Spring 2005

Chironian Spring/Summer 2005

New York Medical College

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INSIDE

Endothelium Is In
From Argentina, With Love
Giving Short Kids hGH to Grow
Richard Noto, M.D., insists the concern over using human growth hormone to treat children who are small is absurd.

His research is helping to explain why.

Pediatric endocrinologist Richard Noto, M.D., knows first hand what it is to grow up short. "It's always been harder for boys, but when I was a kid there was nothing anyone could do about it anyway. I'm 5-foot 4, but I should have been 5-foot 7. I was born small for my gestational age and I never caught up," he says. "I guess I do have a Napoleonic personality, but I still have a vested interest in treating these kids. I love watching them grow and seeing what might have been."

Some 300 youngsters in the metropolitan area who are or were very short are patients of Dr. Noto. (Nationally, the estimate is that 10,000 to 15,000 children need treatment.) The pediatric endocrinologist can treat patients with recombinant human growth hormone (hGH) to help them reach their potential height. (Human growth hormone is abbreviated differently depending on its source. The natural hormone made by the body is written HGH. The genetically engineered hormone is written hGH.) One of several hormones secreted by the tiny but commanding pituitary gland, hGH wields enormous influence over the metabolism of other proteins, carbohydrates and fats; the gland is responding to chemical messages sent by the hypothalamus, the part of the brain to which it is connected.
An assistant professor of pediatrics at New York Medical College, Dr. Noto also performs research on his specialty. He currently has four active grants that total more than $217,000. His latest study, “Hormonal Regulation of Catch-Up Growth in Children Born Small for Gestational Age,” was underwritten by Pfizer’s Pharmacia division for $60,000; the early results appear to confirm Noto’s previous findings that 10 percent of children who are small at birth, without being deficient in HGH, will never catch up. “Nobody knows why,” he says, “but we hope to illuminate the physiology when the study is completed.

Tall wins

“What happens to short children emotionally can be serious. Our society places great emphasis on height. Children who are short for their age have problems because playmates tease them unmercifully and teachers treat them as though they were younger rather than just smaller. Parents tend to do this, too. The children don’t act their age because it’s not expected of them...it is very important to provide emotional support for a child with growth hormone deficiency and to emphasize the child’s many good qualities, so that his height does not limit his perspective.”

A child’s growth hormone deficiency can occur by itself or in combination with one or more other hormone deficiencies. These factors may cause a total shutdown or just a partial one, which would allow production of a small amount of growth hormone, but not enough to support normal development. Any child who is the same height as children two or more years behind him in age, or who deviates from a previously normal growth pattern, should be evaluated by a doctor. Testing and evaluating the child will take several months before treatment begins. “In the end,” says Dr. Noto, “about 10 percent of the children who are brought to see me for a diagnosis never start treatment because their parents change their minds when they learn about possible side effects, the shot-a-day schedule and a commitment for years.”

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Robert W. Amler, M.D., an experienced health administrator, epidemiologist, pediatrician and 25-year veteran of the U.S. Public Health Service, was named dean of the School of Public Health beginning January 3, 2005.

Dr. Amler succeeds James J. O’Brien, Ph.D., vice dean, who was serving as acting dean since the death of Dean Sheila M. Smythe last year. Dr. Amler is the top academic and administrative officer for the school, which became one of only 36 accredited schools of public health in the nation in November, 2003.

Board certified in pediatrics and preventive medicine, Dr. Amler has been an official advisor to the U.S. Surgeon General and other national leaders on a broad range of medical, safety and professional issues. In his previous position as regional health administrator for the Northeast and Caribbean, he led a response task force that integrated public health departments with hospital systems, and established a regional network of volunteer Medical Reserve Corps units.

He also has held posts at the Office of the Secretary of Health and Human Services, the Centers for Disease Control and Prevention (CDC), the Health Resources and Services Administration, and the Agency for Toxic Substances and Disease Registry.

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### On the Cover:

The biology of endothelial cells is inherent in research conducted by nephrologist Michael S. Goligorsky, M.D., Ph.D., professor of medicine and pharmacology, who is board certified in three languages.

Boring but lucky Alberto (Tito) Nasjletti, M.D., left Argentina to do research in America. His stellar career in science is surpassed only by the affection of his family, colleagues and students within his reach.

Assistant Professor Richard Noto, M.D., believes it takes one to know one when it comes to helping very short children grow. The 5'4" pediatric endocrinologist is treating some 300 children at several area locations.
By the age of 7, Julian Faust was significantly off the growth charts. "He came home from kindergarten one day and told me 'the kids say I'm shorter than everybody in pre-K,'" says his mother, Randy. "I'm 5'1" but his father is 5'10". I have a niece, Molly, who's been getting growth hormone for two years and she has tall people in her family too. I took him to Mount Sinai and they did all the testing there. When we told them we were moving to Westchester, they recommended Dr. Noto." Julian, 11, has been giving himself the shots since he was 10. In the first couple of months of treatment with growth hormone, he grew almost an inch. "I have more energy and a better appetite," Julian says, and mom just beams.

Richard Noto, M.D.

(continued from page 3)

hGH discovery
Richard Noto was 8 years old in 1958, the year endocrinologist Maurice Raben, M.D., of New England Medical Center in Boston injected HGH into a dwarf child. The child began to grow normally, and for the next 30 years, thousands of children were injected with hGH derived from the pituitary glands of cadavers. The federal National Hormone and Pituitary (NHP) Program was the only source of supply and there was never enough to satisfy the demand. Moreover, when a child reached a height of 5 feet, the treatment protocol required that HGH be withdrawn and given to another child who had not previously received any. In 1985, this reasoning became moot when science triumphed over supply and demand. Actually, no one knew it at the time, but the natural hormone was killing people from contamination.

In 1985, Genentech, the first biotechnology company in the U.S. to produce a genetically engineered drug, received FDA approval to market Protropin, a synthetic and therefore safer version of human growth hormone that differed from the natural product by just one amino acid. Within a year, Eli Lilly achieved the perfect match—a 191-amino acid hGH that was physically, chemically and biologically identical to the hormone produced by a human pituitary gland. (There are currently five pharmaceutical companies manufacturing hGH in the U.S.) It seemed that a cure for growth hormone deficiency was as close as the corner drugstore. But now that the supply would be plentiful, critics stalled its possible widespread use with a new issue. Should children who were short, but did not test positive for an hGH deficiency, also be treated? While the question continues to spark debate—something akin to the argument about whether children born deaf should receive cochlear implants—the parents of short children and pediatric endocrinologists continue to decide about treatment on an individual basis. Furthermore, the tools of molecular biology and gene research began turning up evidence that testing negative for HGH deficiency did not make a short child "normal." Scientists have found many other causes of short stature that can benefit from treatment with hGH; they expect to uncover more.

"What happens to short children emotionally can be serious.

Our society places great emphasis on height."

Between 1963 and 1985, some 7,700 people received human growth hormone made from cadavers by the federal program. Twenty-six of them eventually came down with Creutzfeldt- Jakob Disease (CJD), a fatal neurologic infection comparable to "Mad Cow" disease in cattle. People in other countries who received HGH also got CJD; in France, 89 out of 1,700 people treated with hGH got it, and in England, 38 people out of 1,848. Many became ill decades after treatment. The longest incubation on record is approaching 40 years.
growth hormone, these boys would end up at 5 feet 2 inches, and girls would measure less than 5 feet," Dr. Noto says.

"An HGH deficiency is only one reason why a child is short," he continues. "Now we know that patients who are short have had problems all along in producing HGH, or have defects in their growth hormonal action. Even children of short parents should be evaluated for other conditions. The FDA has approved growth hormone treatment for renal failure, Turner's syndrome, idiopathic short stature and, uh huh, children small for their gestational age who have not caught up by the age of two. As for the kids with kidney failure, hGH happens to also have a medicinal effect that makes them feel much better.

Hidden effects

"Those who criticize using growth hormone for non-growth hormone deficient children don't understand the problems these children have. As they are growing so slowly, we keep finding more and more things that may be wrong with them. We are not treating children who are normal in terms of their height and growth rate. We are treating children who are short and not growing well. That is why we are performing our latest study—to determine a hormonal basis for why children are born small for their gestational age and do not catch up."

A special relationship develops between Dr. Noto and the family over the years a child is in treatment. "It's not as if you tell a kid to open his mouth and say "Ah" and then throw a spoonful of hGH down his throat. The hormone must be injected every day," he points out. Eventually, a child must learn to give himself the injections for the sake of independence. Dr. Noto says injections never seem to be an issue after he shows his patients what to do. "The biggest problem is with insurance reimbursement and what the hormone costs...it's nearly 20 years since the synthetic was approved, but the price [$5,000 to $50,000 a year] hasn't come down very much," he states.

There are infrequent side effects that seem to affect the children who are more severely deficient than most. There can be fluid retention, with puffy hands and feet, headaches and sometimes hives from an allergic reaction," says Dr. Noto. "The sudden growth spurt also can promote joint pains, carpal tunnel syndrome and rarely, problems with the hips. Adults who got hGH as children have a slightly greater risk for colon cancer, and a link also has been seen with adults and carpal tunnel syndrome." The FDA approved the use of hGH for adult patients in 1996.

As a pediatrician, of course, Dr. Noto sees only children, but there are adults who've been coming since childhood. His growth hormone patients constitute only 30 percent of his practice, but like his offices, they are everywhere. He sees patients at Munger Pavilion at the College and at Westchester Medical Center, where he is director of the Congenital Hypothyroidism Diagnostic and Treatment Center; Saint Vincent's on Staten Island, Phelps in Sleepy Hollow, Good Samaritan in Suffern, Sound Shore in New Rochelle, Our Lady of Mercy in the Bronx and an office in Middletown, Orange County, N.Y.

"My secretary writes everything down for me so I know where I'm going," Dr. Noto admits. The parents of short children will find him, wherever he is.
WITH LOVE, FRIENDSHIP, RESEARCH, and Just About Everything Good in Life!

Alberto (Tito) Nasjletti, M.D., catalyst of the Department of Pharmacology, brings people together for science and fellowship.

His laboratory is as ordinary as Alberto Nasjletti, M.D., claims himself to be. There are no exotic million-dollar microscopes or measuring devices, just the same kind of nuts-and-bolts equipment the professor of pharmacology has used since he began researching the regulation of blood pressure in 1966. He spends most of his workday in a nearby small office, where one more stack of journals on his desk would hide him completely from view. Dr. Nasjletti is comfortable here—designing an experiment or advising a budding researcher or full-fledged colleague, with only an occasional laugh or gesture to show that he is still breathing. He speaks softly and deliberately, choosing his words so carefully that he will sometimes pause, as if waiting until his mouth catches up with his brain. And all the while, Tito Nasjletti is taking care of things from behind the scenes, a brilliant scientist cut from central casting who doesn’t need the stage to thrive.

