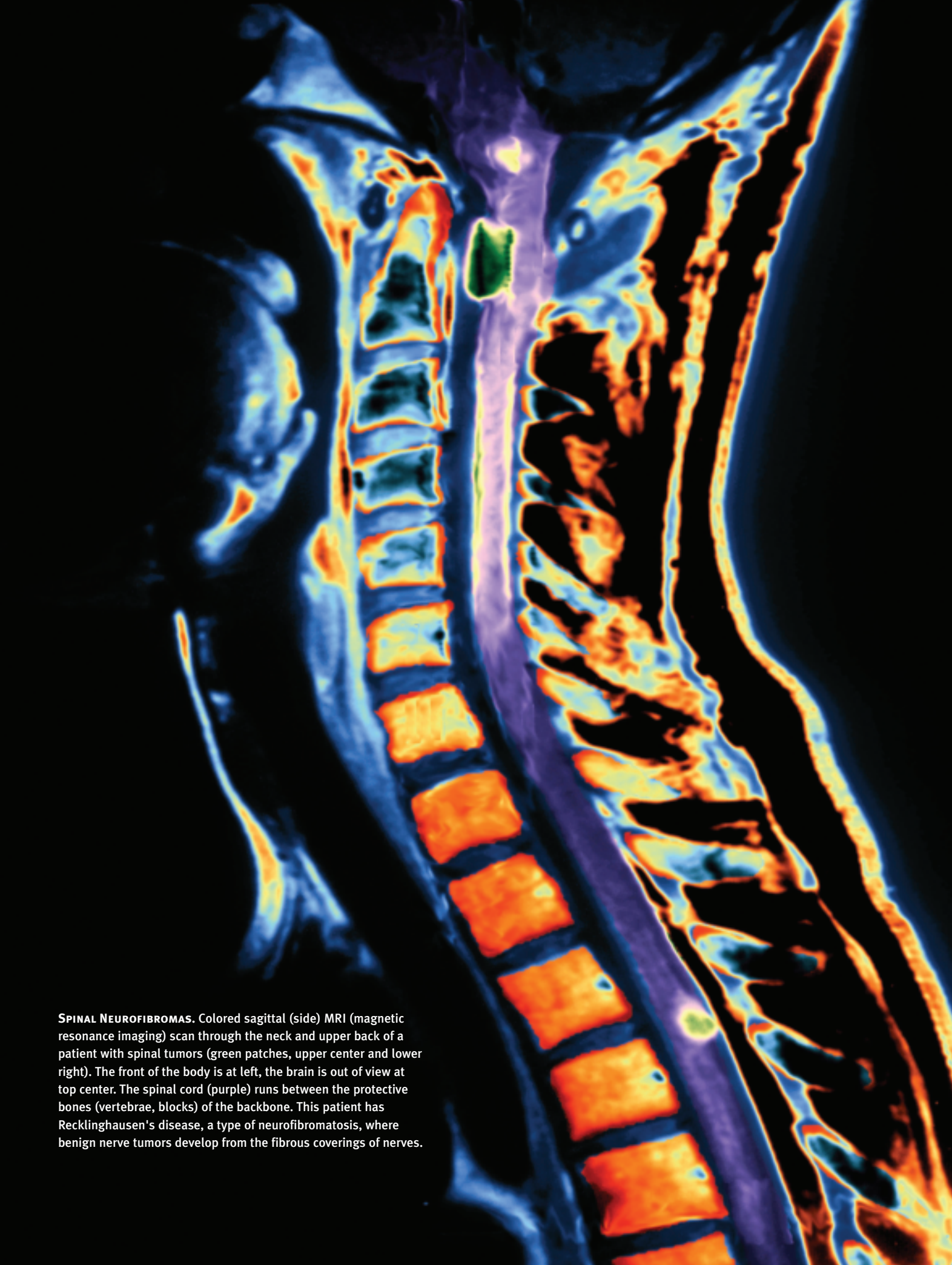
As an example, Ruggiero tells about the most memorable experience of her summer. A trauma victim brought to UH died in the OR recovery room, despite heroic attempts to save her life. As it turned out, the patient was an organ donor. Ruggiero and her research partner, fellow medical student Suzanne Bentley, viewed the organ procurement in the OR.

Late that night, Murphy called both students at home and asked if they wanted to return to the OR. The liver that had been donated earlier that day was about to be transplanted into a patient at UH.

The two raced back to the hospital, where Dr. Babarao Koneru, chief of the division of transplant surgery at UH and professor of surgery at NJMS, invited them to scrub. "We had an anatomy lesson from Dr. Koneru and then watched the entire procedure," recalls Ruggiero. "We saw that liver go full circle, from donation to transplantation. What an experience."

In the future, Ruggiero sees herself at an academic medical center. "I want to do my residency in a city. It's where the need is, and where I can make a difference," she says. After that, she would like to be involved in both research and clinical care. Newark is on her list of possibilities: "There is so much to learn at University Hospital."

Above all, she remains close to her family. "This wonderful opportunity I have is based on years of their hard work," she says. "It's taken us three generations to get here, but we're here." ●



SPINAL NEUROFIBROMAS. Colored sagittal (side) MRI (magnetic resonance imaging) scan through the neck and upper back of a patient with spinal tumors (green patches, upper center and lower right). The front of the body is at left, the brain is out of view at top center. The spinal cord (purple) runs between the protective bones (vertebrae, blocks) of the backbone. This patient has Recklinghausen's disease, a type of neurofibromatosis, where benign nerve tumors develop from the fibrous coverings of nerves.

TACKLING A COMPLEX GENETIC DISEASE

BY FLORENCE ISAACS

NEUROFIBROMATOSIS IS A “COMMON, UNCOMMON” DISEASE affecting all age groups. Because the condition is so complex, it may need to be followed by a wide range of specialists.

The Neurofibromatosis Center of New Jersey at UMDNJ–University Hospital, a multidisciplinary program of 19 physicians, is co-directed by Allen H. Maniker, MD, Beth A. Pletcher, MD, and Stephen S. Kamin, MD.

“All the specialists familiar with the disease are located under one roof. Our team approach improves communication and coordination among physicians and makes care more convenient for patients,” says Maniker, who is an associate professor of neurological surgery at UMDNJ–New Jersey Medical School (NJMS).

Using advanced diagnostic technology and surgical techniques, as well as genetic counseling, the Center is a comprehensive resource in the state for this chronic genetic disorder.

Two Variations of a Not-So-Rare Condition

Neurofibromatosis causes tumors to grow along cutaneous nerves and major motor and/or sensory nerves in children and adults. Although tumors are usually benign, they can become malignant or cause other serious complications leading to severe pain and disability. The condition usually presents in two forms: type 1 (NF1) affects roughly 1 in 3,000 people; type 2 (NF2) appears in 1 in 40,000. In both cases, the goal is early diagnosis, monitoring and treatment to prevent progression of the multi-system disease.

Because neurofibromatosis potentially affects so many different areas of the body and varies widely in symptoms and sever-

ity, at any one time a patient may need a neurologist, neurosurgeon, geneticist, ophthalmologist, otolaryngologist, dermatologist, spine surgeon, or other specialist. The Neurofibromatosis Center of New Jersey provides an optimum model of care.

NF1 Most Common

NF1 and NF2 are actually two different conditions. In the most common, NF1, tumors grow on or below the skin (often appearing as small lumps), and on peripheral nerves. “Cutaneous tumors may be cosmetically bothersome, but they’re usually painless and tend to be more pesky than serious medical issues,” explains Pletcher, who is an associate professor of pediatrics at NJMS and a medical geneticist at the school’s Center for Human and Molecular Genetics.

