Fall 2003

Chironian Fall/Winter 2003

New York Medical College

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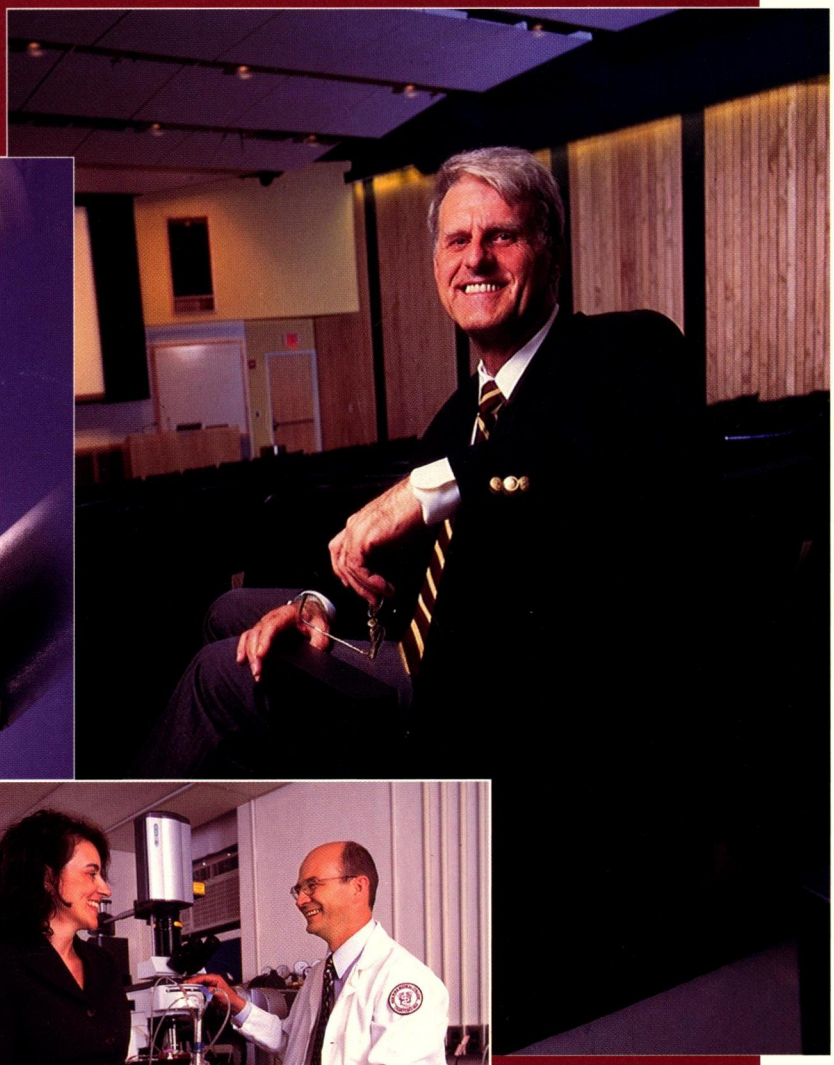

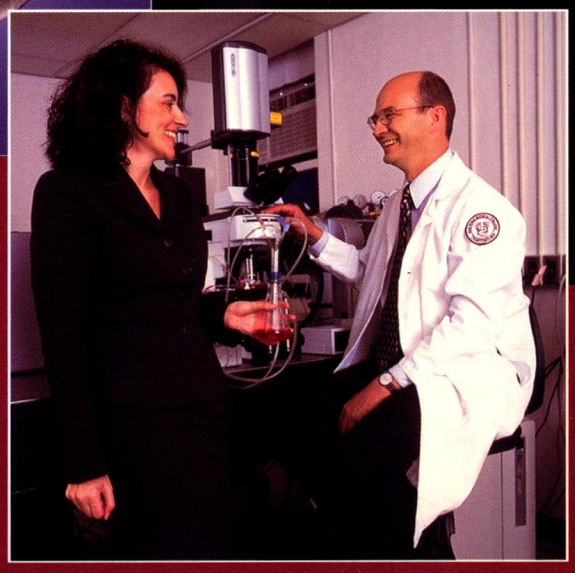

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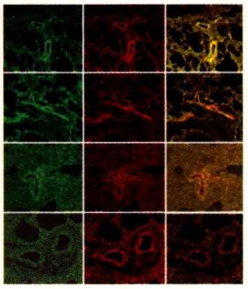
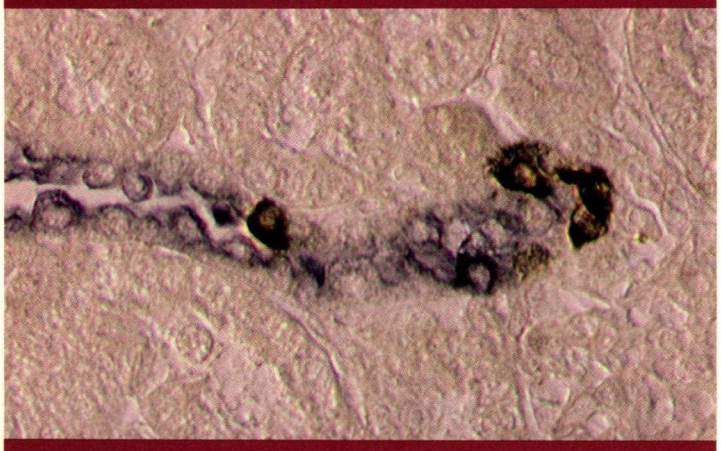
INSIDE

Pharmacologist MAKES UNEXPECTED CONNECTIONS WITH COX-2 INHIBITORS



HYPERTENSION IS DEADLY FROM ANY VIEWPOINT

TNF-alpha and IL-6 are inflammatory cytokines, proteins initially studied for their significant roles in immunological and inflammatory events. In this issue we report on research by a pharmacologist (this page) and a cell biologist (see page 7) that shows how these molecules may be involved in essential and pulmonary hypertension. Though their scientific methods differ, the investigators share the same goal: to determine exactly what causes different kinds of hypertension.