It’s not that he shuns the limelight.* “I just don’t go looking for it,” Dr. Nasjletti

*As Chironian went to press, the College was informed that Alberto Nasjletti, M.D., has won the 2005 Irvine Page-Alva Bradley Lifetime Achievement Award from the American Heart Association Council for High Blood Pressure.
ABOVE: This Department of Pharmacology lineup comprises the present team of operatives for a longstanding NIH Program Project Grant worth more than $2.1 million. Investigating "Hormonal Control of Blood Pressure" are professors all, from left, Michal Schwartzman, Ph.D.; Alberto Nasjletti, M.D., director; Wenhui Wang, M.D.; John C. McGiff, M.D., department chair, and Nader Abraham, Ph.D. Not shown is Michael Balazy, Ph.D.

says, unwilling to discuss his colleagues who do. His credo dictates that fame is not what counts, only the science does. At the same time, this conviction belies the quality of his research and the esteem in which he is held by his peers, not only in pharmacology, but also in the other basic science departments. Still, even the admiration shown by the Ph.D. candidates he has mentored might leave him wanting were it not for the extraordinary friendship and support he shares with John C. McGiff, M.D., professor and chairman of the Department of Pharmacology. Their relationship is the foundation of each man's outstanding success.

Opposites attract
The cardiovascular dynasty that thrives at New York Medical College has its roots in Milwaukee at the Medical College of Wisconsin, section of clinical pharmacology. In 1971, Dr. McGiff signed on as the new director about the same time that Dr. Nasjletti was completing a post-doc at the Cleveland Clinic, then a major center for hypertension research. "One of my professors told me to write Jack McGiff about a job and I did," Dr. Nasjletti says. "I remember the interview. I accepted the position without even asking what I'd get paid [$11,500]. Money wasn't important. I'd do it over again. If I could relive my life I'd do it exactly the same way."

And so began a union of intellects marked by very different personalities—the irreverent McGiff teaching the respectful Nasjletti "how to write grants and papers, and providing the opportunity to do independent work. He basically supported my research activities for one year until I got my first grants," acknowledges Dr. Nasjletti. Funding commenced with two small American Heart Association awards and an RO1 grant from the NIH for $22,000 over three years. "I've been renewing the same grant since then: 'Hormonal Control of Blood Pressure.' It's 31 years and counting! The hormones keep changing, but the very broad title allows me to study many things," he admits, flashing his famous broad smile.

Big leagues
The RO1 study under his direction evolved into a Program Project Grant worth more than $2.1 million, with other departmental principal investigators (P.I.) and core directors participating. Besides Dr. McGiff they are Michal Schwartzman, Ph.D., and Wenhui Wang, M.D., P.I.s; and Nader Abraham, Ph.D., and Michael Balazy, Ph.D., core directors. A regular RO1 research grant, "Vasoactive Hormones and Blood Pressure Regulation," provides Nasjletti with another $438,000.

"Ordinary? I wish everyone were as ordinary as Tito," says Dr. McGiff, after learning of Nasjletti's self-evaluation. "Tito is the departmental shaman, privy coun-selor and father confessor who supplies a great deal of the glue that makes our department cohesive. We have a 30-year-plus history of collaboration, usually happy. An important element in success in research is a positive attitude regarding ideas and people, and he communicates this. It produces a climate of 'Let's do it! And hard work will ensure our success.' Tito never spares himself and is always ready to help by overflowing with good ideas and new directions...It is this prodigious energy that has allowed him to be a devoted husband and father."

Argentina's loss
Alberto Nasjletti married his high school sweetheart in 1967, five years after they met at a relative's wedding. One year later, they were on their way to the Cleveland Clinic in Ohio for the post-doc, never to return for more
ABOVE: Meet Max Bernard Nasjletti, nearly two—Dr. Nasjletti's first grandchild and the major rival to the long hours he spends in the laboratory.

"Kitty and I came from San Juan, a small town on the Argentine side of the Andes Mountains with maybe 100,000 people. Even with a million people it would have been a small town," he smiles, but then grimaces. "Actually, thousands of people died when the city was largely destroyed by an earthquake in 1944."

His father owned a small clothing shop, where his mother worked afternoons. "I was never inclined to pursue a scientific career, but two of my uncles were physicians," says Dr. Nasjletti, surmising they must have provided the inspiration. Following the Argentine system, he went directly to medical school after high school. "I had a job as a teaching assistant in the department of physiology, and I participated in the research activities. I was very lucky that my introduction to science was from the head of the department, Juan Fasciolo, an internationally known scientist in hypertension..."

"It was the 1960s and after Peron, there was quite a bit of social and political upheaval. We were acutely aware of how dangerous the world was, but in the department I worked in there was a large group of people who were very bright and very liberal—not easy to be in a country governed by the military. We spent the time not only on science, but on a vigorous exchange of political and social ideas. I thought it was wonderful...By the time I graduated I had decided I would not practice medicine, but spend my life in research," says Dr. Nasjletti.

Lucky start

He references luck again, which he holds responsible for every event that goes his way. Oscar Carretero, a co-worker from his job in medical school, had preceded Dr. Nasjletti at the Cleveland Clinic. He introduced his colleague to George Masson, who offered Dr. Nasjletti a post-doc job in his laboratory. "I did very well, learned a lot, published good work and established connections with researchers in the hypertension community," says Dr. Nasjletti. "I started looking for a job and actually was offered a position in the nephrology division at the University of Iowa, but they wanted me to first spend time seeing patients. Uh-uh, no. That is when I heard from Jack McGiff."

Spared of a clinical concentration, Dr. Nasjletti began a total immersion in science that has never waned. "All my life I've been focused on my work," he says. "I have few friends, professionally and socially, and I'm a square person...But in science, we don't live in a vacuum. We are subjected to the influence of many different people because of their work—and especially by those in the institution where we work. That is very impor-

...the chance is always there to discover a new world. I feel this every time we do a truly new experiment. It is wiping the room of darkness and filling it with light."

than a visit to the Argentina of their birth. They have two children. Gabriella is studying for a master's degree in education at Bank Street Teachers College in New York City. Alex, who works in information services at the New York Mercantile Exchange, and daughter-in-law Meridith are the parents of Max Bernard, born September 25, 2003. Pictures of the first Nasjletti grandchild are available upon request.
enced me to look at the metabolism of arachadonic acid and its eicosanoid metabolites...When I began working I thought what I knew could explain everything. That's a sign of pure ignorance. Great scientists can see through lead and take short cuts, but most of us have to rely on trial and error...

"You begin doing experiments and 99 percent turn out wrong, but you learn and you keep doing them. The driving force is the questions you ask and the results you get. Most of the time our hypotheses are wrong, but the chance is always there to discover a new world. I feel this every time we do a truly new experiment. It is wiping the room of darkness and filling it with light. And that's the reason I do this—not for the glory, not because I want to see my name in print or be a department chair. It's for self-fulfillment."

Teaching, too

"You also get to work with interesting people," he continues, "young people whom you can help train, and in a university environment, which is a privilege. What we do here constitutes the fabric of civilized life—over and above how many papers you publish and how many grants you get. And on top of it all, you make a living out of it. It's a pretty good life."

Dr. Nasjletti has written 190 papers and mentored 32 post-doctoral fellows and Ph.D. students, 20 of them at New York Medical College. His CV weighs in with a long list of NIH, American Heart Association and other appointments, and he enjoys his role as the current editor of the American Journal of Physiology: Heart and Circulatory Physiology.

"I've been lucky to have had very good students. This is the point. Whatever success I've had in my career is to a large extent determined by the beneficial influence of my colleagues and the students who have worked in my lab," he declares.

The next question is a loaded one: Where does he go from here? Dr. Nasjletti recognizes the opening and takes it: "I'm not waiting for Jack McGiff to step out and disappear so I can be his replacement. I'm not interested in being a department chair. I'm well aware of my strengths and weaknesses and I know what I am—a good solid scientist who more often than not has been right, not particularly innovative and not likely to win a Nobel Prize. But I am highly respected by my fellow scientists and to me, that's probably the greatest satisfaction."

ABOVE: Among the six scientists who assist Dr. Nasjletti in his regulation of blood pressure research are Frank Zhang, M.D., Ph.D., sitting, assistant professor of pharmacology, and Huan Deng, right, Ph.D. candidate, who are both from China. They use the myograph device to study how contraction of renal arteries is modulated by various vasoactive substances. Here the subject is the enzyme cytochrome P450 2E1, which manufactures 19R HETE that attenuates the response of arteries to constrictor factors such as the hormones vasopressin and angiotensin II.
Michael S. Goligorsky, M.D., Ph.D., examines kidney patients, especially those on dialysis, for signs that cardiac disease or stroke is in the offing.

High blood pressure, elevated cholesterol and smoking are the traditional risk factors for coronary artery disease and stroke. A non-traditional step ahead, you might say, is Michael S. Goligorsky, M.D., Ph.D., a nephrologist who joined the New York Medical College faculty in 2002. He brings to the laboratory a novel point of view after 32 years of treating kidney patients and studying their specific risk for developing cardiovascular disease. He's come to the right place.

"There are wonderful people at New York Medical College working on vascular biology, and since it is my occupation, I thought it would be a good idea to join them," he says.

Dr. Goligorsky is professor of medicine and pharmacology, and director of the
This chart displays the increased mortality for patients with end-stage renal disease compared to the general population. Each vertical increase represents a ten-fold jump in cardiovascular disease for patients on dialysis. At the age of 30, cardiovascular mortality in young adults, regardless of gender or race, afflicts 1 in 1,000. Dialysis patients at the same age already number 5 in 100. Reprinted from *American Journal of Kidney Diseases*, vol. 32, Levey A, J. Beto, B. Coronado, G. Eknoyan, R. Foley, B. Kasiske, M. Klag, L. Mailloux, C. Manske, K. Meyer, P. Parfrey, M. Pfeffer, K. Wenger, P. Wilson, J. Wright. "Controlling the epidemic of cardiovascular disease in chronic renal disease: What do we know, what do we need to learn, where do we go from here?" 853-906, (1998), with permission from National Kidney Foundation.