Rarer, but much more serious, are plexiform tumors, which grow along the body’s peripheral nerves, and can be present from birth, undetected. “These tumors are harder to treat than cutaneous tumors because they invade soft tissue and bone, and can transform into neurofibrosarcoma in 5 to 10 percent of cases. Red flag signs of sarcoma are rapid enlargement and pain in tumors that haven’t been previously troublesome,” says Pletcher. She launched the Neurofibromatosis Center of New Jersey in 1994, after working at similar ones at North Shore Hospital on Long Island and during her fellowship at Yale University School of Medicine.

If caught early enough, neurofibrosarcoma can be treated with surgery and/or radiation therapy. Cutaneous tumors that mar appearance can be removed surgically. The tumors can return, however.

Although symptoms are mild for most patients, NF1 may involve significant complications—and there are special issues for children. NF1 can be seen at birth, in infants, and is usually confirmed by age 10. “Three-quarters of our patients at the Center are babies through pre-teens. Learning disabilities occur in about 40 percent of cases. Preschoolers may have developmental delays; ADD or ADHD are common,” notes Pletcher.

Children are typically referred to the Center when physicians find multiple café au lait spots. “Many people have the spots, but 6 or more are a major clue to neurofibromatosis. If there is also a family history, we can often make the diagnosis early in life. If not, we must wait until a second clue appears. We follow up patients twice a year until age 5, then once a year. By age 10, we can usually definitively diagnose neurofibromatosis—or rule it out. Occasionally very fair children—redheads perhaps—will simply have multiple spots and we feel confident there is no disease,” says Pletcher.

Careful monitoring identifies new symptoms as soon as they arise and allows early referral for specialized help so that children can catch up to their peers. “We may suggest an early intervention program run by the state’s Special Children’s Health Services for infants and toddlers. After age 3, services are provided through the local school district,” explains Pletcher, who encourages parents to advocate for services.

“Patients of mine who have accessed services feel better about themselves and often go to college. In contrast, many adults who never received help struggled in school and couldn’t go beyond high school,” she notes.

Another childhood complication of NF1 is scoliosis, especially in girls. “We aggressively monitor mild scoliosis before age 10 because progression is common. The patient is referred to a pediatric orthopedist even if a mild curve is detected. If we catch changes early, braces alone can sometimes halt progression and surgery can be avoided,” says Pletcher.

Optic nerve gliomas that cause visual loss and even blindness may appear in children, as well. Depending on the case, treatment may include chemotherapy or surgery on the optic nerve. Lisch nodules, small lumps on the iris of the eye, turn up in patients of all ages, but are significant only in diagnosis.

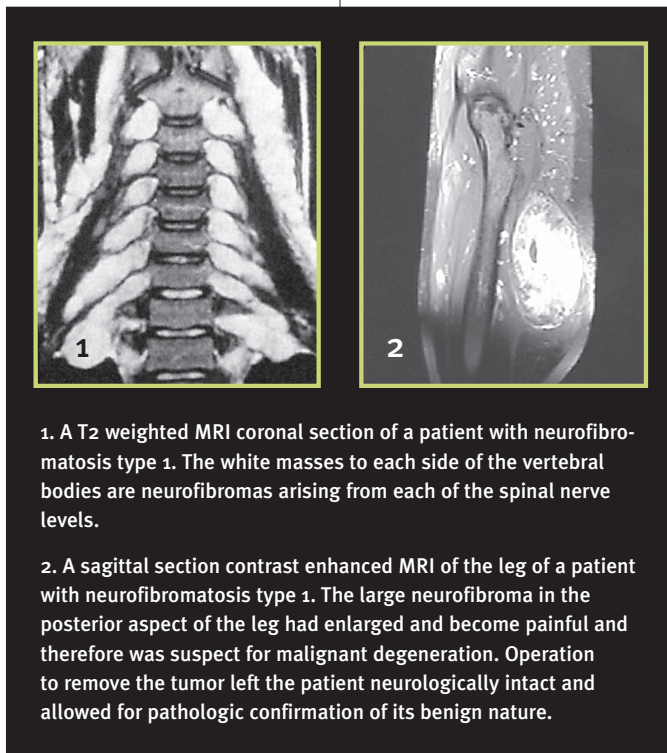
NF1 Medical Issues for Adults

The most common serious complication for adults is spinal cord tumors, which may appear in multiples. Unless they cause pain or other symptoms, the tumors are left alone. But if patients feel numbness or shooting pains, it’s critical that they call the center immediately and come in.

“We usually worry most about tumors of the nerve roots that press on the spinal cord from outside. In addition to pain and sensory loss, they can produce weakness in arms or legs or bowel and bladder dysfunction. Such symptoms require prompt treatment. After doing a neurological examination, we obtain an MRI of the spine to determine exactly where the tumor is and usually refer to a neurosurgeon for removal. Patients can have an excellent recovery from the deficits caused by these tumors,” explains Kamin, who is an associate professor of neurology at NJMS.

When spinal cord tumors must be removed, state-of-the-art intraoperative monitoring, including electromyography (EMG) and somato-sensory potentials (SSEPs), makes surgery safer. “EMG monitors muscle twitches, contractions, and other signs a nerve is being disturbed so we can make adjustments and avoid nerve damage,” explains Maniker.

Hypertension in NF1 patients is another common concern, which must be treated differently from the essential hypertension physicians usually see that runs in families. In contrast, NF1 hypertension results from: (1) renal vascular stenosis, which reduces blood flow and raises blood pressure, or (2) pheochromocytoma, a growth on the adrenal gland. In either



1. A T2 weighted MRI coronal section of a patient with neurofibromatosis type 1. The white masses to each side of the vertebral bodies are neurofibromas arising from each of the spinal nerve levels.

2. A sagittal section contrast enhanced MRI of the leg of a patient with neurofibromatosis type 1. The large neurofibroma in the posterior aspect of the leg had enlarged and become painful and therefore was suspect for malignant degeneration. Operation to remove the tumor left the patient neurologically intact and allowed for pathologic confirmation of its benign nature.



Left to right: Allen H. Maniker, MD, Beth A. Pletcher, MD, and Stephen S. Kamin, MD.

case, treating just the symptoms of hypertension doesn't work because the underlying problem still remains. Treatment for renal artery stenosis may include balloon angioplasty. An adrenal growth can be surgically removed.

The Rarer Type: NF2

NF2 develops within the central nervous system, and ordinarily presents in late adolescence or adulthood, when tumors grow on the cranial (or occasionally spinal) nerves. The first symptoms are usually hearing loss, tinnitus, or balance problems caused by acoustic neuromas.

"Today an MRI detects tumors while they are small. In the past, larger tumors, which are more difficult to remove, could leave the patient with post-surgical facial nerve damage. With early treatment, while the tumor is small, there's a good chance of hearing and facial nerve preservation," explains Maniker.

Diagnostic criteria for NF2 include bilateral 8th nerve tumors; a first degree relative with NF2 and a unilateral 8th nerve tumor; a first degree relative with NF2 and at least two of the following additional findings: meningioma, glioma, schwannoma, juvenile cataract.

The Gene Mystery

Neurofibromatosis is often inherited. However, about 50 percent of cases are caused by spontaneous gene mutation, which can then be passed on to children. NF1 patients don't produce sufficient neurofibromin, a tumor-suppressing protein. NF2 patients lack enough of the protein merlin, also a tumor-suppressor. The NF1 gene is on chromosome 17 and NF2 on chromosome 22.