This photograph using DIC Nomarsky microscopy demonstrates Dr. Ferreri's finding that all TAL cells in the kidney are not the same. COX-2 protein is expressed only in a subset of TAL cells (dark brown), while neighboring TAL cells (blue) do not express the protein. These distinct populations of cells may have different functions regarding the control of salt balance in the body.

— PHOTO COURTESY OF CARLOS VIO, M.D.

Nicholas Ferreri, Ph.D. '84, is researching how cytokines such as tumor necrosis factor-alpha contribute to cellular mechanisms related to hypertension.

By Dan Hurley

Nicholas R. Ferreri, Ph.D. '84, thrives on making unexpected connections—between cells involved in the development of hypertension, between seemingly unrelated fields of research, and between himself and a diverse range of colleagues. In fact, the professor of pharmacology insists he'd be nowhere without the close connections he began making more than two decades ago as a graduate student at New York Medical College.

"Whatever success I've had is due to a lot of other people," he says.

There's been more than a little success for Dr. Ferreri of late, including a recent Fogarty Grant from the National Institutes of Health permitting him to delve deeper into an unlikely connection he and colleagues first glimpsed years ago between hypertension and the COX-2 molecule typically associated with painful inflammation.

"One of the important things about our research is showing that COX-2, while important in inflammation, also has a function in normal body mechanisms, including the kidney's regulation of blood pressure," he explains. "So we say, wait a minute guys, when you inhibit COX-2 for pain relief, you will alter kidney function in a way that could cause problems for certain people."

Although his studies could eventually lead to the development of new medications for managing hypertension,

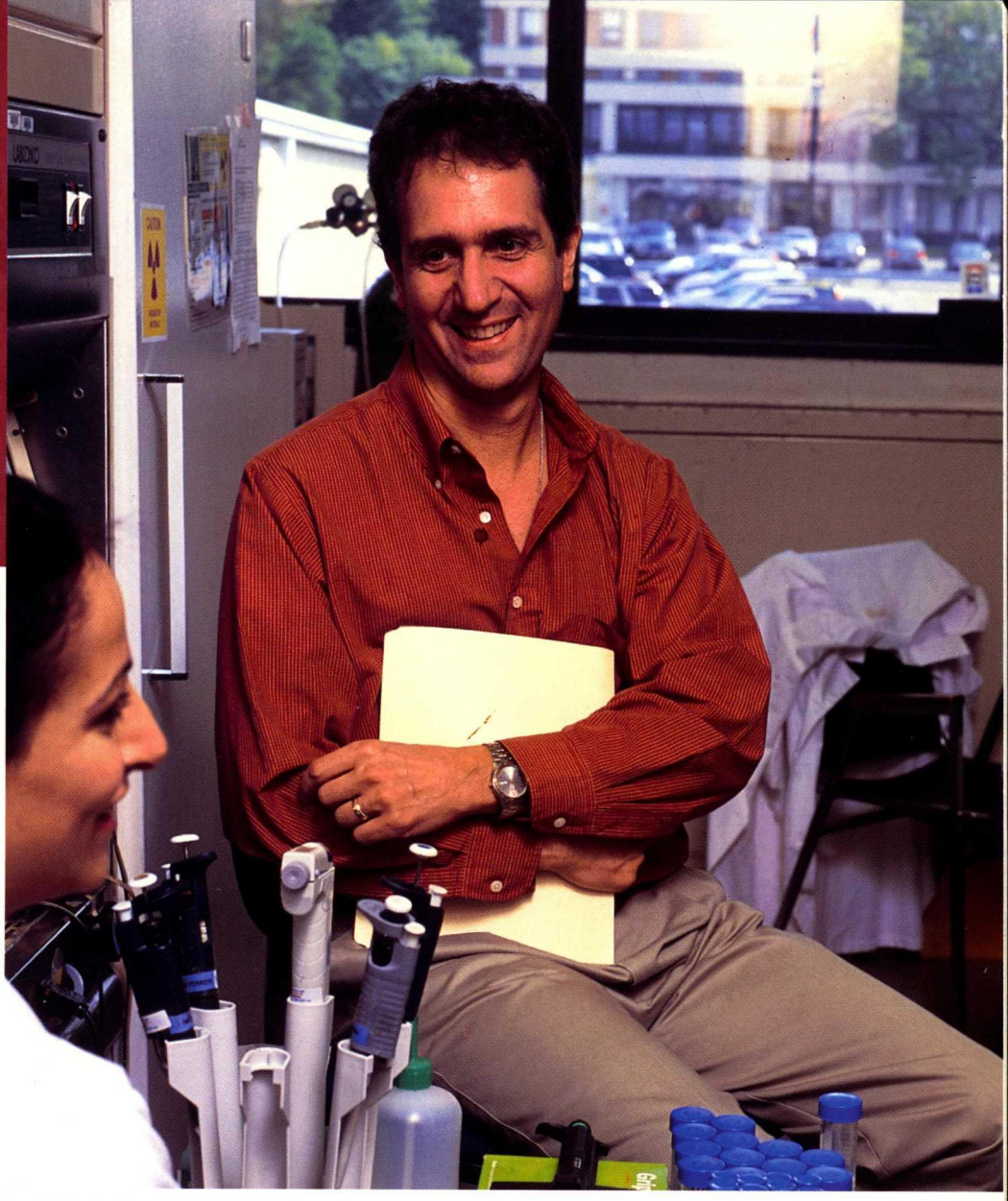
the long road to this insight began when Dr. Ferreri arrived for his first stint at the College in 1978—that time as a graduate student. His mentor was the newly appointed chair of the Department of Pharmacology, John C. McGiff, M.D.

Key colleagues

"Even then he was totally supportive," says Dr. Ferreri. "He's always cleared the way for me to do things. Dr. McGiff is someone I just truly admire. He's a powerhouse." Dr. McGiff is equally effusive about his one-time student, now colleague and friend. "From day one," Dr. McGiff says, "it was evident that Nick Ferreri would be one of the commanding presences in his field. He took the long view and never used shortcuts. Without Nick Ferreri, many of the studies in this department would never have been initiated. And beyond his scientific capability, he's a splendid human being who handles all sorts of graduate students with ease and concern."

Dr. Ferreri credits Dr. McGiff with making connections for him with three key colleagues. The first, Michal L. Schwartzman, Ph.D., now a professor of pharmacology, was then a visiting fellow from Israel seeking to understand how arachidonic acid metabolites regulate kidney function.