New York Medical College/Westchester Artificial Kidney Foundation (WAKF) Institute for Renal Research. He was recruited from the State University of New York at Stony Brook on Long Island where he was professor of medicine and physiology. Some of the "wonderful people" who persuaded him to come were Alberto Nasjletti, M.D., professor of pharmacology (see story on page 8) with whom he previously had collaborated; John C. McGiff, M.D., professor and chairman of the Department of Pharmacology; William H. Frishman, M.D., the Barbara and William Rosenthal Professor and chairman of the Department of Medicine; and Alvin I. Goodman, M.D., professor of medicine and former director of the nephrology division.

New realization

"Kidney patients have a 20-fold higher mortality rate than the general population and they are at very high risk for vascular problems," begins Dr. Goligorsky. "So I started looking for ways to prevent senescence and dysfunction as the basis of cardiovascular morbidity and mortality. The main subject of our investigations is the characterization of endothelial cell dysfunction from the cellular standpoint. (The inner side of the heart and all vessels—arteries, veins and capillaries—are endothelial cells.) This syndrome has emerged as the foundation for development of many cardiovascular diseases and progression of diverse renal disease." He goes on to list its characteristics, which if one is looking for them, might easily precede a diagnosis of endothelial dysfunction:

- An inappropriate production of nitric oxide, a vasorelaxing molecule
- Impaired angiogenesis—the formation and differentiation of blood vessels
- The generation of endothelial microparticles
- The propensity of endothelial cells to become prematurely senescent
- The development of microalbuminuria—an excess of the protein in urine that signals possible kidney disease or the presence of some other disease.

"We are attempting to translate our lab findings into diagnostic tests to enable an early detection of endothelial dysfunction in our patients," Dr. Goligorsky says.

More collaboration

The nephrologists are also working with Julian Stewart, M.D., Ph.D., professor of pediatrics, to adapt laser Doppler flowmetric techniques to detect early, preclinical signs of impending cardiovascular catastrophes. And they have added proteomic analysis procedures to discover urinary preclinical diagnostic markers of disease.

There is one researcher in the Graduate School of Basic Medical
These members of Dr. Goligorsky's laboratory are developing independent lines of investigation with funding from the NIH. Standing, from left are Jun Chen, M.D., who studies molecular mechanisms of premature cell senescence; Matthew Plotkin, M.D., who is investigating renal stem cells; Edmond O'Riordan, M.D., who uses mass spectrometer to detect proteins in the urine of patients after renal transplantation; and sitting, Sergey V. Brodsky, M.D., Ph.D., who is examining endothelial microparticles.

Sciences who is particularly happy to have Dr. Goligorsky as a neighbor—

Thomas H. Hintze, Ph.D. ’80, professor of physiology, whose work is similar to Dr. Goligorsky's. This is what Dr. Hintze has to say about their research:

"Michael Goligorsky is one of the most outstanding vascular biologists in the world today, combining the perspectives of both basic science and clinical renal medicine. He has made major contributions to our understanding of the role of endothelial dysfunction in the development of diseases, including diabetes, excessive plasma homocystine and hypertension. Furthermore, he has pursued in detail the physiologic and molecular mechanisms responsible. For instance, Dr. Goligorsky has determined not only the location in the cell of nitric oxide synthase (NOS) enzymes, but also the molecular signaling resulting in the control of NO production. He has had the insight to turn his understanding of these disease mechanisms into potential therapies including the use of arginine, an essential amino acid, to increase NO production; the use of ebselen to increase NO bioactivity, and the use of gene arrays to screen for renal endothelial cell dysfunction. He was not only one of the first to recognize an NOS isoform [gene product] in mitochondria but also to reveal the importance of the cell structure caveolae and the cell protein caveolin in controlling NOS activity. Dr. Goligorsky has brought an additional perspective to the College by studying the role of endothelium in the control of renal vascular function, especially during inflammation.

"One evaluates the contribution of senior scientists based on the quality of publications, the superiority of their co-authors and trainees, and the ability to sustain a research program. By all counts, Dr. Michael Goligorsky has made his mark on biomedical research and has established an international reputation, which he brings to New York Medical College."

**2006 symposium**

Drs. Hintze and Goligorsky have joined to organize an international symposium in Harriman, N.Y., in 2006 that will unite all those captivated by endothelial dysfunction, an approach only a decade old. In the interim Dr. Goligorsky can attend to his three NIH grants, supplemented by joint funding from the university's Institute of Renal Research and WAKF. One of those grants deals with an offshoot—exploring the role played by the VEGF growth factor in microvascular abnormalities in diabetes mellitus.

"We have this ability to look into the mechanisms of electrolyte disturbance and renal dysfunction that would manifest themselves in diverse symptoms," Dr. Goligorsky says. In all seriousness he adds, "Nephrology is the most intellectually challenging subspecialty in medicine. Just look at
ANATOMY OF A BLOOD VESSEL: Endothelial tissue plays a major role in the human body. The skin, the coverings of most organs and the lining of blood vessels are composed of endothelial tissue. Essentially all of the endothelial cell functions involve interactions with neighboring cells or extracellular matrix, in which the endothelial cell surface components must play an important role. Endothelial cells secrete a number of factors that may elicit biological responses by various signal-transduction mechanisms. Such mediators are implicated in regulating the permeability of the endothelium and can promote chemotactic responses like inflammation and blood clotting.


the number of nephrologists who are deans and department chairs.”

On the personal side, Dr. Goligorsky is less serious when he talks about his career as “the best trained nephrologist on the planet.” There may be some truth to the claim as he is three times board certified, and in three languages, Russian, Hebrew and English. Born in Ukraine, he graduated from Kiev Medical Institute where he did a residency and fellowship in internal medicine. In 1980 he moved to Israel and repeated three years of residency training at Soroka Medical Center at Ben Gurion University. The year 1983 is significant for his having met his wife Rose, who is a teacher of Hebrew at a school not far from their home in Riverdale, N.Y. They had moved in 1984 to the U.S. where he undertook a three-year fellowship in nephrology at the Washington University School of Medicine, St. Louis. Their son, David, is an engineering student at Boston University.

Michael Goligorsky is passionate about sharing credit for his accomplishments. He is especially pleased with the number of collaborators, who in addition to Stewart and Nasjletti, include Stephen Adler, M.D., professor of medicine and physiology; Veronica Delaney, M.D., Ph.D., associate professor of medicine and surgery; Renee Garrick, M.D., professor of clinical medicine; Praveen Chander, M.D., professor of pathology; Jun Chen, M.D., instructor of medicine; Sergey V. Brodsky, M.D., Ph.D., assistant professor of medicine; Matthew Plotkin, M.D., assistant professor of medicine; and Edmond O’Riordan, M.D., instructor in medicine. Dr. Goligorsky mentions that by spring, he will have three new postdoctoral fellows and one professor on sabbatical joining the ranks from abroad.

To reassure that he is here for the duration, Dr. Goligorsky explains in measured words, with a tone so low and quiet you might think he was giving away a state secret:

“This is a project for many years. There are people all over the world trying to understand this dysfunction. The attraction of New York Medical College is why I came.”

Not so different

Though the workings of academia are somewhat different than the mechanisms of federal agencies, Dr. Amler says their missions have great similarity—to improve the health of “everyone, whether a patient or a constituent, by working with university centers, health plans large and small, individual providers and government agencies.” Speaking with the enthusiasm that comes with a new job, and the willingness to hear what everyone has to say, Dr. Amler decides that “sometimes being the new kid on the block is a challenge. But it is also a great chance to learn and work with some fascinating people.”

There will be a learning period where he will observe and gain knowledge.

“New York Medical College already has an important reputation as a leader in health care. The challenge for the School of Public Health is to find more ways to translate all that talent and knowledge for the good of the people we serve. In other words, to put a human face on the medicine we teach and practice,” he says.

Dr. Amler’s previous adjunct faculty appointments include Columbia University, Emory University and at Uniformed Services University of Health Sciences in Bethesda, Md. He has co-authored more than 200 scientific publications, including contributions on environmental risk assessment, vaccine efficiency and national health policy.

Dr. Amler is a graduate of the Bronx High School of Science, Dartmouth College, Rutgers Medical School and the CDC’s Epidemic Intelligence Service.

He completed his residency in pediatrics at Bellevue Hospital and St. Luke’s-Roosevelt Hospital in New York City.
MEDICAL STUDENTS FLOURISH as Ombudsmen in the Student Senate

Medical school is notoriously demanding—from the huge amounts of data to be memorized to the clinical pressures that effectively drive home the dictum that your life will never again be your own. Yet every year, five men and women from each class recognize their need to do more than study or sleep when they're not in class. They are elected to the Student Senate, the organization responsible for ensuring that the interests of the members of the student body are represented. According to its constitution, "the primary purpose of the Student Association, to which all medical students belong, is to make the students of New York Medical College direct participants in the affairs of the College."

The senate comprises more than 20 subcommittees to deal with any and all problems the students face, which may range from the mundane (securing toilet seat covers) to the ultra-worthy (initiating a dental plan entirely on their own), with most calls for action falling somewhere in between. The senators—who formally meet monthly but deal with their constituents constantly—know very well what purpose they serve. Says one senator, "Other students like this group. They are very glad to let us register a complaint instead of doing it themselves."

Here is a sampling of Student Senate members who were able to meet with the writer and photographer at the end of a very long day in November.

LAURA FASULO, 31, a virtual dynamo since she entered medical school, is president of the Student Senate. As a first-year, she was chairman of Student Physician Awareness Day (SPAD), senate treasurer in her second year and vice president last year. Fasulo is on everybody's list for getting things done, such as heading up the student part of the College contingent who walked to raise money for the American Heart Association. Hailing from Lake George, N.Y., the married graduate of Cortland College is radiology-bound.

FELICITY (LISSIE) FISHMAN, 25, vice president, has been a senate member all three years. A graduate of Middlebury College in Vermont, she comes from Belmont, Mass. Fishman delights in being a senator because "it has helped me to get to know my classmates in a different way. I've brought to light issues such as class scheduling and made things work better. The senate also helps in your relationship to faculty as they use you to communicate with the rest of the class. It's really nice to accomplish something that makes student life easier."

CHRISTOPHER HUNTER, 27 and married, is running SPAD this year. He arrived fortified with a Ph.D. in neuroscience from the Medical University of South Carolina and says he is "floating" toward emergency medicine. Home is Bucks County, Pa., across the state from the University of Pittsburgh, where he earned his undergraduate degree. "I got involved because I wanted to know upper classmates as well as I know my year. I'd really like to bring a tutoring service here... Other students find it easier to ask a student for help rather than going to faculty," he admits.