Genetic tests are available, but are of limited value because they identify only 65 to 70 percent of affected patients. "You could have NF1 or NF2, yet have a negative test. A positive test only confirms what we've already concluded," says Pletcher.

There is a 50 percent chance both NF1 and NF2 patients will pass on the gene, but prenatal testing is helpful only in certain cases. "In many prenatal situations we can't test for a mutation. There is also an ethical dilemma because the condition is

not usually life-threatening. Do you or do you not continue the pregnancy under these circumstances?" asks Pletcher.

Looking for a Cure

Based on the number of patients she's seen Pletcher believes the incidence of NF1 is underestimated and may actually run as high as 1 in 1500 people. "There are many adults who have it and don't know it. They may develop little bumps in any part of the body and physicians may not pay attention to them or to very pale café au lait spots. One physician was completely unaware that he himself had NF1 until his daughter was born and a pediatrician picked it up," she explains.

Someday, genetic research may lead to advances that suppress or retard tumor growth. In the meantime, palliative treatment is effective, although neurofibromatosis cannot be cured. "The goal is to help patients maintain their health by taking care of and monitoring themselves so that we can identify symptoms early, while they are treatable, and prevent the more serious complications," says Pletcher. That happens every day at the Neurofibromatosis Center of New Jersey. ●



Diagnostic Clues to Neurofibromatosis

For NF1, two of the following must be present:

- 6 or more café au lait spots
- Freckles in armpits or groin
- Two standard or one plexiform neurofibroma
- Lisch nodules
- Optic nerve glioma
- Unusual lesions of the long bones or sphenoid sinus
- First degree relative with NF1

Diagnostic criteria for NF2 include bilateral 8th nerve tumors; a first degree relative with NF2 and a unilateral 8th nerve tumor; a first degree relative with NF2 and at least two of the following additional findings: meningioma, glioma, schwannoma,* juvenile cataract.

*Schwannomatosis is a newly defined category of neurofibromatosis, which hasn't been traced to a chromosome yet and is characterized by schwannomas, multiple tumors with a different histology from other growths.





A WEEK *in the* LIFE

By Eve Jacobs

Three thousand miles and a world away, cleft lip and palate correction is not routine surgery. In many locales, such as Guayaquil, Ecuador, children with these deformities often grow into adulthood without the specialized medical care they need, and their lives are truly spoiled. Poverty puts these corrective procedures way out of reach of the “ordinary” citizen; and there is no recourse but the kindness of strangers.



Enter a medical team from UMDNJ's Newark campus, determined to use their professional skills to change an otherwise bleak picture. Composed of two oral maxillofacial surgeons, a pediatric anesthesiologist, nurses, residents and technicians from the University's New Jersey Medical School (NJMS), University Hospital and New Jersey Dental School (NJDS), the team has the expertise, and has decided to volunteer their time and skills, to perform a range of surgeries on 25 lucky children, whose lives will be dramatically changed. Parents line up early at Hospital Del Ninos, the largest children's hospital in Guayaquil, on Sunday, February 6—evaluation day—desperately hoping their child will be among “the chosen.” The team selects those who have the greatest chance of success, and helps to refer more complicated cases to the U.S. for treatment. Surgery begins early Monday morning and continues for five days, each operation taking approximately two hours. By week's end, the team has performed 20 cleft lip and five cleft palate surgeries. On Saturday, they check on their charges, do a bit of touring around the city and buy souvenirs before heading back to the States on Sunday, when they will anticipate resuming their usual work routine, all of them changed by this one week carved

out of their everyday lives.

The journey is the brainchild of Shahid Aziz, MD, DMD, assistant professor of oral and maxillofacial surgery at NJDS and UH, who had previously participated in several such trips to Ecuador. Following his 2004 trip, he decided it was the right time to lead a group from UMDNJ, cleared it through Healing the Children, the primary sponsoring organization, started working on the plans and recruited the members one by one. The other sponsoring group is the Fundacion El Cielo para Los Ninos de Ecuador, a local organization, which, among other things, gets the word out to parents that highly specialized, no-cost surgical care will be available.

The hand-picked, elite medical group included: Vincent Ziccardi, DDS, MD, associate professor and chair of oral and maxillofacial surgery at NJDS and chief of that service at UH; Tom Schiebele, MD, director of pediatric anesthesiology at UH; Maria Diaz-Vega, anesthesia tech at UH; Fran Devonshire, RN, oral surgery nurse at NJDS; Gilbert Chang, MD, a pediatrician practicing in California who completed his pediatrics residency at UH and is a 1996 alum of RWJMS; anesthesiology residents Myra Martin, MD, and Shabeen Therani, MD; oral and maxillofacial surgery residents Brian Dorfman, MD,



Anthony Rega, MD, and Edward Strauss, MD; and Lynn Speer, RN, an ER nurse from Columbia Presbyterian.

The children presented for surgery are ages 10 weeks to 12 years. The ideal time to operate on cleft lips is when an infant is 10 weeks to three months old, and cleft palates should be corrected by one year of age, says Aziz. Of course, the older the child is at the time of surgery, the more complex the procedure.

In the U.S., these facial malformations are relatively rare, occurring in roughly one in 1,000 births. Cleft lips and palates are far more prevalent in South and Central America, a situation that is most likely due to a combination of genetics and inadequate intake of folate during pregnancy. While cleft lips are generally a cosmetic problem, which nonetheless cause children and their families enormous social and psychological problems, cleft palates are a functional issue, says Aziz. They can produce an open pathway from mouth to nose, causing an infant to struggle for nourishment, since sucking is affected and milk can enter the nose directly from the mouth. Both defects can affect speech, and in older children, eating, and can have psychological ramifications lasting long after the defect is repaired.

Each cleft is different, say the surgeons. Cleft lips can range in severity from a slight notch in the upper lip to a complete

separation of the lip, extending to the nose, on one side of the upper lip or both. Cleft palates also vary in seriousness, from a small opening at the back of the palate to a complete separation of the roof of the mouth, extending from front to back, on one side or both. Surgical repair of cleft palates is more complex than procedures for cleft lips, involving rebuilding the palate, moving tissue from the sides of the cleft to the center of the palate and rejoining muscle. The 25 surgeries performed by the UMDNJ team were all successful, says Aziz happily.

Because these deformities are not common in this country, oral and maxillofacial surgery residents gain vital experience in facial reconstruction procedures that they might not otherwise encounter. But beyond the educational benefit, and, of course, the enormous change this team makes in the lives of the children and their families, Aziz says all team members will be reminded why they went into healthcare. "Being a medical professional is about helping people," he says. "When you participate in a humanitarian mission, it has a life-changing impact that you can never forget." ●

If you are interested in information about future trips, contact Dr. Shahid Aziz at azizsr@umdnj.edu.



Marvin Schwalb, PhD

The Genetic Testing Conundrum



THE RAPID ADVANCES RESULTING FROM THE HUMAN GENOME PROJECT are entering mainstream medicine at a rate unlike any other medical advance. From the first test available about 14 years ago (cystic fibrosis, one mutation), there are currently about 1,000 different tests available. We can now identify a genetic based problem in about 25 percent of the U.S. population.

Tests for genetic (heritable) disorders can be grouped in various ways. For purposes of this discussion, consider defining tests as diagnostic, carrier or predictive. A diagnostic test is used to determine a specific genetic defect in a patient with symptoms. Carrier testing can determine who is at risk for having a child with a heritable disorder. Predictive testing involves determination of increased risk for a disease, for example breast/ovarian cancer or thrombosis.