Dr. Ferreri began writing on a chalkboard to patiently explain it all to a visitor who doesn't know his arachidonic acid from his elbow. "Dr. McGiff did kidney research on molecules called prostaglandins," he says. "We wanted to look at how prostaglandins, metabolites of arachidonic acid, a 20-carbon fatty acid, affected ion transport in the kidney. COX is the enzyme that takes arachidonic acid and makes prostaglandins. Miki Schwartzman had done research in Israel on prostaglandins."



ABOVE: Dr. Ferreri discusses the schedule for the day with Huda Abdullah, a Ph.D. candidate in his laboratory. The amiable full professor has had two turns in the Department of Pharmacology—as a graduate student and, seven years later, a faculty member.

What they discovered was a huge surprise. "Instead of finding prostaglandins," he says, "we found a new pathway for arachidonic acid metabolism via an enzyme called cytochrome p450. That was pretty much my thesis." The discovery, as reported in major journals in the early 1980s by Drs. Ferreri, Schwartzman, McGiff and others, brought national attention to the College.

Moves on

Dr. Ferreri moved on to post-doctoral study—first at the Scripps Clinic in California, then at Yale—in the seemingly unrelated field of immunology. "I wanted a whole other field under my belt," he says. "I just felt that science is so multidisciplinary. We tend to think of it simplistically, as such a linear thing. I thought, this is the last chance I'll have to add a big field to my repertoire. And I have to say it was Dr. McGiff who helped it pay off."

It wasn't long before Dr. Ferreri was making unexpected connections between immunology, hypertension and the kidney. Seven years after he had left, Dr. McGiff wooed him back to the

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Chironian
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Editor:
Marjorie Roberts
Director of Public Relations
E-mail: marjorie_roberts@nymc.edu

Alumni Liaison:
Andrea Kott
E-mail: chironian@nymc.edu

Rev. Msgr. Harry C. Barrett, D.Min., M.P.H.
President and Chief Executive Officer

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Philip Jensen-Carter

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LEGACY OF A LEADER 1932 – 2003

SHEILA M. SMYTHE
Executive Vice President and Dean, School of Public Health

By Ellen F. Carr

When she died on November 4th, suddenly and tragically of a heart attack, it was as if the entire campus had died in silent tribute. Shock, disbelief and incredible sadness registered in corridors and classrooms. Within hours, many who felt the loss of Sheila M. Smythe in a deeply personal way would attend a memorial Mass celebrated by Msgr. Barrett, university president.

The executive vice president and School of Public Health dean's day had begun routinely and early, as was her custom, and at full, vigorous throttle. Hastily crafted notes were posted to staff in advance of a scheduled meeting she would never attend. Within the space of a few hours, one of New York Medical College's most extraordinary leaders would leave her legacy.

What can be said that does not somehow diminish the breadth and depth of Sheila Smythe? She was, in a word, remarkable. Upon meeting her, a tall, imposing figure with ever-present dignity, one measured substance. She was a consummate professional, keenly intelligent, dynamic, focused and incredibly knowledgeable about public health issues. And while she would not suffer fools easily, she was not one to self-aggrandize either. She inspired people and had integrity. Among her faults, well, she frequently took on challenges that no reasonable person would be expected to accomplish in half the time, leaving loyal faculty to work warp speed to honor her commitments. Dean Smythe lived an exemplary life, one dedicated to the School of Public Health particularly, and to public health and education generally. Her friendship, whether it be professional or personal, was real and meaningful.

Born the only child of Irish immigrant parents, equipped with degrees from Creighton University, Manhattanville College and Columbia University, Sheila Smythe rose through the ranks of corporate America and while doing so, became a national resource in public health policy. Before joining the College in 1990, she was chief health policy advisor for the U.S. General Accounting Office in Washington, D.C.; previously, she was president and chief operating officer of Empire Blue Cross/Blue Shield.

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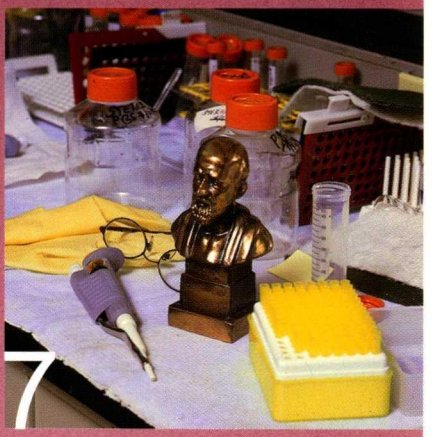

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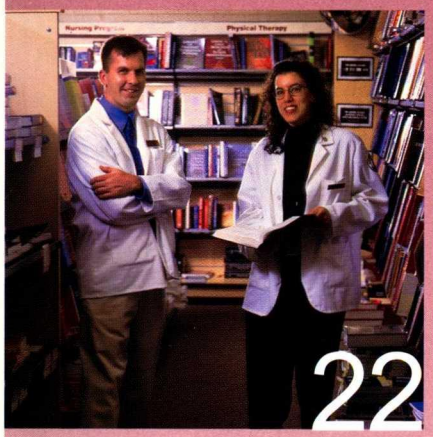

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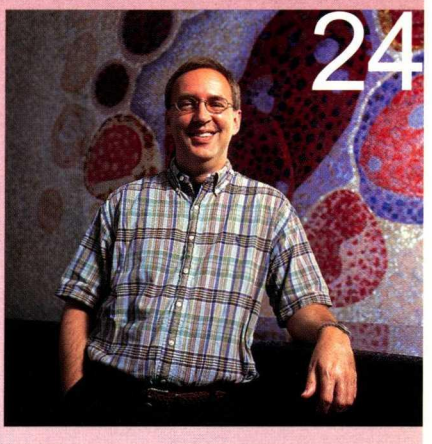


On the Cover:

Urologists are among the surgical specialists who use robots in their practice. Alum Gerald Matthews, M.D. '86, has used the da Vinci robot shown here to help restore male fertility. It is mainly used now for suturing inside the body in a variety of surgical situations. (PHOTO COURTESY OF DA VINCI SURGICAL SYSTEM)

Reinhard E. Zachrau, M.D., is professor of pathology, but that's the least of his challenges. He is charged with scheduling every second-year student not only for his course, Pathology/Pathophysiology, but also for every course taken that year. Students consistently rate his "path" course best and vote him one of their best teachers.