TEVIAH SACHS, 27, from Boston is another three-year member of the senate. The Colgate graduate is headed for surgery, but he's not yet sure where in the Northeast he will apply. "Being a senator has given me a feel for how to interact with people who function in an administrative capacity as well as with other students," he says. "There are lots of aspects to this school that could run more smoothly and I try to be someone who can work out some of the kinks. It's especially enjoyable when you see things come to fruition."
ERIN E. STEVENS, 26, graduated from Ithaca College in upstate New York. A senate member for three years, she says, “Being a member helps me manage my time better. I need to always be busy, plus, I like helping my classmates. The year I wasn’t a member, the third year, I worked on one of the committees. My niche is that I know more random stuff than the others—on the inside since I was secretary my second year—who to talk to, go to, and what’s been done before.” From Meriden, Conn., she’s pursuing ob/gyn residencies in the Northeast.

BRIAN W. MOSS, 28, is primed for an orthopaedic surgery residency on the East Coast or the Southwest because his home state of Idaho has none. “There is one at the University of Utah,” he advises, but the graduate of Brigham Young University says he’s not interested in going there. Being a senator all four years “has given me a behind-the-scenes look at what makes medical school work,” he says. “This opportunity to meet the majority of students in my class and help them with their complaints has made for some good times.”

HORMOZD BOZORGCHAMI, 24, from Davis, Calif., was born in the U.S. of Persian descent. The University of California at Davis graduate is a second-year spending his initial term on the senate. “A lot of students told me to run,” he says, “because I get along with everyone and there are issues I’d like to do something about—getting power outages moved to the afternoon, when there is daylight, and more channels on the cable TV. I love it! I know everybody and it’s very gratifying to have people come to me for help.” Emergency medicine is his choice.

THOMAS C. HAWES, 28, of New Canaan, Conn., is married and the father of two sons. Another graduate of Brigham Young, Hawes has served the senate all four years. He’s applied only to East Coast schools for anesthesiology and looks forward to Match Day to learn his destination. “I have a better appreciation of what goes into the curriculum and how much effort the course director puts in,” says Hawes.

JOHN BRACA, 27, formerly of Easton, Conn., has his heart set on neurology or neurosurgery somewhere in the Northeast, as he and his wife have family there. “But I’d go anywhere if I got into a great program,” he states. The Fordham University graduate was elected both times he ran. “I’ve been able to see what goes on behind the scenes and how important it is to do something the correct way in order to get things done. The senate gives students a voice but allows them to stay anonymous. Then it’s so easy to complain,” says Braca.

YASMINE HENZE, 24, has made no decision yet on a residency. The University of Connecticut grad from New Fairfield, Conn., is a second-year spending her first year on the circuit. “The platform I ran on was that the first year was really difficult, and there were many things to change that would relieve the stress, such as upgrading the gym and airing complaints. I’d also like to start a subcommittee on technology. We’ve downloaded anti-virus software, too. I ran because I’m self-motivated, but I know I can communicate effectively.”

STUDENT SENATORS: Standing, from left are Chris Hunter, Teviah Sachs, Erin Stevens, Brian Moss, and Hormozd Bozorgchami. Seated, from left are Lissie Fishman, Laura Fasulo, John Braca, Tom Hawes and Yasmine Henze.
MacKevin Ikechukwu Ndubuisi, Ph.D. '99, is relocating to keep his science sizzling and himself from the cold.

Budding scientists have always been attracted to America by the educational opportunities that abound. But as life would have it, one enterprising young man from Africa found there was one definite drawback attached: the weather. MacKevin Ikechukwu Ndubuisi, Ph.D. '99, was 27 when he left his native Nigeria and, he has suffered the cold of Northeast winters in silence and dignity. But now that Dr. Ndubuisi has accomplished his educational objective, he is looking to find the best job available in Atlanta, where his family has already settled. "I grew up in a very warm climate, though since most of my residence in the U.S. has been in the cold northeastern region," he says. "I don't like it one bit. Just give me some 100-degree weather."

He's not likely to find that kind of hot weather in Atlanta, where the average daily temperature is 61.3 degrees, but he'll take it. Atlanta represents the next step after a carefully designed education that has fortified him with an array of molecular biology techniques.

Finding a job
"Jobs in science are hard to come by. My ideal job would be a research scientist in a biotechnology or pharmaceutical company. However, a lot of these jobs are usually not posted anywhere," he points out, "and the best chance of landing one is by networking." It also doesn't hurt to have a CV like his. While at the College, Dr. Ndubuisi received the prestigious United Negro College Fund (UNCF)/Merck Predoctoral Dissertation Award.

After graduating he joined the department of cellular, molecular and developmental biology at Yale as a post-doctoral associate, where he received the equally prestigious UNCF/Pfizer Postdoctoral Fellowship Award.

For two years, Dr. Ndubuisi has been at Memorial Sloan-Kettering Cancer Center in New York City investigating colon cancer, trying to develop a gene quantification assay for analyzing gene expression, amplification and deletion, considered important in the progression of the disease. He is eager to publish the results.

"I joined the laboratory of Dr. Phillip Paty, a colorectal surgeon at Sloan-Kettering, in October 2002, right after completing my fellowship at Yale. My group was working with K-ras oncogene
mutations and their effect on the late stages of tumor progression. We found that in about 20 percent of cancers with K-ras mutation, there was an increased amount of K-ras mutant allele compared to the normal allele. We also found that the imbalance was due to extra copies of the chromosomal segment that harbors the K-ras gene. Our findings strongly implicate K-ras as a major oncogene driving the late stages of tumor growth and metastasis in a certain subset of colorectal cancers. I have prepared a manuscript that will soon go to a peer-reviewed journal for publication," he informs.

Super PCR

"In order to pursue a similar analysis in other oncogenes, we wanted a robust method to quantify multiple genes simultaneously. None of the available quantitative PCR methods could handle more than 2 or 3 genes at a time without greatly sacrificing accuracy, and none of the available DNA microarrays were suited to our needs. So I set out to develop a highly precise quantitative PCR assay that could simultaneously analyze 20 to 30 genes in a single reaction. I have confidence that I can do this, but probably in small incremental steps. I will try 4 genes, and if it works, 10 genes and then to 20 and 30," says the cell biologist, "with my goal being 50 to 100 genes simultaneously. We intend to develop this assay as a powerful tool for analysis of gene expression and gene copy number in human cancers."

This is not exactly what occupied Dr. Ndubuisi while he was a Ph.D. candidate at New York Medical College. "As part of my graduate project I investigated interleukin-6 (IL-6) transport in blood from melanoma patients subjected to different active specific immunization protocols," he says. "My mentor, Dr. Pravin Sehgal, pioneered early research in IL-6, which he co-discovered in 1980.

"I also became interested in the cellular physiology of STAT3 [Signal Transducer and Activators of Transcription], proteins that when activated mediate the response of a large number of cytokines and growth factors by signaling from the cell surface to the nucleus. The lab at that time was zeroing in on a phenomenon we discovered in which STAT proteins lose their immunofluorescence when stimulated with IL-6 under certain conditions. While investigating the biochemical nature of STAT3 during this phenomenon, we found that, contrary to the generally accepted model of STAT signaling proposed by a molecular biologist, Dr. James Darnell in 1994, we were unable to detect monomers [single proteins] of STAT1, STAT3 or STAT5 in our cell lines. Instead we found STAT complexes of size 200-400 kDa that we called 'statosome 1' and 1-2 MDa we named 'statosome 2'. This indicated that STAT proteins were in complexes with other protein partners. Little did I know then that this finding was going to topple the standard model five years later. But I am glad that recent studies from other groups now confirm our findings. It shows that by asking the right questions, great science can be accomplished in universities like New York Medical College."

Stellar accomplishment

His landmark publication, Ndubuisi et al (J Biol Chem 274: 25499, 1999), was cited by none other than Dr. Darnell as "a good paper" last April, when the Lasker Award winner from Rockefeller University gave the keynote address at the Keystone symposium. "It is very rare that someone's Ph.D. thesis leads to such a massive paradigm shift in a very large and competitive field the way MacKevin's did," declares Dr. Sehgal, with obvious pride at his former student's success. But Dr. Ndubuisi had already decided to move on to his next frontier.

"I veered away from cell signaling involving the JAK-STAT pathway at Yale, where I did my first post-doc," he says. "There I studied the mechanism of action of the medicinal herb feverfew, biologically known as Tanacetum pathenium. It has been used since ancient times to treat inflammation and fever, and it seems to
The American College of Surgeons (ACS) bestows an award each year for "original thought combined with the first presentation of work that has led to a milestone in the advancement of surgical care." The Jacobson Innovation Award is named for Julius H. Jacobson II, M.D., who created the endowment in 1994. Six Americans have won the accolade.

Last June, the 2004 award went to Harry J. Buncke, M.D. '51, for his pioneering work with microsurgery. Dr. Jacobson also is a microsurgeon. It had taken 10 years for the ACS to celebrate the technique by honoring Dr. Buncke, who is known in most quarters as the father of microsurgery.

Not that Dr. Buncke has gone without in the 40 years since he performed the first surgical replantation using the ear of a rabbit. The memory of it is still fresh today: "Those vessels in and around the ear are the same size as in your finger." This was a milestone in the development of the field of microsurgery because it was the first report of an amputated part that was successfully reattached involving blood vessels 1 millimeter in size. The surgical society archives also credit Dr. Buncke with performing the first toe-to-hand transplant in a rhesus monkey, 1966; the first microvascular transplant in the world, 1969; the first great toe-to-thumb transplant in the U.S., 1972; the first successful scalp transplant in the U.S., 1976; the first four-finger replant in the U.S., 1979; and with associate Rudolph Buntic, M.D., the world's first successful tongue replant, 1997.

Distinguished career
Indeed, there have been many commendations that followed Dr. Buncke's pursuit of innovation, including election as one of the ten most outstanding plastic surgeons of the 20th century by the American Association of Plastic Surgeons; the Markowitz Award from the Academy of Surgical Research, 2000; and an honorary professorship from the French Ministry of Education. He became known worldwide by delivering distinguished lectureships at more than 50 institutions, and beginning in 2005, the Harry J. Buncke M.D. Annual Research Lecture will be given at the annual meeting of the American Society of Reconstructive Microsurgery. He is also the author of four books and more than 400 publications, and a consultant for television and movies.