Determining when to test is often not a simple matter. Considerations include medical value, cost effectiveness and ethical/social issues. For diagnostic tests these issues are usually not a problem. Finding the exact cause of a disease in a symptomatic patient is rarely questioned. The exception is when the test costs \$3,000.

Then one has to ask if having the test information changes the care of the patient. Frequently forgotten in this problem is whether or not the test discerns a heritable condition from one not "genetic." This can be of no importance to the treatment of the patient, but may be of great importance to at-risk people in the family.

Carrier testing is more complicated. It can be performed based on family history or population screening. If there is a history of the disease in the family, offering prenatal carrier testing is clear. If you are screening populations, the question arises as to the cost effectiveness. Carrier screening has been considered standard of practice for several disorders with high incidence in certain ethnic groups, i.e. sickle cell in African Americans and Tay-

Sachs in Ashkenazi Jews. This changed radically two years ago when the American College of Obstetrics and Gynecology and the American College of Human Genetics recommended that carrier testing for CF be "offered" to all Caucasian couples. The test was to be "made available" to couples from other ethnic groups. This difference in procedure among ethnic groups goes to the heart of the issue of population screening. The recommended panel of 27 mutations covers more than 80 percent of the mutations found in the Caucasian population, but a lower percentage for other ethnic groups. This, combined with the lower incidence of the disease in non-Caucasians, is the reason for the distinction. In other words, the colleges believed that 80 percent mutation coverage was required to make screening of value. (Note that recently added data has now increased the mutation panel so that similar coverage is available for Hispanics and African Americans.)

Should the 80 percent figure be used for all diseases? Not so simple. CF is a relatively common heritable disorder (1/3,000 Caucasians). What if the disorder occurs in 1/5000 or 1/20,000 births? Is screening justified in these cases? The question of cost is an important one.

Carrier screening for CF costs about \$175 per person. (Note: screening should be done sequentially; a father is tested if the mother is positive.) Where do we draw the line? There is, in fact, no definitive answer to this question. One factor that will influence the answer over time is improvements in technology which lower costs. For example, it currently costs about \$100 for carrier testing for a single gene with one or a few mutations such as Tay-Sachs. We now have a panel of eight disorders (31 mutations) in Ashkenazi Jews which costs \$300. Therefore, using this new technology, we have reduced the cost of testing for carrier status for a disorder more than two-fold. Another way of looking at this is that we can add to the test four rare disorders (incidence ~ 1/32,000-65,000) for a cost less than the previous cost of the four relatively common disorders (1/900-6400). The cost factor will continue to improve.

The best known genes for predictive risk of disease are the inherited predispositions to cancer such as BRCA1/2. The causes of these problems are mutations and are relatively uncommon. The discovery that most genes contain sequence variations (polymorphisms) at a much higher frequency in the population may be the most important discovery of the Human Genome Project. The first and still best known examples are the polymorphisms in the clotting factor genes Factor V and prothrombin. The Factor V Leiden variant, present in about 5 to 7 percent of the U.S. population, significantly increases the risk of thrombotic events, particularly when the person is exposed to known risk factors such as



surgery, birth control pills or just a long flight at 35,000 feet. The prothrombin variant has the same phenotype. The combined incidence for these two polymorphisms in the U.S. is more than 10 percent or 30 million people.

New polymorphisms which increase the risk of diseases are being found monthly. In addition, polymorphic variants in the Cytochrome P-450 genes, which are responsible for problems in the metabolism of common drugs, present another area of great importance and interest. Pharmacogenetics is the study of hereditary variations in response to drugs. And it is just a matter of time, and a short time at that, before variants that predispose to disorders such as Type II diabetes, hypertension and heart disease are discovered. Then we might have reason to test the entire population.

Should we be screening for thrombosis-related polymorphisms? Well, we

screen for cystic fibrosis, which affects about 30 people each year in NJ. There is a far greater number of deaths each year from pulmonary embolisms. When you consider the medical costs of treating deep vein thrombosis, you'll understand that it's a big issue. But will identifying at risk individuals make a difference in morbidity, mortality or costs? We have no data at this point.

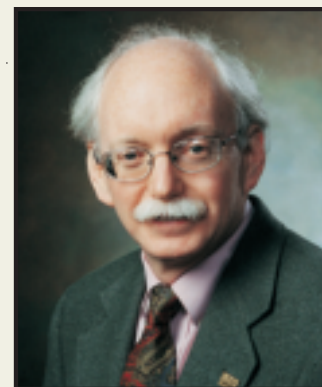
So who, at this time, should be tested for a genetic predisposition to thrombosis or any predisposition syndrome? At the moment, testing should be given to two classes of individuals: anyone who has had an event and family members of persons testing positive or having a strong family history.

Concerns about discrimination over genetic testing have proven to be over-exaggerated. However, there are still some situations that cause concern: for example, insurance and employer discrimination for some disorders where treatment is expensive, such as antitrypsin deficiency. But this is not because the disease is heritable, just expensive to treat. Another area is life insurance. By law, insurers are allowed to discriminate based on potentially life threatening circumstances, for example, smoking and skydiving, or BRCA1/2 mutations. However, there are few health insurance-related problems reported. Most insurers have adapted to the current reality, paying for appropriate tests and recognizing that finding predispositions are more often than not a means of preventing future events. ●

Marvin Schwab, PhD, is director of University Hospital's Center for Human and Molecular Genetics and professor of microbiology and molecular genetics at New Jersey Medical School.

John Katz, MD'75

A Message to Alumni



Top: NJMS Class of 1995, seated, left to right: Drs. Pamela Cailliau, Kristin Fless, Asha Bale; standing, left to right: Drs. David Daniels, Martha Kutko, Andrea Argeson and Ralph Hawks.

Bottom: NJMS Student Council President Catherine Lynch'05 and Maor Sauler'06.

THOSE OF YOU WHO ATTENDED THE ALUMNI REUNION on April 16 will certainly agree that the evening was a great success, as we honored Dr. Robert L. Johnson '72, Chair of the Department of Pediatrics and recipient of the Charles L. Brown Award; Dr. Kenneth G. Swan, who received the Distinguished Professor Award; and Sharon and Joseph Muscarelle, Jr., recipients of the Honorary Alumnus Awards.

As the year of celebration of our 50th Anniversary will soon come to a close, we look forward to some exciting new developments on campus: the opening of the New Jersey Medical School–University Hospital Cancer Center and the construction of housing for students on the Newark campus.

On April 26, many members of the Alumni Association joined together in a show of support to Dr. John J. Petillo, as he was sworn in as the third President of UMDNJ. We look forward to working with Dr. Petillo as he guides NJMS in its second half-century.

Please be reminded that the selection of students who will receive scholarships for the 2005–2006 academic year will occur shortly. I hope that we can count on your support of the many NJMS students who bear significant financial burdens. For information on how you can add your name to the list of alumni donors, please contact Dianne Mink, Alumni Coordinator, at 973-972-6864 (outside NJ: 800-477-7040) or via e-mail at minkda@umdnj.edu.

I would like to thank all those who participated in so many ways during my presidency, and ask for your continued involvement as Joseph V. DiTrolio, MD'79, the incoming president, leads us forward. ●

Alumni Reunion/Golden Apple Awards Dinner

A great time was had by the students, residents, faculty, alumni, family and friends who attended an evening that was the first of its kind. NJMS combined the Alumni Reunion and the Golden Apple Awards Dinner into one big, wonderful party on April 16 at the Sheraton Tara Hotel in Parsippany, NJ.