Supervising the Cardiovascular Research Institute's laboratories of Piero Anversa, M.D., are Annarosa Leri, M.D., and Jan Kajstura, Ph.D. They use the multi-focal microscope for experiments in the living heart, where the scientists are looking for movement of stem cells away from the site of storage to the area of injury.

PHARMACOLOGIST

(continued from page 3)

College and onto the faculty. The goal was to apply his knowledge of cytokines—molecules that play a key role in host defense and touching off inflammation—to unraveling their function in the kidney.

ABOVE: Introducing the laboratory team of Nicholas Ferreri, Ph.D., Department of Pharmacology, from left: Paulina Pedraza, technician; Dr. Ferreri, professor; Wilson Young, M.D., Ph.D. candidate; Irene Lee, technician; and Huda Abdullah, Ph.D. candidate.

"I came back to study cytokines and how they regulate COX-2 in the kidney," he says. That's when Dr. McGiff introduced him to the man he calls the second key person in his career: Bruno Escalante, M.D., Ph.D., then a faculty member who has since returned to his native Mexico. He had been participating in the department's research on cytochrome p450 when Dr. Ferreri suggested they investigate whether COX-2 is made by certain cells in the kidney with a rather peculiar name: thick ascending limb (TAL) cells.

"This was back in the early 1990s, when the COX-2 story was developing, mostly as it affects inflammation," recalls Dr. Ferreri. "I started asking if there could be some of these molecules in the kidney. No one had looked yet. We looked and found that under certain conditions, the gene for COX-2 can be turned on in the TAL cells."

TNF and COX-2

The cytokine that stimulated the production of COX-2, Dr. Ferreri found, was tumor necrosis factor-alpha (TNF). "COX-2 in the kidney is normally expressed at very low levels, and only under certain conditions do you get more of it. One of the ways is with TNF. This is when Dr. McGiff put me in touch with the third key person in my career, with whom I currently work on this project: Carlos Vio, M.D., of the Catholic University in Santiago, Chile. We were working on the same thing but have different kinds of expertise. Carlos is an expert in immunohistochemistry and I look at individual cells." The individual cell is indeed Dr. Ferreri's passion. "Even when I was an undergraduate at Case Western Reserve, I always had a fascination for working with individual cells," he says. "I had a natural inclination for that. It's like why you prefer jazz or classical music. I could always think better in terms of cellular mechanisms—which is what made for such a beautiful relationship between Dr. McGiff and me. He was more of a whole-organ researcher. I thought you had a better chance if you picked a cell you knew was a potential target for a drug or a function, and then tease out what was happening in that cell."

Gazing into the distance, seemingly straight through the chalkboard, Dr. Ferreri waxes philosophical about the cell. "It is the center of the universe, in terms of what makes the whole organism work," he muses. "These little guys have to communicate with each other to make this whole human being that does all the crazy things we do."

Complicated TAL cells

The more Dr. Ferreri talks about those "little guys," the more he sounds as if he's talking about tiny little people. The idea doesn't faze him. "Well, I think...they're not as diverse as people with personalities, but they're not all the same either. The more you get to know them, the more complicated they are. We found that out about the TAL cells. I think that's also true about smooth muscle cells," he says.

Dr. Ferreri's latest grant concerns how COX-2 and TNF regulate the growth of smooth muscle cells in blood vessels, which often become abnormal in people with hypertension. "Same molecule, different cell types, different organs, different functions. That's what makes this whole field of cytokine biology so confusing"—and, one suspects, so fascinating to him.

"It's almost a shame to call this work," he admits. "It's just waking up and doing what I do. That's the environment Dr. McGiff creates, by being so supportive and bringing in people who can help each other." Few have helped Dr. Ferreri more than a medical photographer named Nancy who was working for Dr. McGiff back in the early 1980s. He and Nancy got married and now live in Connecticut with their two children ("my treasures"), Nicholas, 13, and Nina, 6.

Better make that *four* key people Dr. McGiff has introduced him to.