The research began in a garage and a laboratory at Stanford University in northern California, where he made his own microsurgical instruments and developed fine nylon sutures with...
hand-made needles bonded directly to the end of the suture. Since 1975, Dr. Buncke has directed what is now the California Pacific Medical Center, Davies Campus, formerly the Ralph K. Davies Medical Center, division of microsurgical replantation. The 82-year-old surgeon is still counted as a member of the plastic surgery staff at Mills Memorial Hospital, San Mateo, where he started in 1959. He retains faculty appointments as a clinical professor of surgery at the University of California, San Francisco, and associate clinical professor of surgery at Stanford University.

Retires clinically
Dr. Buncke retired from clinical practice in 2003, as did his wife, Constance M. Buncke, M.D. '51, who practiced dermatology. The Bunckes were married before they decided to go to medical school together, selecting New York Medical College Flower and Fifth Avenue Hospitals in New York City. As an undergraduate of Lehigh University in Bethlehem, Pa., Dr. Buncke had spent two years studying industrial engineering and business administration when the Second World War interfered. It was 1946 by the time he returned and decided to change course for pre-med. Following medical school he interned at Metropolitan Hospital, did his residency in surgery at Flower and Fifth Avenue Hospitals, and spent another year there as chief resident. A sub-specialty residency in plastic surgery at Bronx Veterans Hospital, Cornell Medical School and New York Hospital occupied two more years, followed by a fellowship at the Plastic and Maxillofacial Center, Queens Victoria Hospital in Sussex, England. Then he spent half a year as senior registrar at the Plastic Surgical and Burn Unit, Glasgow Royal Infirmary in Glasgow, Scotland.

"Nobody really appreciates how complicated the surgery is that we do," says Dr. Buncke. "We've trained more than 100 microsurgeons from all over the world. Oh by the way, the genito-urinary microsurgeon who put John Wayne Bobbit back together was one of ours." He goes on to mention that he and his colleagues handle a great number of industrial injuries and amputations, but will not operate when transplantation from another person is involved. "The amount of immunosuppressant involved is toxic and dangerous, and we won't suppress the immune system for a non-fatal problem," he declares.

Promising research
So in his retirement Dr. Buncke continues to write papers and do research on composite tissue allografting, the transplanting of tissue without using an immunosuppressant. "We've been able to do it with rat legs," he says, "using immunosuppression for only a couple of weeks and then stopping all drugs. A lot of people are working on this in California, Louisville and New York."

Asked if it will happen in his lifetime, he responds, "We'll be able to do it in the next five to ten years, and I'll be around, the good Lord willing."

The Buncke Microsurgery Research Foundation is directed by one of his three sons, Gregory M. Buncke, M.D. His daughter, Adele Buncke, M.D. '90, chose her parents' medical school after it relocated to Valhalla. Geoffrey Buncke, M.D., also practices microsurgery, and the youngest Buncke, Paul, is a building contractor.

One should note, in a return to the "small world" department, that the Buncke good fortune and what has accrued to society has been made possible by the contributions of none other than the aforementioned philanthropist Julius H. Jacobson II, M.D., director emeritus and the Distinguished Service Professor of Surgery at the Mount Sinai School of Medicine in New York City.

In front of 200 people during the presentation of his award from the American College of Surgeons, Dr. Buncke thanked Dr. Jacobson for his role in the microsurgery story, and for funding the award—one of five prizes Jacobson underwrites at various hospitals in the U.S. and Israel. "Dr. Buncke was very gracious at the award dinner," says Dr. Jacobson. "I think he is one of the great men of this country."
How to Swap a Career in the Arts FOR A PROFESSION IN EPIDEMIOLOGY AND CLINICAL RESEARCH

Marsha Zion, M.S. '99, M.P.H. '99, B.P.S., found her niche at a world renowned rehabilitation hospital.

Most of us carry around the desire to be doing something else with our work lives. Even if you don't believe you are qualified for the job (think of a would-be architect who can't draw and hates math), if you're willing to start all over again, anything is possible. Marsha Zion spent two decades designing and marketing fine silver and gold jewelry, and she had credentials to boot—an associate of applied science (A.A.S.) degree in design from the Fashion Institute of Technology in New York City.

“I was looking for something,” says Zion, her eyes darting as though she still might be able to find it. “I was doing business in the daytime as Marsha Zion Jewelry and taking classes at night in epidemiology—at the Columbia University School of Public Health and at New York Medical College.” When she decided to commit to a degree, Zion chose the New York Medical College Graduate School of Health Sciences, which became the School of Public Health in 2003. In 1999 she was awarded an M.P.H. degree in Epidemiology and an M.S. degree in Biostatistics.

Science interest

There were at least two reasons why Zion was successful in changing careers from jewelry design to that of Program Manager at Helen Hayes Hospital Clinical Research Center in West Haverstraw, N.Y. Paul Visintainer, Ph.D., program director of Health Quantitative Sciences, was her thesis adviser. The engaging Dr. Visintainer has long been lauded for his ability to simultaneously inspire serious careers at the same time he is helping the statistics-challenged students through the required course-
That Zion did very well in the pro-
gram did not surprise her family, friends
and colleagues who knew that she had
graduated from the prestigious and
highly selective Bronx High School of
Science.

"Paul is a very good teacher," she says
quietly. "He was always very supportive." 
Her thesis dealt with a project he hap-
pened to be working on: "Impact of
antenatal steroids on intra-ventricular
neurohemorrhage in pre-term infants." 
The study confirmed earlier findings of
the beneficial effects of maternal
steroid treatment in preterm birth,
which is now standard care, Zion says.

Practicing
on the side
After earning her degrees, Zion worked
at Columbia University's Sergievsky
Center as a project coordinator for a
study on febrile seizures—convulsions
that are provoked when the body tem-
perature spikes. "I was very interested in
neuroepidemiology," she says. "I left
Columbia because I had moved to
Rockland County, and as a single
mother of two, I wanted to find some-
thing closer to home." Helen Hayes
Hospital, where she found a synergy of
clinical and basic research and epidemi-
ologic studies, is only 20 minutes from
her home in Tappan.

Founded in 1900, Helen Hayes Hospital
is operated by the New York State
Department of Health and is affiliated
with New York Presbyterian Healthcare.
The 155-bed facility is said to be the
largest and most comprehensive physi-
cal rehabilitation hospital in the state.
There are four distinct research centers
there, currently holding $11 million in
funding from the NIH and other organi-
zations; she works at the Clinical
Research Center where her field is
metabolic bone disease, primarily
osteoporosis.

"Three times the NIH has designated
Helen Hayes a specialized center of
research in osteoporosis, and we are
the coordinating center for the New
York State Osteoporosis Prevention
and Education Program," she beams.
"We are known for our research into
parathyroid hormone as a treatment for
osteoporosis. Zion works on a number
of projects with one epidemiologist
and two endocrinologists. "I am pro-
gram manager for the bone density
measurements taken for a 73-site inter-
national study of the safety and efficacy
of a new intervention to prevent osteo-
porosis," Zion reveals. "We also have
ongoing studies of the effects of various
treatments for the disease, and of the
predictors of bone health... We recently
completed data collection for a five-
year longitudinal study of the determi-
nants of stress fractures in a young pop-
ulation of West Point cadets; and for a
study of bone health among a popula-
tion of vitamin D-deficient, post-
menopausal black women. The data
showed that supplementation with vit-
amin D improved calcium homeostasis
and bone turnover in three months."

Efficacy phases
Although Helen Hayes gets contracts
from various pharmaceutical compa-
nies that use cooperating patients
during the later stages of drug devel-
opment, Zion does not work on these
projects. "I'm responsible for oversight
of acquisition of the bone density
measurements at the clinical sites,
and quality control of these measure-
ments in house. I also supervise a staff
of three in related data management
and statistical analysis for our in-
house studies."

When she casually mentions that "one
of the top three specialists in osteo-
porosis research is Robert Lindsay,
head of clinical research at Helen Hayes
for 20 years," Zion appears proud and
eager to be along for the ride. "I think
research on osteoporosis is important.
In terms of numbers, there are going to
be a lot more people with the disorder," 
she says. "So with that in mind, I've
been thinking about going back for a
doctorate."
be very effective against migraine headaches and fever in spite of the fact that very little is known about how it works. We showed that parthenolide’s mode of action was to inhibit a critical kinase in the inflammatory signaling pathway.” At the time, Dr. Ndubuisi also worked briefly on exploiting the body’s natural means of destroying proteins that are improperly folded, or are no longer needed by the body, to specifically target disease-causing proteins for destruction.

**Career choice**

“After completing your Ph.D., you literally step into a wide open field. In the event that you fail to land your dream job right away, you have opportunities to explore other related interests and broaden your scope with post-graduate positions,” Dr. Ndubuisi points out. Having done just that, it remains to be seen whether he will stay with his original plan that began with an undergraduate degree in clinical chemistry from the University of Nigeria Teaching Hospital in Enugu. “I was good in science and they were my favorite courses,” says Dr. Ndubuisi. “My father was a railroad engineer, but there were others in my family in science. My mother was a registered nurse. I’m one of three boys and five girls. My older brother has an M.S. in biochemistry and my sister studied biology.”

He found out that Kent State University in Ohio had a special program in medical technology, so he started for a B.S. degree by essentially repeating what he had studied in Nigeria. He received a master’s degree from Texas Christian University in Fort Worth, and worked as a microbiology technologist in a nearby hospital. Then came the move that pushed him north into the cold of White Plains, N.Y. He got a job as lab coordinator and medical technologist at Saint Agnes Hospital, an affiliate of New York Medical College that recently closed. When he left Saint Agnes in 1993, his destiny was clearly in sight. Having already made up his mind to further his education, he joined the College as a graduate assistant and became a Ph.D. candidate in the Department of Cell Biology and Anatomy.

**Well prepared**

“I think the program at New York Medical College is a very solid one. The broad focus enabled me to easily delve into other areas like genomics and chemical genetics,” he says. And thanks to programs like UNCF/Merck and UNCF/Pfizer science initiatives for minorities that encourage young black scientists, he was able to take care of his family while he spent so much time in the lab. With all that behind him, he is sure about what comes next.