1. Left to right: John W. Katz, MD'75, Alumni Association President; Kenneth G. Swan, MD, recipient of the Distinguished Professor Award; Joseph and Sharon Muscarelle, recipients of the Honorary Alumnus Awards; Robert L. Johnson, MD'72, recipient of the Charles L. Brown Award and George F. Heinrich, MD'72, Alumni Association Vice President for Finance.

2. Class of 1980, left to right: Drs. Lucille Soldano, Darlene Moak, Naomi Grobstein and Justin Kaplan.

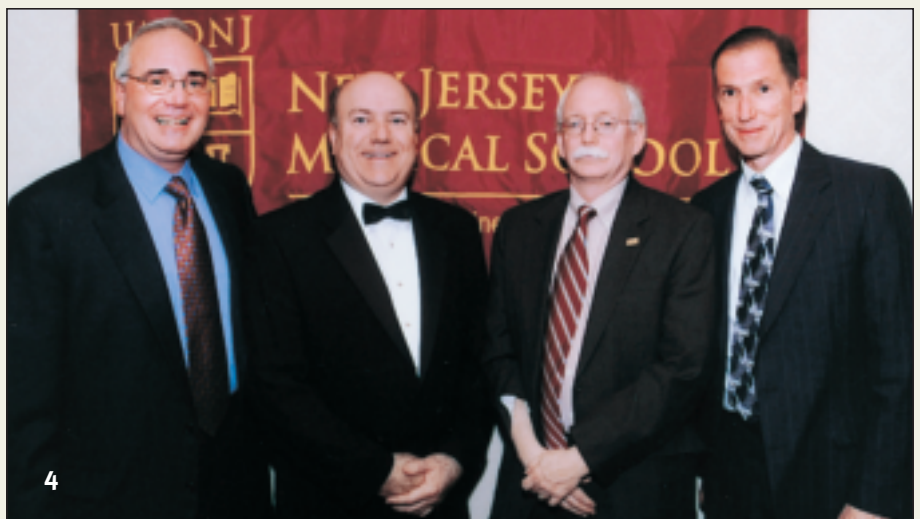
3. Enjoying the evening, left to right: Barry Prystowsky, MD'81, Robert L. Johnson, MD'72, and David Snead, MD'60, and his wife.

4. Drs. Anthony Scillia, Richard Binetti, John Katz and Bruce DeCotiis celebrate the 30th anniversary of their graduation.



Career Night 2005

THE ALUMNI ASSOCIATION extends a big “thank you” to the more than 50 faculty and alumni who volunteered to spend an evening with NJMS students, sharing their professional experiences. Students had the benefit of choosing from more than 35 specialties and greatly enjoyed the opportunity to speak informally with practicing doctors. As one student commented, “The evening was most informative. It was great to hear how much the women doctors love their work and balance their personal lives with their careers.”



Lawrence M. Fox, MD'86

This Fox Never Sleeps (Or Hardly Ever)

by Maryann Brinley

JUST HOW TIGHTLY CAN YOU PACK AN AVERAGE DAY? If you are Captain Lawrence M. Fox, MD, PhD, US Public Health Service (USPHS), and NJMS class of '86, there will always be room for one more task on that to-do list because they are all labors of love: from solving worldwide AIDS crises to making sure school-day carpool schedules run smoothly.

Forget sleeping. A single father of three—Daniel is 13, Alex is 11 and Amy is 8—Fox runs from 5:45 am, jam-packing his work and parenting, going straight on into late night international telephone and e-mail discussions with fellow HIV researchers in Thailand, Cambodia, Haiti, Zambia and South Africa, and thriving on “the challenges and the chance to make a difference in the world.” As Senior Medical Officer at the National Institutes of Health (NIH), Division of AIDS, HIV Research Branch, he is always eager to “get into work in the morning to tackle the next round of conferences, discussions and decisions. We’re really busy.”

Co-architect of the largest single clin-

ical trial ever undertaken by the NIH’s Division of AIDS, known as ESPRIT, Fox has been recognized with the NIH Director’s Award as well as two U.S. Public Health Commendation Medals, the Health and Human Services Secretary’s Distinguished Service Award and an Outstanding Service Medal. “Barring an unperceived breakthrough in understanding the virus and the mechanisms of host defense, I don’t see eradicating this infection once it’s been established, though my pitch for gene-based therapy is always aimed at that. I’m leading projects in the developing world and on every inhabited continent and it’s very, very challenging.” Fox also cares for AIDS patients and trains infec-

tious disease experts one day a week at the NIH Clinical Center.

If the expression “Renaissance man” springs to mind here, it might be appropriate, given that the definition calls for a versatile, well-rounded individual who can perform brilliantly in different fields. This physician is also a poet, a gardener, and a black-belt karate expert, as well as a hands-on parent making sure his three are washed, dressed, fed, ferried to and from school, and on time for things like horseback riding lessons on Wednesday nights at 7 pm. “I had to get back home by 8:30 for a conference call to Thailand and then break away from the phone periodically to tuck kids in as bedtimes arrived.”

“The biggest thrill for me is being able to use everything I’ve ever learned in life, right down to what I picked up working nights for Japan Air Lines in New York City as a cargo traffic agent,” he says. His wide-ranging NIH experience, ranging from basic bench science to fostering global research network initiatives, gives Fox credibility and an expertise sought often by colleagues and



Fox with his children, Daniel, Amy and Alex (left to right)

“I view my work as an extension of my parenting,”
Fox says, “because I’m making the world less terrible for my children and their children to live in.”

sister agencies. Author of dozens of research articles and book chapters, he speaks frequently at international meetings, HIV management training programs and in think tanks confronting HIV’s medical, social and political ramifications. Nothing about his job looks or is easy. “I’ve always taken the most challenging routes in life,” he laughs. It also takes a lot of diplomatic effort just to pull off inter-agency cooperation. “Sometimes, I play a Henry Kissinger kind of role here.” Learning the medical cultures of 25 different countries is also on his to-do list these days. “There are

countries where the medical culture won’t customarily allow you to address the possibility of a clinical trial subject dying.” That makes writing mutually acceptable consent forms tough.

Wait a minute. Did he just give credit to time spent as an air cargo traffic agent for Japan Airlines?

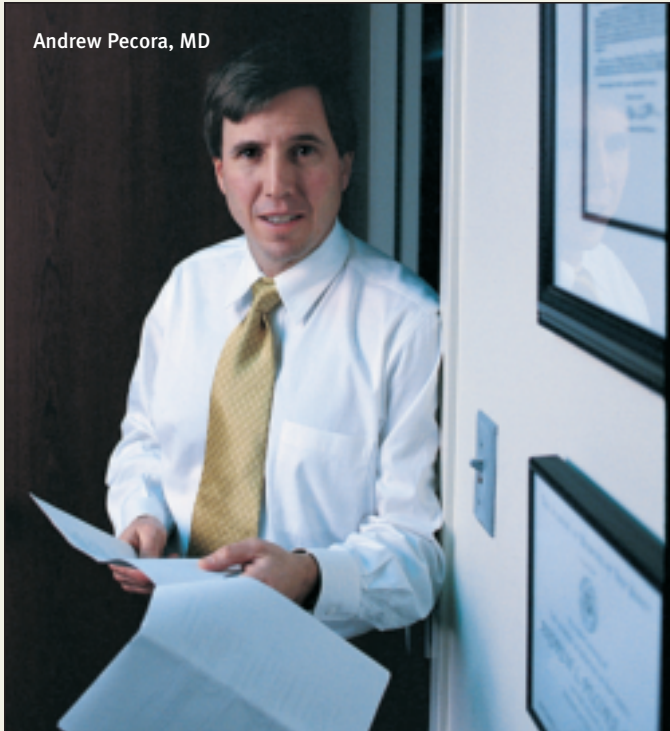
“Yes. My writing skills, my speaking skills, that first English degree and even what I learned about the distribution of restricted articles in an aircraft cargo bay” were all great preparation for juggling the professional and personal sides of his life successfully. Fox has two bach-

elor’s degrees, a PhD in microbiology from the University of Miami, an MD with board certification in pediatrics and internal medicine, and two post-doctoral fellowships. That air cargo experience was in the early seventies, while he was earning his second bachelor’s degree in biology by taking courses at St. John’s University in New York City and transferring the credits back to his alma mater, S.U.N.Y. at Stony Brook on Long Island. He spent nights on the loading dock, days in class, sleeping only by “catching naps here and there,” he recalls. “It was a feat because I think I was the first student in the S.U.N.Y. system to earn a B.A. and a B.S. sequentially as opposed to simultaneously.”