Cell Biology's REBEL WITH A CAUSE

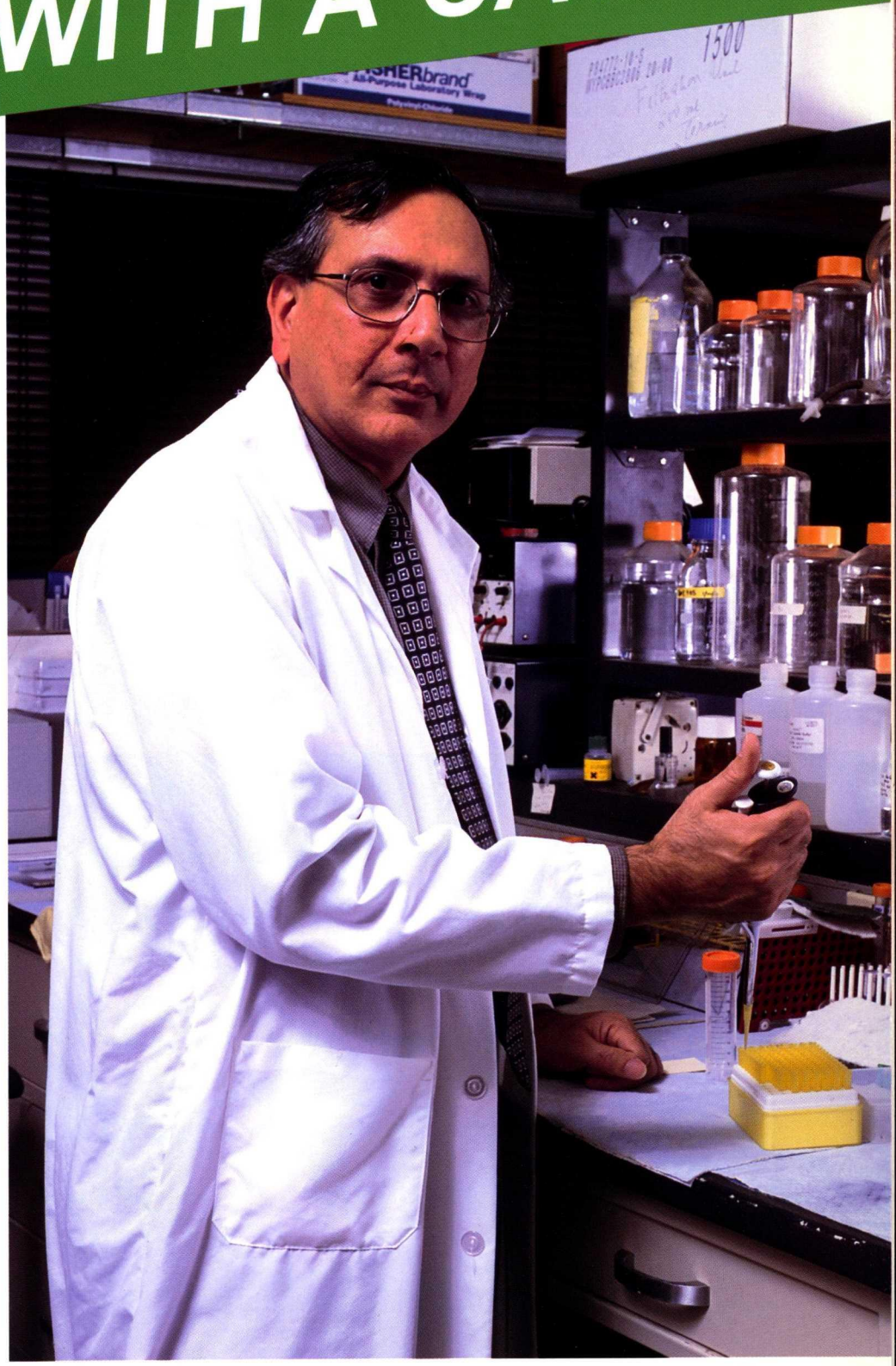
Pravin Sehgal, M.D., Ph.D., runs roughshod over dogma to track down the true nature of interleukin-6.

By Dan Hurley

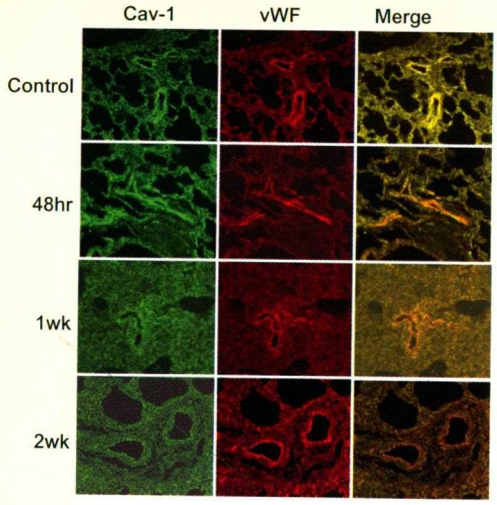
He doesn't wear a leather jacket, sport a Mohawk haircut, or ride a motorcycle. But Pravin B. Sehgal, M.D., Ph.D., does savor his role as a scientific rebel in pursuit of fundamental discoveries on the body's all-purpose alarm signal: interleukin-6.

"I am unapologetic about it," says the immunologist and molecular biologist holding dual appointments of professor in the departments of Cell Biology and Anatomy, and Medicine, at New York Medical College. "You have to have the nonconformist streak. You have to stick to your guns. Otherwise, forget it, you're not going to get up in the morning and contradict the established dogma. You have to be rebellious."

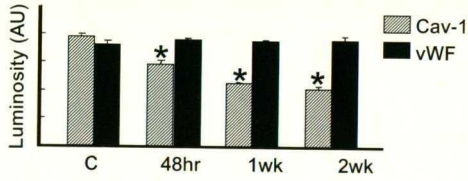
With a patent application pending before the U. S. Patent Office for what is known today as interleukin-6, or IL-6; the National Institutes of Health awarding him and colleagues at the College a $1.7 million grant to investigate IL-6's link to pulmonary hypertension; two previous books on IL-6 that were published by the New York Academy of Sciences in 1989 and 1995, and another 750-page book on transcription factors activated by IL-6, edited by Dr. Sehgal, due to be published in December 2003,



ABOVE: Pravin Sehgal, M.D., Ph.D., professor of cell biology and anatomy and of medicine, is co-discoverer of interleukin 6 or IL-6. He says the protein is the body's alarm signal that something is wrong—infection, neoplasia, injury or disease processes, and has an NIH grant to explore the link between IL-6 and pulmonary hypertension.



THE SEHGAL VOCABULARY: IL-6, MONOCROTALINE AND CAVEOLIN



Immunofluorescence images show the rapid and sustained loss of caveolin-1 scaffolding (bright green) from endothelial cell layers of pulmonary arteries in lungs of rats treated with monocrotaline. This chemical, derived from plants, can generate pulmonary hypertension in the laboratory. The red-stained cells mark the endothelial cells that remain intact throughout. The merged images at right appear yellow at first, but become increasingly redder as the green-stained caveolin is lost. The deficiency of caveolin leads to hyperactivation of an IL-6 transcription factor (STAT 3) that causes cell proliferation and occlusion of pulmonary arteries, i.e., pulmonary hypertension.

the rebel's views appear now to be mainstream. But the true story of uncovering the identity of IL-6, he insists, goes back just a smidge farther than the 30 years he's spent researching it—about 2,500 years back.

B.C. research

"You've heard of Hippocrates?" he asks, picking up a small brass bust of the father of medicine from a shelf in his office crammed with books and manuscripts. "The Hippocratic theory of medicine was that disease was caused by an imbalance among four humors in the body. The empirical basis for Hippocrates' theory was that when blood drawn from a healthy person was allowed to stand it clotted as one red mass. However, eventually the clot retracted expressing the straw-colored serum, thus giving two layers. But when the patient was febrile, by the time the blood clotted it separated into four layers—a dark red clot at the bottom called the melancholia, a bright red second layer called the sanguis or true blood, a whitish clot called the phlegm as the third layer, and then the straw-colored serum at the top, called the cholera. The purpose of therapy in those days was to get rid of the phlegm. You bled the patient, who got well in spite of your intervention, and the blood stopped separating into four layers."