“I’m really looking to further push the development of a multiplex assay for gene quantification, with the hope it would be useful in other areas of medical science like infection, vaccine response and other types of cancer,” says Dr. Ndubuisi. Left unsaid but understood is that he’d like to accomplish it all in the hottest part of Georgia, where he will have the support of his wife, a registered nurse he met while working at St. Agnes, and their six-year-old twin boys.
Medal of Honor Winners
Bemoan Managed Care
But Laud Their Profession

Most physicians who have been practicing medicine for a generation or two will agree it isn't what it used to be. The complaints may be cliché, but there is comfort in commiseration: managed care has tied their hands, preventing them from practicing medicine in the way they dreamed they would during medical school. And yet, neither Clyde Ikeda, M.D. '79, Charles F. Wooley, M.D. '54, nor Louis E. Fierro, M.D. '60, would have missed the opportunity, no matter how limited at times, to contribute to people's lives. In fact, Drs. Ikeda, Wooley and Fierro, who received the Alumni Association Medal of Honor at its 122nd annual banquet at the Waldorf Astoria Hotel, New York City in May, expressed profound gratitude at being able to dedicate their careers to helping others.

For the past 25 years, Dr. Ikeda has donated his skills as a plastic and reconstructive surgeon for disadvantaged children in Guatemala. He regularly travels to the Hospital De La Familia where he performs charitable surgery on children with cleft palates and other congenital anomalies. In 2001 the hospital honored him with a commendation "in appreciation for his devotion, inspiring team leadership and medical expertise, which have provided healing and new hope for thousands of the indigent Mayan population of the region." Dr. Ikeda serves on the hospital's board and has been its medical director since 2000.

"It's hard to believe I graduated from New York Medical College 25 years ago," Dr. Ikeda said upon accepting the award. In the quarter of a century he has volunteered his skills in Guatemala, as well as Peru and Alaska. In San Francisco, where he lives and works, Dr. Ikeda started a 24-hour clinic for substance abuse for the indigent poor in the Bay Area. In recognition of his work there, San Francisco's Mayor Willie Brown signed a proclamation designating November 1, 2001, as Clyde J. Ikeda, M.D. Day.

But it is his work with the children of Guatemala that seems to touch him most deeply. "After the successful repair of a cleft palate, the smile that emanates from a mother is the most rewarding gift of charity and hope," he said.

Medal of Honor winner Charles Wooley, a renowned scholar and teacher, has also dedicated his career to medicine and public service. Certified in both internal medicine and cardiology, Dr. Wooley has received dozens of awards and honors during his 50-year career. But he told his fellow alumni that they pale when compared to the Alumni Association Medal of Honor. "The prestige involved in this medal lies in the seal of New York Medical College," said Dr. Wooley, who joined the College's "Alumni Wall of Fame" in 1999. "Together we share this legacy."

Dr. Wooley's personal legacy is already impressive. Among his many awards are the U.S. Public Health Service's Career Research Development Award and the Charles F. Wooley Transmission of Excellence Award, which the Fellows-in-Training in the Division of Cardiology at Ohio State University established. In addition, the American College of Physicians honored him with its Laureate Award in 2002.

As a visiting professor at universities around the country, Dr. Wooley has a dozen "outstanding teaching" awards to his credit. Currently, he is a scholar-in-residence at Ohio State University's Medical

(continued on page 33)
TWO DOCTORS
Who Love Their Work

EVAN HARAWITZ, M.D. ‘04 AND ALAN HARAWITZ, M.D. ‘77

Take Alan Harawitz, M.D., ’77. Dr. Harawitz has been practicing pediatrics in Monroe, N.Y., long enough to be treating the children of his former patients. One former patient, now a pediatrician, has even joined his practice. That’s his son, Evan Harawitz, M.D. ’04. While having spent summers as a camp counselor may not sound noteworthy, it does point to his interest in children, which has led him to a career in pediatrics.

Scenarios like these speak volumes about affection and respect: the affection both doctors bring to their work and the respect their patients have for them. And yet, what says the most is Evan Harawitz following in his dad’s footsteps.

Evan says it wasn’t so much having a physician for a dad as seeing how much Dr. Harawitz loved going to work that prompted his desire to become a doctor too. “When I’d go with him to see patients at night, even though he’d gotten called in from home, he was always happy to see whoever was there,” Evan says. Now in his first year of residency at Westchester Medical Center, Evan already delights in his work. “I always get a better feeling when I walk into a room with a kid there, even if it’s a sick kid,” he says. “You can always get a kid to smile.”

Well, he doesn’t mean that literally. But when he can’t soothe a crying child on his own, he draws on lessons his father taught him. “My dad showed me what it was like to be in private practice, how to deal with a crying kid and how to deal with parents.” Parents?

“I told him that the most important thing in medicine is to listen to what parents say,” the elder Dr. Harawitz says. “You’re with the child for 10 minutes doing an examination. They’re with the child all the time. You’ve got to listen to people. History is 90 percent of medicine.”

That’s sound advice from a physician who’s relished his work for nearly 30 years. Sure, Dr. Harawitz has his complaints. “You used to deal with patients exclusively,” he says. “Now you deal with patients through insurance companies and other providers.”

Dr. Harawitz has tried to warn Evan that practicing medicine will be different when he completes residency than it was as little as 25 years ago. He has tried to explain to his son that practicing medicine is much more of a business than it ever was. But Evan isn’t worried. “There are always going to be sick kids out there, and I’ll always have a secure job in that respect,” he says. Besides, he adds, “I never knew what it used to be like. This is all I’m ever going to know.”

To be sure, practicing pediatric medicine is the only thing Alan Harawitz ever wanted to do. “I wouldn’t have been happy doing anything else,” he says. “I wouldn’t have been good at anything else.” He certainly wouldn’t have had the opportunity to treat a second generation of people with their kids remember him...

“Wherever he goes people with their kids remember him...”
JOAN P. LIMAN, M.D. ’83, M.P.H. ’93
Taking Cancer in Stride, She Signs on at Metropolitan Hospital

Personal misfortune takes its toll in different ways. It leaves some people bitter, some resigned. Yet there are those, like Joan P. Liman, M.D. ’83, M.P.H. ’93, who find in misfortune strength and reasons to persevere. She has faced more than her share in the past 20 years, including several bouts of cancer that ultimately prevented her from becoming a licensed physician. But Joan Liman isn’t one to feel sorry for herself. In fact, when one door closes she sees another one open.

Dr. Liman has a sharp wit and a broad smile. She enjoys talking about her current position as assistant dean and deputy to the medical director at Metropolitan Hospital Center, a College affiliate in Manhattan. With gusto she describes how she helps students acculturate to medical school and residency, makes sure doctors undergo training in cultural competency and HIPAA regulations, and puts together courses or arranges seminars on urban health. She is eager to add that she sits on the hospital’s ethics and risk management committees and teaches at the New York Medical College School of Public Health. Dr. Liman is unequivocal about liking what she does and just as comfortable admitting that it wasn’t what she’d planned.

Although she always knew she wanted to be a doctor, she didn’t go to medical school until age 30. In her younger days, she got married, gave birth to daughter Melanie and tried her hand at a few different careers. She also battled depression that was so acute it put her in the hospital, where she received shock treatments.

“I had a nervous breakdown when my daughter was four,” Dr. Liman reveals. “If God had given me a choice between depression and cancer I’d have said, ‘Give me cancer.’ Depression is so debilitating.” And yet, it was the depression that fueled her decision to go to medical school. “I was not happy being just a wife and mom. I knew I’d be a better parent if I was a more fulfilled person.”

Her letter of acceptance from the College arrived on Valentine’s Day, 1979. “It was the best Valentine’s gift I could have gotten,” she recalls. Two years later, at 32 and in her second year of medical school, she discovered a lump in her neck. “We were learning physical diagnosis,” she says. “I was palpating myself and found this big lump. I remember thinking, that’s not supposed to be there.”

The lump turned out to be Stage 4 non-Hodgkin’s lymphoma. Some students would have quit school right then and there. Dr. Liman insisted on taking her boards. Then she had surgery and started chemotherapy, with every intention of returning to school and finishing on time. “I waited so darn long to get to medical school I decided, I’m going to get this degree, even if it’s posthumously,” she says with a rueful smile.

Dr. Liman spent her third year of medical school as a student and a patient. Her days began with classes and ended with chemotherapy. “It was like being at both ends of the stethoscope at the same time. During the day I was trying to put IVs into kids,” she says, reliving her pediatric rotation at Metropolitan Hospital and her many unsuccessful attempts to start children’s IVs. “Later I’d go for chemo and when they couldn’t get the IV into me, I thought, this is God’s revenge.”

Dr. Liman finished chemotherapy the same year she graduated (on time), in spite of recurring depression and the discovery of a lump under her armpit that turned out to be benign. Her perseverance paid off. But it couldn’t persuade her to continue a pathology residency at Lenox Hill Hospital, where she was performing autopsies on patients who had died of lymphoma. Being reminded constantly of her own illness forced her decision to quit. So did her commitment to her marriage, now 35 years strong, which was feeling the strain of her cancer, her depression and her life as a doctor-in-training. She knew she had to leave residency — and her dream of practicing medicine — behind.

Turning away from a medical residency might evoke disappointment or disgrace in a trailer human being, but Dr. Liman saw it as an opportunity. If surviving both medical school and cancer treatment gave her anything, it was a heightened sense of empathy for medical students, patients and doctors. She decided to channel that emotion into a new career in academic and student affairs.

For the past few years she has been bringing her medical school education, patient’s perspective and her own unique sensitivity to the work of guiding students through medical school, planning conferences to educate doctors about the importance of cultural sensitivity and, on occasion, teaching Healthcare in the U.S.

A self-described “workaholic” who dislikes downtime, Dr. Liman also uses her boundless energy to volunteer for Amas, a non-profit, multi-ethnic theatrical organization whose mission is to showcase and train artists of all races, religions and ethnic groups. She also dedicates time to people who are struggling with cancer, an illness that continues to haunt her.

As recently as January 1999, Dr. Liman was diagnosed with Stage 3 breast cancer. In typical fashion, she underwent a mastectomy and before starting chemotherapy threw herself a 50th birthday party. “I’m happy I’ve reached this milestone,” she says, smiling. “I consider myself a survivor. If I can be helpful to anyone with what I’ve gone through, then I’m happy to do that.”
ALUMNI FROM THE CLASSES OF 1954 AND 1979
Reminisce at the Waldorf

Time to schmooze is a rarity in the life of most physicians, an uninterrupted evening a mere fantasy. But when it involves hours of reminiscing with old friends and classmates from medical school, then it's an opportunity not to be missed. That was the spirit among alumni who attended their 25th and 50th class reunions at the Waldorf-Astoria Hotel in New York in June.