Those were the years he began applying to medical schools, keeping the dream of becoming a doctor alive for a decade, in spite of rejections. “I was interested in medicine from my earliest childhood career thoughts but it was always a toss up between becoming a submarine commander and a physician.” Feelings about the Vietnam War kept him from going to the Naval Academy at Annapolis back then. “We have a strong tradition in my family of serving our country in uniform. Not only did my grandfather fight in World War I and II, but my father was an officer in World War II and my mother was a Marine.” As a captain in the U.S. Public Health Service (USPHS) now, Fox has been wearing a uniform on the job since 9–11 and the anthrax attacks when USPHS transformed itself into an emergency response force and became

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Andrew Pecora, MD



Newcastle Virus Targets Tumors

by Eve Jacobs

ANDREW PECORA IS ALWAYS LOOKING for novel ways to kill cancers. The Class of '83 NJMS alum, professor of medicine at the school and director of The Cancer Center at Hackensack University Medical Center, was the featured speaker at the 37th Annual Harold J. Jeghers Memorial Lecture on May 20. He quoted Albert Einstein on the 100-year anniversary of the submission of three of the scientist's major papers: "Never lose your desire to question current thinking. Don't be afraid of challenging the current dogma."

If the current dogma is that viruses cause major havoc and should not be introduced into a human body already beaten down by cancer, then Pecora is staunchly battling the status quo. PV701, a strain of Newcastle disease virus, is an infectious agent that he feels holds promise as a cancer therapy.

"Newcastle is an oncolytic virus that is capable of semi-selective replication in malignant cells, causing malignant cell death without significant toxicity," says Pecora. "It is non-

recombinant and highly potent." One virus particle kills up to 100,000 tumor cells in culture.

Pecora was chosen to conduct one of three Phase I studies—at seven sites—to test PV701 because of his extensive experience working with stem cell therapies. He has been chief and director of the stem cell/bone marrow transplantation service at Hackensack since 1992 and has conducted research on developing individual treatment protocols for stem cell and bone marrow transplant recipients.

His Newcastle virus studies have demonstrated that PV701 can perform two important functions in cancer treatment: Unlike chemotherapy, it homes in on cancer cells and destroys them while sparing normal cells; and it stimulates the patient's own immune system to attack the cancer cells.

Patients with colon, pancreatic, kidney, breast, lung, head and neck, skin, ovarian, and bladder cancers, and mesothelioma, participated in the initial trial at the Hackensack site. In all cases, other treatment options had failed. One patient had been diagnosed with peritoneal mesothelioma and had surgery to debulk a 14-pound abdominal mass, but had hit the end of the line after chemotherapy failed.

The patient was treated with more than 200 doses of virus over a period of three and a half years, and had a response lasting longer than four years. (The FDA allowed him to continue therapy on compassionate grounds even after the Phase I trial ended.) According to Pecora, this patient originally came in bent over in fetal position, but was able to resume playing golf and sailing his boat.

The researcher said that over the course of the study they learned that: gradually increasing the doses of virus produces better effects; giving the infusion slowly increases the therapeutic effect; there is no cumulative toxicity; and there is a continued desensitization effect with each dose. Participants were given six doses over two weeks, followed by a week of rest. Side effects included flu-like symptoms, gastrointestinal disturbances and hematologic disturbances, which were limited to the first doses.

The virus goes to where the tumor is and has a biologic, but not a curative effect, according to Pecora. "When patients tire of coming for the virus injections, the disease does come raging back," he says.

The researcher explains that this kind of viral therapy should be used together with chemotherapy to achieve better results. "The way to cure cancer is to go after multiple targets with multiple therapies all at once, not one drug or one target," he concludes. ●



Alumni Profile

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more military in style. This service option was offered to anyone entering the NIH as a fellow when Fox arrived in Bethesda in 1990 and adds even more obligations to his busy life. “I have to pass physical fitness requirements every year and be ready to do anything from drawing blood to responding to hurricanes or bioterrorism.” So, even though the submarine commander in his childhood vision may have escaped his grasp, his being a public health officer “is part of the fulfillment of that dream.”

At the University of Miami where he completed a doctorate in 1979, his focus was on herpes, “the deadliest, wide-spread, incurable virus we had at the time.” Working on a rational design for drugs that would be toxic specifically to infected cells, he explored molecules and their mechanisms, teasing out mechanisms of cytotoxicity from their antiviral effects. Staying in the biomedical sciences, he also spent three years at The Roche Institute for Molecular Biology in Nutley before being accepted to NJMS when he was 33.

The AIDS epidemic arrived in Newark along with Fox and he recalls the frustrations of NJMS Professor James Oleske, MD, the pediatrician who first described this condition in children. “I vividly remember the first AIDS patient I took care of—an infant whose 21-year-old suburban mother had become infected while vacationing in Hawaii. She didn’t want me to tell her mother that she had HIV and her baby had AIDS.” Fox skirted the truth by speaking of the baby’s condition only as an unusual form of pneumonia, caused by the parasite *Pneumocystis carinii*. “In retrospect, the

incredible thing was talking to her suburban pediatrician who absolutely refused to accept the diagnosis.”

At Albert Einstein Medical Center in Philadelphia, his dual residencies required a lot of mental and emotional shifting back and forth. “I’d go from children with issues of growth and development to adults with issues in aging.” Demarcation lines were also drawn clearly by deaths. On the first night back in internal medicine after a half year rotation in pediatrics, “I had eight deaths but had experienced only one in the previous six months. You come to accept death as one of the processes that happens throughout life. And you don’t sleep much.” In Philadelphia, Fox was given the Menin Award for Humanitarianism and Clinical Excellence. “I was in awe of that one because it required the concurrence not only of the hospital medical faculty, but of all the support staff... nurses, respiratory techs, physical therapists... which meant a lot of people thought I was doing something special.”

What was special about Fox, besides his nonstop work ethic, outspokenness and thirst for knowledge, was his involvement in a local homeless shelter which began when he treated two chil-

dren in a hospital clinic one day, both diagnosed with meningitis and with the same address. “They were from a shelter for homeless families with children under age four.” After intensive political maneuvering, arrangements were made for Fox to spend a month at the center to spearhead an ongoing relationship with the residency program, where he treated a spectrum of diseases and saw some bizarre effects of under-socialization: the kids didn’t know how to play with toys. For weeks, he watched as they simply threw little cars at one another.