ABOVE: The ongoing collaboration between Dr. Sehgal and Rajamma Mathew, M.D., right, derives from their research on IL-6, formerly known as interferon-beta-2. Together they have delineated the structure of the lung endothelial cell plasma membrane in which the IL-6 receptor sits.

By the early 1980s, Dr. Sehgal and his colleagues at Rockefeller University in New York City were among the first researchers to piece together a new story about this "phlegm"—actually, a fibrin clot. They found that fibrin is the end result of a biochemical cascade that begins with an injured cell's release of a protein they called interferon-beta-2, now known as IL-6. It, in turn, is carried by the bloodstream to the liver, causing liver cells to increase their production of various protective plasma proteins including clotting factors such as fibrinogen.

"I co-discovered it in my lab back in 1980," he says. The second lab on the heels of IL-6 in the guise of interferon-beta-2 was that of Dr. Michel Revel at the Weizmann Institute in Rehovot, Israel. Several other groups were also tracking down biological activities that turned out to be IL-6. As Dr. Sehgal explains: "IL-6 is the host's response to infection, neoplasia, injury or disease processes. It's the body's alarm that something is wrong. All paths eventually lead to IL-6."

But the initial response from other scientists was hardly warm and fuzzy. "We were attacked unmercifully from within the interferon community," he recalls. His seminal paper on the subject, published in *Nature* in 1980, "was torn to

shreds," he says. During the interim, Dr. Sehgal has been in good company—yet another scientist made to endure an injustice that time and imagination would put to rest. With the human genome now completely sequenced, citations to Dr. Sehgal's work with human IL-6 on chromosome 7 now appear as part of the Reference Database.

Bench to bedside

Since coming to New York Medical College in 1991, Dr. Sehgal has devoted himself to translational research—transferring his basic science findings on IL-6 into clinical practice. His first opportunity was an investigation into the significance of IL-6 during pregnancy.

"When I moved here, I collaborated extensively with our chief of ob-gyn, Dr. Nergesh Tejani, to validate the proposition that IL-6 in the amniotic fluid is a marker for pre-term labor," he says. "Over the last 10 years, that has stood the test of time. High IL-6 in the amniotic fluid even predicts cerebral palsy in a baby. That is the most important thing that has come out of this whole body of research."

As he continued to apply his research to clinical practice, he and Abraham Mittelman, M.D., associate professor of medicine in the division of oncology and hematology, discovered that very high elevations of IL-6 in blood serum predict a good response to cancer vaccines. Equally productive is the ongoing collaboration with Rajamma Mathew, M.D., associate professor of clinical pediatrics. Using an animal model, Dr. Mathew discovered independently that the level of IL-6 expressed by the lung endothelial cell plasma membrane rises sharply just before the development of hypertension in the pulmonary artery. "Indeed," says Dr. Sehgal, "Dr. Mathew has been working on various aspects of this experimental model in the Department of Pediatrics for the last 10 years." Working together, the researchers have since delineated the structure of the lung endothelial cell plasma membrane on which the IL-6 receptor sits.

"Most molecular biologists draw the cell membrane as a balloon," Dr. Sehgal explains. "But it turns out the membrane is constructed of subunits called rafts." The rafts are held together by a kind of scaffold made of the protein caveolin. In an animal study conducted last year, Drs. Mathew and Sehgal found that the chemical monocrotaline, which causes pulmonary hypertension and a rise in IL-6, also caused a massive reduction in caveolin levels in lung tissue. "This means that the scaffolding for signaling is gone," Dr. Sehgal says.

ABOVE: Working independently in the area of pulmonary hypertension for 10 years, Rajamma Mathew, M.D., discovered that the level of IL-6 expressed by the lung endothelial cell plasma membrane rises sharply just before the deadly development of hypertension in the pulmonary artery, commonly called pulmonary hypertension.