Banquet rooms with luscious buffets echoed with laughter and surprise as alumni from the classes of 1979 and 1959 arrived. Everyone searched for familiar faces. There were hugs and kisses and conversations that ran the gamut, from who got married to who went into solo practice to who was trying to get out from under managed care.

"Some people you recognize even after 50 years," said Gabriel P. Gregoratos, M.D. '54, a cardiologist and professor of medicine at the University of California, San Francisco. Some, like Albert J. Kellert, M.D. '54, a retired dermatologist from Hollywood, Fla., didn't recognize anyone. "I don't know anybody here," said Dr. Kellert, who retired in 1996. But he really didn't mind, since coming to New York gives him a chance to catch up on theater.

Irvig Katz, M.D. '54, didn't have to travel far to attend the reunion; he moved to New York from Phoenix after his wife died. "There are a lot of things for a widowed individual to do," said Dr. Katz, who retired from ophthalmology in 1985. Herve M. Byron, M.D. '54, also a retired ophthalmologist, said he is not even close to retiring. "Let's retire the word 'retire,'" said Dr. Byron, who teaches and consults on instrumentation for refractive surgical products for corneal disease. "I'm flunking retirement."

Retirement is the last thing on Dr. Ronald Brown, Sr.'s mind. The gastroenterologist from Augusta, Ga., and alum from the Class of 1979 is more concerned about how to cope with managed care while seeing two sons through medical school and a third through...
Gabriel P. Gregoratos, M.D. '54, and his wife Eva were enjoying themselves at the reunion.

Immediate Past President of the Alumni Association, Louis E. Fierro, M.D. '60, left, and the new president, Christopher F.X. Riegler, M.D. '88, awarded the Alumni Endowed Scholarship to Anne Kim, M.D. '04, M.PH. '04. Dr. Kim, ranked second in the class, is an accomplished pianist who served in the Student Senate throughout medical school. She is now in a general surgery residency at the University of California, Davis.

dental school. "I want them to see what happens when they apply themselves," he said, smiling at Ronald, 21, Marcus, 20, and Joshua, 13. The three young men, along with his wife Mary, joined him at the reunion. "Medicine is still a good job and still in demand as long as people are living with disease," Dr. Brown said. "You'll always have rewards because you'll have the satisfaction of helping people." But Mary, who is her husband's practice manager, bemoaned the frustration of managed care. "I wish managed care would go away so we could go back to treating patients," she said.

While no one escapes the grip of managed care, Moira Shea, M.D. '79, a pediatrician, and husband William J. Wittman, M.D. '79, an internist, have successfully removed themselves from big city medicine by living and practicing in Falmouth, Mass. They like the familiarity and comfort of being in a small town, even though people often stop them in the supermarket for free medical advice. "You're known in town," Dr. Wittman explained. "You give lots of free consults." Giving free medical advice is worth the reward of living a slower, quieter life, Drs. Shea and Wittman agreed. In return, patients may give them homemade cakes or cookies, although they've been known to express their gratitude in more unusual ways, said Dr. Wittman. "I treat a local fisherman," he says, "who leaves fresh fish on my doorstep."
Corny as it may sound, Michael Alekshun's career as a research scientist began with a childhood chemistry set. “I used to make pretty-colored solutions and experiments in the kitchen mixing things together,” says Dr. Alekshun, who knew there and then that he wanted to be a scientist. He has followed his passion for science like a compass, from his childhood kitchen in Waterbury, Conn., to his current post at Paratek Pharmaceuticals in Boston. Today that passion is leading him in two distinct directions, researching treatments for commonly recurring infections and for bioterrorist attacks. For Dr. Alekshun, who has been studying antibiotic resistance and bacterial virulence since earning his Ph.D. from the New York Medical College Department of Microbiology and Immunology in 1996, the research is surprisingly related.

Dr. Alekshun has always been fascinated with biology, particularly with the way bacteria interact and adapt with the environment. After receiving his undergraduate degree in biochemistry from Pace University in Pleasantville, N.Y., he embarked on what he calls “the opportunity of a lifetime,” particularly since Ira Schwartz, Ph.D., professor and department chair, was his advisor. “They don’t accept everyone into these programs,” he advises. “Dr. Schwartz had the confidence in me to say, let’s give this guy a shot.”

Dr. Schwartz put him to work trying to find out why the spirochete that causes Lyme disease is naturally resistant to the antibiotic rifampin. The study ignited the younger man's interest in antibiotic resistance and bacterial virulence, which lead him to his next great opportunity: a post-doctoral program at Tufts University in Boston.

There Dr. Alekshun began exploring how bacteria infect their hosts and survive, despite the presence of antibiotics. Under the tutelage of Stuart Levy, Ph.D., professor of molecular biology and microbiology, he tried to identify the mechanism that makes bacteria resistant to not one but many antibiotics, causing what is known as multiple antibiotic resistance or the MAR phenomenon.

The work was so fascinating that he readily accepted an invitation from Dr. Levy and Walter Gilbert, Ph.D., to join Paratek Pharmaceuticals, the company they co-founded in 1996 to develop new therapeutics against antibiotic resistance. In 2003, after only four years as a staff scientist, Dr. Alekshun became the company's director of anti-infective drug discovery.

Now Dr. Alekshun is researching ways to prevent bacteria from infecting their hosts. He emphasizes that the research is not meant to prevent bacteria from growing but, instead, to “turn off” the mechanism that allows bacteria to infect their host in the first place. The goal is to develop therapies that will treat and, ideally, prevent common and recurring infections.

The research has profound implications for public health, Dr. Alekshun asserts. It may lead to remedies or prophylactic treatments that would halt devastating epidemics of infectious diseases such as cholera, E. coli or salmonella. It may lead to preventive treatments for other commonly recurring conditions, including urinary tract infections, ventilator-associated pneumonia and traveler’s diarrhea. Additionally, it may reduce human vulnerability to bioterrorist attacks, since most of the bacterial agents that might be used in warfare are treatable with current antibiotics and, thus potentially prey to developing resistance. Dr. Alekshun has funding from the NIH to research prophylactic therapies to thwart a bioterrorist attack. He also belongs to a study section of The Project BioShield Act of 2004, which is federally authorized to research and develop agents that treat or prevent harm caused by a biological, chemical, radiological or nuclear attack.

Dr. Alekshun points out that the widespread over-prescribed use of antibiotics has contributed to multiple antibiotic resistance, making his research timely and important. He is sympathetic to doctors often feeling pressured—especially by worried parents—to prescribe antibiotics too easily. As the father of two-year-old Sofia, he understands their concern. “If you leave a doctor’s office without getting a drug for your kid you feel cheated,” he says.

But as a scientist, he is also concerned about the resulting healthcare crisis, which Paratek addresses on its website. The company cites CDC data indicating a “58 percent increase in U.S. per capita mortality from infectious diseases between 1980 and 1992,” due to the “emergence and re-emergence of infectious disease organisms.” As a result, according to the CDC, infection is now the third leading cause of death in the nation, behind heart disease and cancer. Antibiotic resistant infections have reached crisis levels in many hospitals, with some types of bacteria, such as Methicillin-resistant Staphylococcus aureum, resistant to nearly all antibiotics, Paratek explains. Last year the FDA responded to the situation by requiring antibiotics to have labels warning that misuse can lead to resistance.

With potential solutions for multiple antibiotic resistance still in the laboratory, Dr. Alekshun has his work cut out for him. That suits him fine, because it keeps him engrossed in his job. He hopes his daughter is as fortunate as he’s been, finding a vocation that she loves. Says Dr. Alekshun, “I wouldn’t be disappointed if she became a scientist too.” ♦
A Determined SON Makes His FATHER Proud

JARED SCHULMAN, M.D. '04, M.P.H. '04, AND MELVIN SCHULMAN, M.D. '65

True or False: Any parent would be thrilled to have a child go to medical school.

Anyone who answered "true" hasn't talked to Melvin Schulman, M.D. '65, whose son, Jared, earned both his medical and public health degrees last spring. "I told him not to do it," Dr. Schulman says, matter of fact. "I'll give you a couple hundred thousand dollars to start a business."

Dr. Schulman, a retired ophthalmologist with a biting sense of humor, isn't joking. He's proud of his son, a first-year orthopaedic resident at the University of Medicine and Dentistry of New Jersey in New Brunswick. But he wanted Jared to choose a career where the poor. And the one for the wealthy and one for the insurance companies.

Shrinking income is only one piece of Dr. Schulman's discontent. He is also upset by the growing gap between those who can and cannot afford medical care. "We have evolved from the most wonderful form of medicine in the world into a second class medical system," he says. "There are going to be two standards of medical care—one for the wealthy and one for the poor. And the one for the poor isn't going to be pretty."

None of Dr. Schulman's arguments could discourage Jared from wanting to be a doctor ...

chose retirement. "I miss being a physician, doing surgery, seeing many of my old patients," he says. But, he adds, "I don't miss fighting with the insurance companies."

Whether or not Jared joins that fight, he is happy with the career he has chosen. And his dad is grateful that his son is happy. "When he was in medical school he said, 'Dad, I love it, I love it,'" Dr. Schulman offers. "I'm very proud of him."
DENISE FINK, M.P.H. '04 AND GARY FINK, M.D. '79:

SHARING A LIFE and a Stage

Denise Fink, M.P.H. '04 and Gary Fink, M.D. '79, share a home, three children, some work history and an alma mater. They met in 1980 at the University of Medicine and Dentistry of New Jersey, where she was working as an emergency room nurse and he was in his third year of an orthopaedic residency. Last spring, they celebrated Denise's graduation from the School of Public Health and the 25th anniversary of Gary's graduation from New York Medical College.

"It was such a happy coincidence," Denise says. "Here I was graduating while Gary was celebrating his 25th reunion. We had to buy the kids New York Medical College sweatshirts."

Denise didn't realize when she began the public health program that she'd be graduating the same time as Gary's 25th reunion. At the time she was too worried that being a 43-year-old mother of three who had been out of the work force for 12 years—except for working as a summer camp nurse—would hamper her ability to handle graduate school and returning to work full time. "You always start out with, can I really do this?" she says, recalling her fear of starting work and school simultaneously. "If I'd had any brains I would have done one at a time, but I had no idea what I was looking for."

She did know that she was more attracted to the administrative than the clinical side of health care. She also knew that she wanted to focus her work and her academic life on health policy and management. As a first step she called Vassar Brothers Medical Center in Poughkeepsie, N.Y. to inquire about a job. "It was one of the most difficult phone calls I had to make because I really didn't think I was qualified to do anything anymore," she says.