“It was very sad. One day, a car landed on its wheels by accident,” Fox says. “There was silence and one of the boys walked to it, saw it move and suddenly realized this was the way you were supposed to play with it. It was a breakthrough moment and then, all the kids grasped the concept of toy cars.”

Lawrence Fox’s own children are “extraordinary kids who are mature, way beyond their years,” he says. Perhaps his years of experience and belief in the power of work prepared him for this role of single father as much as for his life in science and medicine. What is apparent is that, unlike most workaholics, he can put the items on his to-do list into perspective, so the urgent issues can’t overwhelm what’s important.

“Whether it’s basketball with Daniel, pool with Alex (aka “Trickshot”), ping-pong with Amy, going out to a favorite Italian restaurant, helping with homework, bicycle trips, fishing or evenings in front of the fireplace, I carefully preserve my family time.” In fact, the professional can’t take precedence over personal. “I view my work as an extension of my parenting because, as my parents and grandparents did for me, I’m making the world less terrible for my children and their children to live in.” ●



THE 1960s

Christopher M. Papa, MD'61, of Colts Neck, NJ, is enjoying retirement. He sings with the Red Bank Area Chapter of the Barber Shop Harmony Society and serves as chapter secretary.

Richard E. Pelosi, MD'61, has six children (two physicians, two attorneys, and two in college) and seven grandchildren. He and his wife Susan are retiring and spending winters in Palm Beach, FL.

Vincent Oriente, MD'66, is retired and living in Hawaii.

THE 1970s

Thomas Dayspring, MD'72, attained fellowship status in the American College of Physicians in July 2004. He was also elected to the board of the Northeast Lipid Association, a chapter of the

National Lipid Association. He lectured on diabetic dyslipoproteinemia at the Association's inaugural meeting in January 2005.

Edward Racek, MD'72, is a trauma surgeon and attorney in Chula Vista, CA.

Paul Raffer, MD'72, in solo private practice since 1977, is a clinical associate professor in the neuroscience department at the University of California, San Diego.

Robert Jarmon, MD'73, received a U.S. patent for a patient support surface that prevents bedsores.

James LaBagnara, MD'74, has been named chief medical officer (CMO) for St. Joseph's Health Care System in Paterson, NJ. He previously served as interim CMO at the Regional Medical Center and vice president of medical affairs at St. Joseph's Wayne Hospital. He maintains a private practice in otolaryngology-head

and neck surgery in Paterson and was recently recognized as a NJ "Top Doc" (2005) for the third consecutive two-year period.

Stewart Miller, MD'74, a pathologist in Dover Township, NJ, was featured by the *Asbury Park Press* in an article entitled "Your Job: Pathologist" in December 2004.

Richard Schanler, MD'74, relocated from Houston to Long Island, NY. He is chief of neonatal-perinatal medicine at North Shore University Hospital and professor of pediatrics at Albert Einstein College of Medicine.

Kenneth W. Faistl, MD'75, will be the director of the family medicine residency program at the CentraState Medical Center in Freehold, NJ, when the program begins in July 2005.

Jeffrey Lasker, MD'75, received the 2004 American Academy of Pediatrics Quality of Care Award. He practices in Newton, MA.

Stephen C. Blank, MD'77, is with Mt. Vernon Ob/Gyn Associates, Atlanta. He is producing an ovoscope for infertility and "New Life" shoes for pregnant women.

Lela Brink, MD'77, has received recertification from the American Board of Pediatrics Subspecialty Board in Critical Care Medicine, and has been a member of the Geisinger Medical Group in Patton Forest, PA, since 1998.

Bernard Herzberg, MD'77, was listed in *How to Find the Best Doctors in Florida* (Castle Connolly, first edition), and also in *Guide to America's Top Physicians* (Consumer's Research Council of America).

David Powell, MD'77, is vice president of metabolism research at Lerico Genetics, Inc., Houston, TX.

Mitchell Rubin, MD'78, recently married Dr. Beth Weitzman, a professor of health and public policy and the director of doctoral studies at Wagner Graduate School of Public Service at New York University. Dr. Rubin is director of the department of community medical practices for the Queens Health Network of the New York City Health and Hospitals Corporation. He is also an associate professor in the departments of pediatrics and community and preventive medicine at Mount Sinai School of Medicine.

Anthony Emanuel, MD'79, was elected chief of staff at Centra State Medical Center for a two-year term. He is in private practice (Pediatric Health, PA) in the Freehold, NJ area.

THE 1980s

Nicholas Scarpa, MD'80, medical director of the Arthritis Center of NJ, has done extensive research on the COX-2 NSAIDs. He was the keynote speaker at a seminar for the Marine Corps Marathon in Washington, DC. The title of his lecture was "Cardiovascular Implications of COX-2 Inhibitors in the Marathon."

Sharon Mason-Bell, MD'82, a board certified psychiatrist, has been named senior vice president and medical director of Youth Consultation Service (YCS), Newark, NJ. YCS is a non-profit social services agency dedicated to providing services to children and families in need.

Alan Anderson, MD'83, was elected to the board of directors of the American Association for Geriatric Psychiatry in 2004.

Richard S. Bercik, MD'83, is assistant professor and director of urogynecology and female recon-

IN MEMORIAM

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

Vincent Carboni, MD'78, a pediatrician and allergist in Pennsylvania, died on December 8, 2004. He was a Fellow of the American Academy of Pediatrics and affiliated with many other professional societies. He is survived by two daughters and a son.

Thomasina Tommye Ivey, MD'77, an internist and specialist in geriatric medicine, died on January 29, 2005 in Livingston, NJ. She was a clinical instructor of medicine at UMDNJ-University Hospital, Newark, and then practiced in Florida for many years. Later, she was an assistant professor of medicine and geriatrics at Mount Sinai School of Medicine in New York and worked with the New Jersey Veterans Health Care System and at the Lyons Hospital in New Jersey.

Joseph Laurora, MD'64, died on March 2, 2005. He was an obstetrician/gynecologist in Hackettstown, NJ, until his retirement five years ago. He was the first president and chief of staff at Hackettstown Community Hospital and chief of its Department of Obstetrics. He leaves his wife, Patricia, a daughter, Justine, a son, Kenneth Laurora, MD'99, his brother Nicholas Laurora, MD'63, and a sister, Victoria Urcinoli.



structive pelvic surgery, Department of Obstetrics, Gynecology and Reproductive Sciences at the Yale University School of Medicine. He was recently selected by US Surgical as an investigator for a new device to treat vaginal prolapse, and is participating in two NIH-sponsored grants. He resides in Fairfield, CT, with his wife Nancy and their four sons.

Antoinette Costa-Zach, MD'83, and **Douglas Zach, MD'81,** are proud of their daughter Katie, one of four scholarship winners selected by *Seventeen* magazine. She won their "America's Sweetheart" contest for being a role model.

Jed Kwartler, MD'83, received his MBA from Rutgers Business School in May 2005. In July, he will compete in the triathlon in the World Maccabiah Games in Israel.

Fred Caruso, MD'87, is the solo pediatric radiologist in Fayetteville, Ft. Bragg, NC.

Steven Winters, MD'87, has joined the Oxford, NC, office of Triangle Orthopaedic Associates and is on the medical staff of the Granville Medical Center. He specializes in upper extremities and general orthopaedics.

Mark Kortepeter, MD'88, a leading expert on bioterrorism and hazardous infectious diseases, wrote *Biohazard 9-1-1*, his first fictional work (Publish America). He recently served as chief of medicine at USAMRIID—United States Army Medical Research Institute for Infectious Diseases.