Pulmonary repercussions

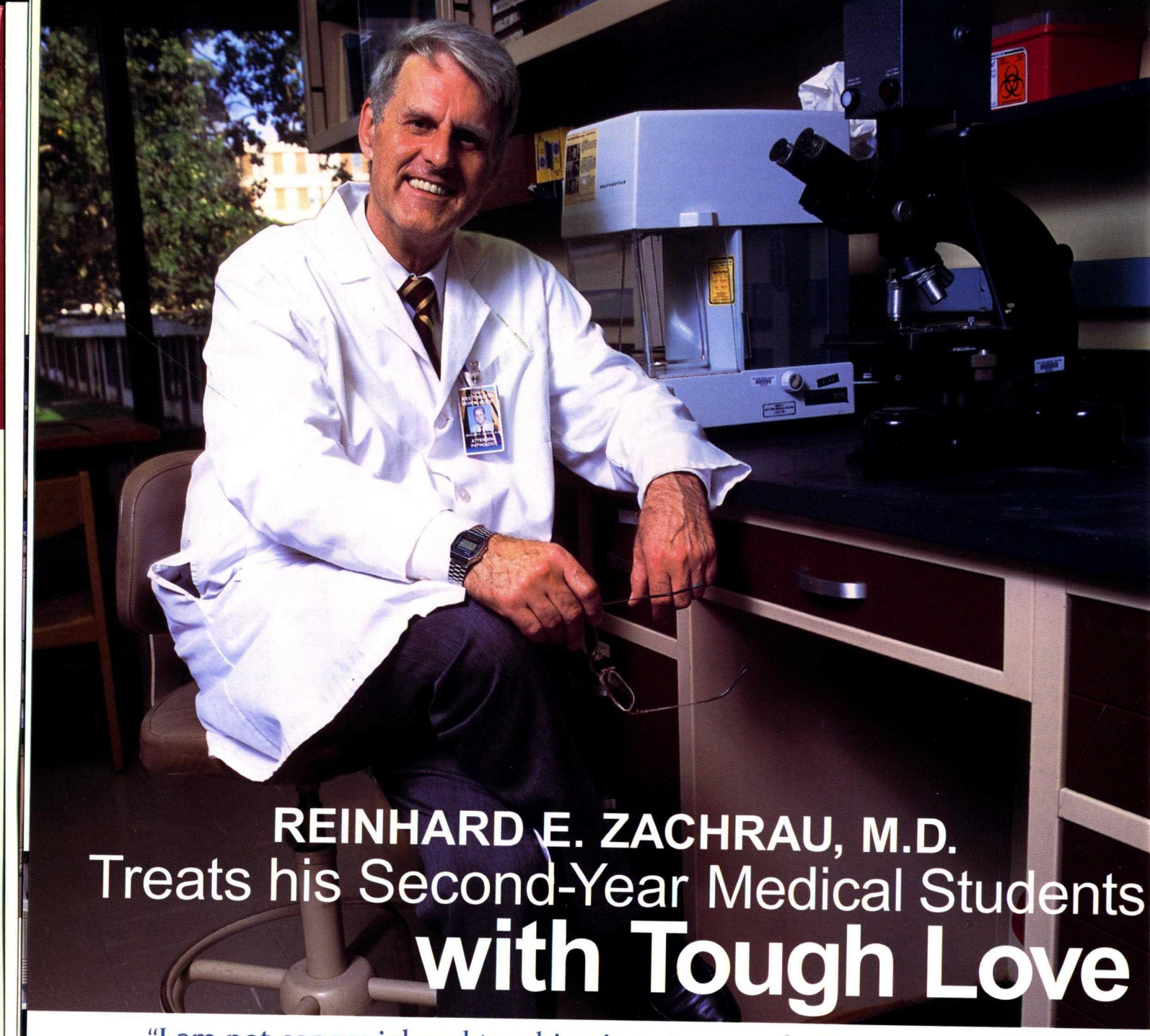
When he first saw the Western blots on which the results of the study were apparent, and their theory confirmed, "I picked up the phone to Dr. Mathew and jumped up and down. It was a eureka moment. If you can't enjoy the process of science, get out of it." His passion for research goes back to his boyhood in Bombay. After his father, a mathematician, died of cancer, "I dreamed of being in science, in cancer research," he says. His older daughter is now a theoretical physicist at Rutgers, and his younger daughter, 16, lives at home with him in Pomona, N.Y. Says the single father with unmistakable pride, "I've been taking care of my two daughters by myself since 1991. I'm a one-man, full-service household."

The attitude extends to the workplace, where, he confesses, "My usual line in the lab is that I'd like to do the experiment myself, so if it doesn't work I can blame only myself, not someone else. You have to be a nonconformist." Still, to further study the link between caveolin, IL-6 and the development of pulmonary hypertension, Drs. Sehgal and Mathew will share the five-year NIH grant. "If we can validate this model," he says, "the hope and prayer is that we can come up with strategies to replenish the scaffold, or interfere with downstream events to stop the progression of the disease." The extra demands placed on the heart by pulmonary hypertension causes the heart muscle to enlarge and the right ventricle to weaken. Left unchecked, it can lead to heart failure and death.

It's no accident that he has roamed with unusual freedom across academic disciplines—from ob-gyn to oncology to pulmonary hypertension. "That's one of the strongest things about this institution," Dr. Sehgal says. "It gives me a fantastic opportunity to follow my nose wherever it takes me. At Rockefeller the lines were etched in stone. Here, if I can be entrepreneurial, I can make things happen. I'm in one of these extremely rare situations where I can do any science and any clinical research I want to do. Have you ever heard of a molecular biologist teaching gross anatomy lab and dissection? Well, now you have. This College has given me the rare privilege to be present every August to November as incoming first-year medical students go through that special rite of passage to becoming doctors. It is a precious thing to witness...

"Today, 33 years after I got into med school, I am exactly where I want to be. When I come here in the morning, I don't come to work, I come to play. I have fun in the lab. Isn't it amazing that the system actually pays me a salary to do that?"

True enough, and that is one aspect of science Dr. Sehgal is unlikely to rebel against.



REINHARD E. ZACHRAU, M.D. Treats his Second-Year Medical Students with Tough Love

"I am not congenial and teaching is not a popularity contest," insists the director of the Pathology/Pathophysiology course. Then why do students revere him and consistently rate his grueling program tops on surveys?

By Marjorie Roberts

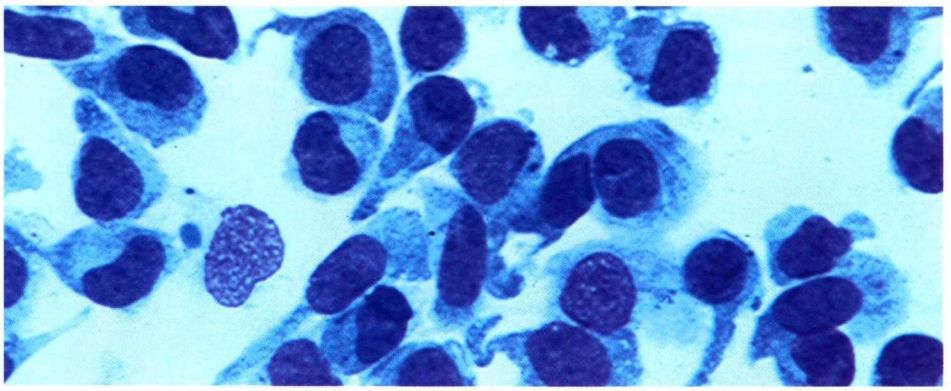
With a navy blazer loose around his shoulders and his arms left to swing free, Reinhard Erich Zachrau, M.D., cuts an unmistakable and dashing figure as he makes his way between an office in Munger Pavilion, his laboratory in the Basic Sciences Building and the Medical Education Center, where he directs the instruction of 190 second-year medical students in the study of Pathology/Pathophysiology. It is the only program in the School of Medicine that lasts the entire year. For Dr. Zachrau, professor of pathology, it represents the heart and soul curriculum in the medical regimen, a primer of sorts for the lifelong learning process to which a physician must commit. At New York Medical College, this translates into an Excellence in Teaching Award year after year for Dr. Zachrau and a course that consistently gets one of the highest ratings in a survey from fledgling doctors just before Commencement. This is validation enough for the course director to justify his working schedule, a minimum 12-hour day that leaves precious little time for the breast cancer research he would

never abandon. And so he lives the life of a harried but gallant philosopher—a noble thinker who embraces the "categorical imperative" formulated by Emanuel Kant, with whom he shares a common birthplace, Konigsberg, Eastern Prussia. ("It means your actions should always be such that their essence could be elevated to universal law for all rational beings," explains Dr. Zachrau.) This is not to say the post-Victorian thinker should be underestimated. He is the classic pragmatist who uses all the charm and know how of his German heritage to accomplish whatever he sets out to do. And if that is tinged with a little obsessive-compulsive behavior it's all right with him—as long as you don't call him Teutonic.