In 1999, just as her eldest daughter Emily was applying to college, Denise accepted a position as a full-time case coordinator and matriculated in the health policy and management program, which she completed in four years. "There was such a great dovetail between what I was learning at school and the work I was doing," says Denise, who became manager of regulatory compliance two years later. Last year she became director of regulatory compliance, a promotion she attributes to her M.P.H.

She says studying for the M.P.H. degree was exciting but challenging and credits her three daughters, Emily, 21, a senior at the University of Vermont; Lauren, 19, a sophomore at the University of Rhode Island; and Kara, 17, a junior at the Oakwood Friends School in Poughkeepsie, for helping her through. "I'd have my books on the table and they'd say, 'Mom's talking to herself again,'" she says, chuckling. "Kara would help me with algebra. Then I'd call Emily, the economics major and bounce health economics issues off her. Lauren was my psychological support." The greatest help came from her husband. "Gary was the one all along who told me I could do it when I didn't think I could," Denise says.

"She is an incredibly creative, bright and gifted woman who is wonderful at what she does," says Dr. Fink, a managing partner in a 15-doctor orthopaedic practice in Dutchess County, N.Y. "I was proud of her for moving into the unknown." The "unknown" is now a multifaceted job, which involves overseeing quality assurance for the medicine, emergency, radiology and oncology departments and making sure the hospital is in compliance with Joint Commission on Accreditation of Healthcare Organizations standards, which include national safety goals. "I really enjoy looking at processes and figuring out how to make them better," Denise says. "I feel I'm doing something significant if I can put a process in place that prevents an error."

To that end, Denise has implemented "time out" procedures for operating room personnel so they can verify that surgeons are operating on the correct patients for the right reasons. She has established procedures that allow nurses to assess certain criteria in patients and administer vaccines without a doctor's order. She has also applied MRI safety regulations, which mandate that rooms containing MRI machines be free of jewelry, implantable devices, metal shavings or any other magnetic materials that could be propelled by the machines' powerful magnetic force and cause injury.

These days Denise—a woman who once questioned whether she was capable of handling a full-time job, let alone graduate school—is preparing to take the National Association for Healthcare Quality certifying exam. Despite her increased confidence, however, she still battles occasional self-doubt, as she did on her graduation day last year, which she wanted to skip altogether. "I was sure I'd be the oldest person there, way too old to be in a cap and gown," she says. But her husband insisted that she go: for their daughters and for herself. Dr. Fink reflects: "I remember going across that stage at my graduation. It was great seeing my wife go across the same stage 25 years later."
Medal of Honor Winners Bemoan Managed Care
But Laud Their Profession
(continued from page 25)
Heritage Center, which he founded in 1997.
Despite the many changes that medicine has endured since his graduation in 1954, he expressed excitement for the newest graduating class. "To the class of 2004, I salute you. You are entering medicine at the most incredible time to be a physician. You have an excellent opportunity that will exist before you for the rest of your careers."

Dr. Fierro, the third honoree and immediate past president of the Alumni Association, expressed similar optimism. A highly respected anesthesiologist, Dr. Fierro was director of the department of anesthesiology at Lenox Hill Hospital until his retirement in 1999. Although retired from clinical practice, he remains the department's honorary director and an active member of the College faculty, which he joined soon after graduating more than 40 years ago.

An associate clinical professor in anesthesiology, he has served on many of the College's committees, including Tenure, Admissions, and Promotions (TAP), and Executive of the Faculty Senate and By-Laws. He was president of the Alumni Association from 1989 to 1993 and again from 1999 to 2004. He has been a member of the Board of Governors of the Alumni Association since 1968 and the Board of Trustees since 2001.

Like his co-honorees, Dr. Fierro acknowledged the frustrations that managed care has brought to medicine. And yet, he added, "I enjoy it every moment."
TWO TECHNOPIHELLES

Talk About Radiology

Two sides of medicine impressed Justin Mackey, M.D. ’04, growing up: the people side and the technology side. And two physicians, one who worked with people and another who worked with machines, impressed him also. His grandfather, Eduardo Juliet, M.D., the people doctor, is an internist. His father, Robert Mackey, M.D. ’77, is a radiologist. And Justin is a radiology intern at Greenwich Hospital in Connecticut, inspired by both.

“My dad loves knowledge and my grandfather loved patients,” Justin says of his grandfather, who retired eight years ago at 87. Dr. Mackey chimes in: “My father-in-law loved sitting around talking to patients, taking a careful history, figuring out problems without tests. I love using technology to solve problems and coming to a diagnosis by looking through a series of tests.”

Dr. Mackey says his father-in-law sparked Justin’s interest in medicine. “His office was in the basement of his home and Justin used to love to play there,” he recalls. “He’d take Justin along on patient visits and let him listen through his stethoscope.”

But Justin’s grandfather wasn’t the only influence in his decision to pursue a medical career. “My son remembers the two of us looking over x-rays by a lamp,” says Dr. Mackey, who works with a 20-member radiology group in New City, N.Y. He is also affiliated with Nyack Hospital and has an office in Yonkers. “When your children are young like that you’re not always aware of what they’re taking in,” he adds. Clearly, Justin wasn’t missing a thing. He was especially impressed with the diagnostic power of radiology. “I could tell my father-in-law things about patients without actually seeing them,” Dr. Mackey says. “That really impressed my son.”

Justin admits that something other than his fascination with technology drew him to radiology: the hope of having as normal a life as possible. Married last June to Jacqueline Bassett Mackey, a fourth-year student at the College, Justin wants to have the kind of reliable schedule he remembers from his childhood. “My dad was always home by 5:30 or 6,” he explains. “He wasn’t one of those doctors who was never home. That would have dissuaded me from going into medicine.”

Having regular hours will become increasingly important once Jacqueline begins practicing medicine, Justin says. He will begin a radiology residency at North Shore University Hospital on Long Island next year and says he plans on commuting once he and Jacqueline move to Manhattan.

There’s a good chance, however, that his evenings won’t be as free as he imagines. According to Dr. Mackey, radiologists get night calls more often than they did when he started out. In fact, doctors commonly transmit ultrasound, MRIs, and CT scans directly to his home computer. “The evenings are fairly busy,” he warns. Still, he loves his work, hectic nights notwithstanding. “I cannot imagine myself having done anything else and being as happy,” Dr. Mackey says. “Frankly, I can’t see Justin doing anything else either.”

Robert Mackey, M.D. ’77, celebrated Commencement with his son, Justin Mackey, M.D. ’04, and Justin’s wife, Jacqueline Bassett Mackey.
Bill Rothman, M.D., '64, has retired from internal medicine and is living in Belvedere, Calif. Dr. Rothman is a widower and has one daughter.

Richard Allen, M.D., '65, is assistant dean for graduate medical education at Oregon Health Sciences University in Portland. Dr. Allen has been appointed to the Liaison Council for Medical Education, which accredits all medical schools in the United States.

Jack C. Lee, M.D., '65, has retired after 30 years of practicing general thoracic surgery. Dr. Lee has moved from Massachusetts to Missouri City, Texas.

Michael R. Tesory, M.D., '67, is an obstetrician/gynecologist, is on staff at the Nashoba Valley Medical Center in Ayer, Mass. Dr. Tesory, who specializes in infertility, menopausal and peri-menopausal conditions and hormone replacement therapies, chairs the American College of Obstetrics and Gynecology for New England and Quebec and is a fellow in the American College of Obstetrics and the American College of Surgeons.

Stephanie Roze, M.D., '68, is practicing pediatrics in Brooklyn, N.Y.

The Fifties

Harry J. Bunke, M.D., '51, director of the Ralph K. Davies Medical Center Division of Microsurgical Replantation in San Francisco, was recently honored with the 2004 American College of Surgeons Jacobson Innovation Award. The award honors living surgeons who have been innovators in any field of surgery. (See story on page 20)

Ben S. Cateninichio, M.D., '58, a pediatrician with the Mount Kisco Medical Group in Mount Kisco, N.Y., recently retired after nearly 40 years of practicing medicine.

Howard Kline, M.D., '58, is still enjoying practicing and teaching cardiology in San Francisco. Dr. Kline is also swimming competitively for the University of San Francisco masters swim team.

George P. Lewis, M.D., '59, is retired and living in Middletown, R.I. Dr. Lewis has six children and 14 grandchildren, and has taken up flying.

Roland K. Molinet, M.D., '59, an internal medicine physician, is practicing medicine and living in Fort Lauderdale, Fla. Dr. Molinet is a clinical assistant professor at Nova Southeastern University and the University of Florida.

The Forties

Cyrill Halkin, M.D., '45, former past president of the Alumni Association, reported the death of her husband, Ralph Schwartz, M.D.

In Memoriam

Edward Francis Rohmer, M.D. '37, died October 25, 2004. He was 95.
Esther R. Aronson, M.D. '38, died August 31, 2004. She was 89.
Ivan D. King, Jr., M.D. '47, died October 29, 2004.
Elizabeth Barbara Birge, M.D. '57, died July 12, 2004. She was 73.

Mary Hawkins McKeel, M.D. '75, died November 30, 2004. She was 54.
Sherry F. Stanton '75, died December 29, 2004.
Bruce Zakheim, '77, died December 27, 2004.
Clifton R. Pearce, M.D. '81, died April 12, 2001.
Gregory J. Gurtner, M.D. '94, died August 11, 2004. He was 36.
Eric C. Daub, M.D. '95, died April 6, 2004 in Lincoln, Maine. He was 37.

Faculty

Alfred W. Murphy, M.D., clinical associate professor of psychiatry, died November 28, 2004. He was 83. Dr. Murphy was medical director of the Peekskill Mental Health Center and worked as a physician in Haiti. He also served as a Diocesan and was later a Dominican medical missionary in Pakistan. A member and past president of the Catholic Physicians Guild of New York, Dr. Murphy led the effort to admit the International Catholic Physicians into the United Nations as a non-governmental organization.


John Rossi, M.D., clinical assistant professor of obstetrics and gynecology, died October 4, 2004. He was 79. Dr. Rossi was director of obstetrics and gynecology at Saint Agnes Hospital in White Plains, N.Y. for 17 years. He was also on staff at United Hospital in Port Chester, N.Y. and at White Plains Hospital.

Calendar of Events

May 21, 2005
Reunion Alumni Banquet

May 22, 2005
Reunion Weekend Alumni Luncheon

May 23, 2005
146th Commencement

July 11, 2005
Alumni Association Golf Outing Rockland Country Club

For additional information, please call the Alumni Office at (914) 594-4556.