Andrei I. Holodny, MD'89, is the founding president of the American Society of Functional Neuroradiology. He is an associate attending radiologist and director of the Functional MR Imaging Laboratory at Memorial Sloan-Kettering Cancer Center, NY.

THE 1990s

David Miksits, MD'93, and wife Marivic are pleased to announce the birth of their second child, Joshua David, on October 1, 2004. Joshua joins his sister Rachel, age 6.

Carlos Mayer-Costa, MD'94, has joined Butler Medical Associates and opened a new office as a family physician in Zelienople, just north of Pittsburgh, PA.

Patricia Morgan-Glenn, MD'95, is medical director for the Metro Regional Diagnostic & Treatment Center for Child Abuse & Neglect. The Center, located at Newark Beth Israel Medical Center, is one of four in NJ performing specialized evaluations.

Joseph Alhadeff, MD'96, and wife **Angela Ang-Alhadeff, MD'97,** announced the birth of their daughter, Alexa Jade, in August 2004.

Anke V. Jacobs, MD'96, and her husband Gerald announce the birth of their daughter, Maya Jade. Dr. Jacobs is associate chief of the Department of Infectious Diseases at the Metropolitan Hospital Center in New York.

David Apelian, MD'96, PhD, MBA, is vice president of clinical development and regulatory affairs and chief medical officer at GlobeImmune, Inc., in Aurora, CO. He is board certified in pediatrics and specializes in inflammatory bowel disease and hepatitis.

Maria Ciminelli, MD'96, will be associate director of the family medicine residency program at the CentraState Medical Center in Freehold, NJ, when it begins in July 2005.

Mamta Shah, MD'96, and **Manish Parikh, MD'90,** were married on November 27, 2004

Stay in Touch!

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

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in NY. Dr. Shah is an endocrinologist with the Scarsdale Medical Group, NY; Dr. Parikh is an interventional cardiologist practicing at NY-Presbyterian Hospital and is associate professor of clinical medicine at Weill Medical College of Cornell University.

Eric Price, MD'99, was married in fall 2004 to Sara MacCorkindale, an anesthesia nurse. He is currently taking a fellowship in sports medicine in CA.

THE 2000s

Mohammed A. Tantawi, MD'00, is practicing pediatrics in Hackensack, NJ, and has been performing with a Carnegie Hall choir for the past five years.

Alycia Leiby, MD'02, will be chief pediatric resident at Stony Brook Medical School in 2005-2006, and will start a fellowship in pediatric gastroenterology and nutrition at the Alfred I. Dupont Hospital for Children in Delaware in July 2006.

Jason Nitche, MD'03, was recently married to Tracy Marek, a strategic sales development analyst with Pfizer, Inc. He is a resident in orthopaedic surgery at Robert Wood Johnson University Hospital.

Julie Trivedi, MD'03, continued on in internal medicine at St. Vincent Hospital, Worcester Medical Center, Worcester, MA, and resides in Charlton, MA.

New Clues to Menopausal Changes

A NEW STUDY SUGGESTS that age-related changes in how the brain responds to the female sex hormone estrogen may be involved in a woman's transition through menopause. The study provides new clues about hormonal influences on hot flashes and night sweats experienced by some women in the menopause transition.

The findings are reported in the December 22/29, 2004, *Journal of the American Medical Association*, and are based on data from the Study of Women's Health Across the Nation (SWAN), a multi-site survey of women going through the menopause transition. This study is funded by the National Institutes of Health.

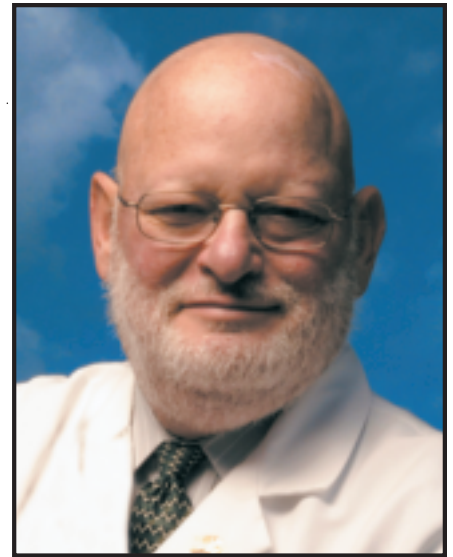
"Throughout a woman's reproductive life, there are not only age-related changes in estrogen levels, but also differences in how her body responds to given levels of estrogen. Researchers have been trying to understand how and why these changes take place," says Sherry Sherman, PhD, project director of the SWAN study, National Institute on Aging (NIA). "Hormone patterns found in this study could mean that, with age, a part of a woman's brain which regulates reproductive hormone levels may become less sensitive to estrogen. Other study findings suggest that the decreases in sensitivity can lead to significantly increased hot flashes and night sweats."

The analysis was led by **Gerson Weiss, MD**, New Jersey Medical

School, who with his colleagues from the SWAN study reported the findings. UMDNJ is one of seven SWAN sites supported by the NIA, the National Institute of Nursing Research, and the Office of Research on Women's Health, all parts of the NIH.

SWAN follows more than 3,300 women, ages 42 to 52 at the beginning of the study in 1995, as they experience the changes associated with approaching menopause. The data for this report came from the Daily Hormone Study, a substudy that involves the daily collection of urine samples and completion of a questionnaire about symptoms, for a period of one menstrual cycle or a maximum of 50 days (if no menstruation occurs).

Through this sampling, the study characterized the fluctuations in hormones such as estrogen and luteinizing hormone (LH). In this study, the hormone levels in some of these middle-aged women reflected a likely insensitivity to estrogen in the brain. The data showed three different patterns of hormone fluctuations in women who did not ovulate: the first group of women had a surge of LH—an "appropriate" response to increases in estrogen. In a second group, the same increases in estrogen were not associated with a surge in LH. In the third group, estrogen levels early in the cycle were similar to those of groups 1 and 2, but, unlike those two groups, did not show further increases. The LH levels in this group



did not show a surge and were higher for most of the cycle than in the other groups. The hormonal patterns in groups 2 and 3 suggest different kinds of reduced sensitivity to estrogen (or abnormal estrogen "feedback") in the brain.

Interestingly, the women in the third group had significantly more hot flashes and night sweats than women in the other two groups. These findings suggest that the hormonal pattern associated with increases in symptoms reflects alterations in the sensitivity to estrogen in the brain. Additional follow-up of the women as they experience their final menstrual period and become post-menopausal is needed to further clarify the hormonal changes underlying the menopause transition as well as those causing hot flashes.

The findings in these women are the first to describe hormone patterns reflecting changes in responses to estrogen and are consistent with previous studies in other mammals that have described similar central nervous system insensitivity to estrogen with aging. ●

Authors of the JAMA article, entitled "Menopause and Hypothalamic-Pituitary Sensitivity to Estrogen," include NJMS faculty members Gerson Weiss, MD, Joan Skurnick, PhD, Laura T. Goldsmith, PhD, and Susanna Park, MD, and Nanette Santoro, MD, from Albert Einstein College of Medicine Montefiore Medical Center.

Keep in Touch

Our faculty and staff welcome your comments, suggestions and questions. We have provided email addresses for individuals featured in this issue. We look forward to hearing from you.

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Patient Referrals

The Neurofibromatosis Center of New Jersey 973-972-2550

The Stroke Center at University Hospital 1-866-27-STROKE (7-8765)

NJMS National Tuberculosis Center 1-800-4TB-DOCS

Center for Human and Molecular Genetics – Adult Onset Genetic Disease Program 973-972-7859

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