It took faith

In 1986 there were naysayers aplenty when Dr. Zachrau initially revamped the course in Pathology that was overdue for an overhaul. "We designed it without any model," he says. "It was a struggle at first, but when you know it has to be done, the labor pains are worth it." The "we" were Richard Levere, M.D., former chairman of the Department of Medicine, and Yutaka Kikkiwa, M.D., then chairman of the Department of Pathology. "They okayed the integration of the courses of Pathology and Introduction to Clinical Medicine and left me to implement it," he says.

"Pathology is a course in disease processes, and pathophysiology investigates the clinical correlates that deviate from the normal," Dr. Zachrau begins. "The beauty of what we did was to bring it all together—what are the abnormalities, how they are diagnosed and what we do about it? We integrated the clinical aspects from the beginning. For example, in cardiology we taught abnormalities of the structures, then of function and finally, how these abnormalities manifest themselves in patients." And to give the clinical side more clout, Dr. Zachrau implemented the use of two "Harveys," $80,000 (each) computerized mannequins that can simulate a variety of symptoms and conditions to help students hone their skills in diagnosing cardiovascular ailments. The buy recommendation came from Susan A. Kline, M.D., vice provost, university student affairs and executive vice dean, academic affairs. She had this to say about Dr. Zachrau: "He teaches a lot more than pathology. He teaches professionalism and duty and being meticulous in everything you do. The high standards he sets makes his course the tie that binds everything together...He is a role model because he never asks more of them than he does of himself."



The above microscopy by Dr. Zachrau evinces an example of a breast cancer patient's own immunological defense at recurrence. The photomicrograph illustrates the accumulation of activated lymphoid cells in a skin test from a postoperative patient against her own breast cancer cells. Dr. Zachrau says the result is "consistent with the presence of prognostically favorable anti-cancer cell-mediated immunity." (PHOTOMICROGRAPH COURTESY OF RHEINHARD E. ZACHRAU, M.D.)

An autopsy

Another program enhancement was Dr. Zachrau's insistence that every student witness an autopsy, followed by a written report and an oral examination. Ironically this may be the last year for the exercise due to the dearth of procedures being done at affiliated hospitals. "There are not enough to go around and it will be a loss," he fears, "because the autopsy assignment forces students to apply all their newly acquired knowledge in an integrated fashion. Beyond providing the ultimate verification of the cause of death, it may also show unexpected side effects of whatever drugs were being used, and may turn up abnormalities in the patient that weren't even suspected...

"Some clinicians say you don't need autopsies because the modern diagnostic procedures are so accurate. Well, I wouldn't be for it if I didn't see the value in it," he says. "You know there are benefits to society beyond those of the individual."

His voice loses intensity though his face shows anger when Dr. Zachrau touches on a childhood that coincided with the rise of the German war machine in 1939. "I was a refugee twice," he declares. "The Russians invaded East Prussia and we ended up in the outskirts of Dresden. I was five or six and we went through the heavy bombings. After the war that area was turned over by the allies to Russia and I became a refugee a second time...I seldom go back to Germany—the last time was to bury my mother."

His pride is restored when he mentions having graduated medical school at the University of Heidelberg, "founded in 1386 and the oldest in Germany, and one of the oldest in Europe. You get only a physician's degree," he advises. "If you want to call yourself doctor you must write a doctoral thesis and defend it." Dr. Zachrau's dissertation explored the biological behavior of ovarian tumors.

Fond remembrance

Although he admits to having had no thoughts of teaching while he was a student, "I knew I would have to pay back eventually," he says. "My God, I had such a great time in medical school, with no responsibility other than for my own growth." His citation in the 1995 Annual Report dedicated to the best teachers contained the following reply to the question, Why do I teach?

"I feel fortunate having had some of the most magnificent teachers imaginable, and the more time has passed the more

I have come to realize how much they have given me and how much I am indebted to them. With my own commitment to teaching, I hope to pay back some of this debt, while enjoying the privilege of assisting in the births of new colleagues."

During the mandatory two-year rotating internship at the 2,400 bed medical center in Karlsruhe, Germany, Dr. Zachrau spent many sleepless nights devouring the essentials of surgery, internal medicine, obstetrics and gynecology and pathology. The latter would serve him well when, after only a couple of years, he decided to put practicing internal medicine and family practice on hold. Then it happened—a surprise turn of events in 1969 that altered his life. "During my internship I did research trying to isolate oxytocinase from the placenta, an enzyme that one Janis Klavins was also researching at Duke. I was on the verge of accepting his offer to come and work with him in North Carolina when he stopped writing—for eight months. Then one day he turned up in the pathology department at Downstate Medical Center in Brooklyn and he still wanted to work with me," Dr. Zachrau says.

"I wanted to find out if the placenta was actually the source of oxytocinase, which inactivates pituitary oxytocin, to keep the pregnant uterus from contracting. I went to see him, but when I arrived his laboratory was not even set up and his electron microscope was sitting in a crate in the basement of the hospital. For six months I struggled with the situation, performing the duties of a pathology resident. I'd really had enough after another six months went by and finally made the decision to return to Germany."

No going back

Fate intervened again in the person of Whitney Branwood, M.D., a pathology professor he had known at Downstate who went to work at what was then called New York Medical College, Flower and Fifth Avenue Hospitals in New York City. Dr. Branwood offered Dr. Zachrau a research position and a residency in pathology in lieu of going home disappointed. And that's how he met Maurice Black, M.D. '43, professor of pathology and a College grad. "I decided to work with him for two years and it turned into forever," Dr. Zachrau smiles.

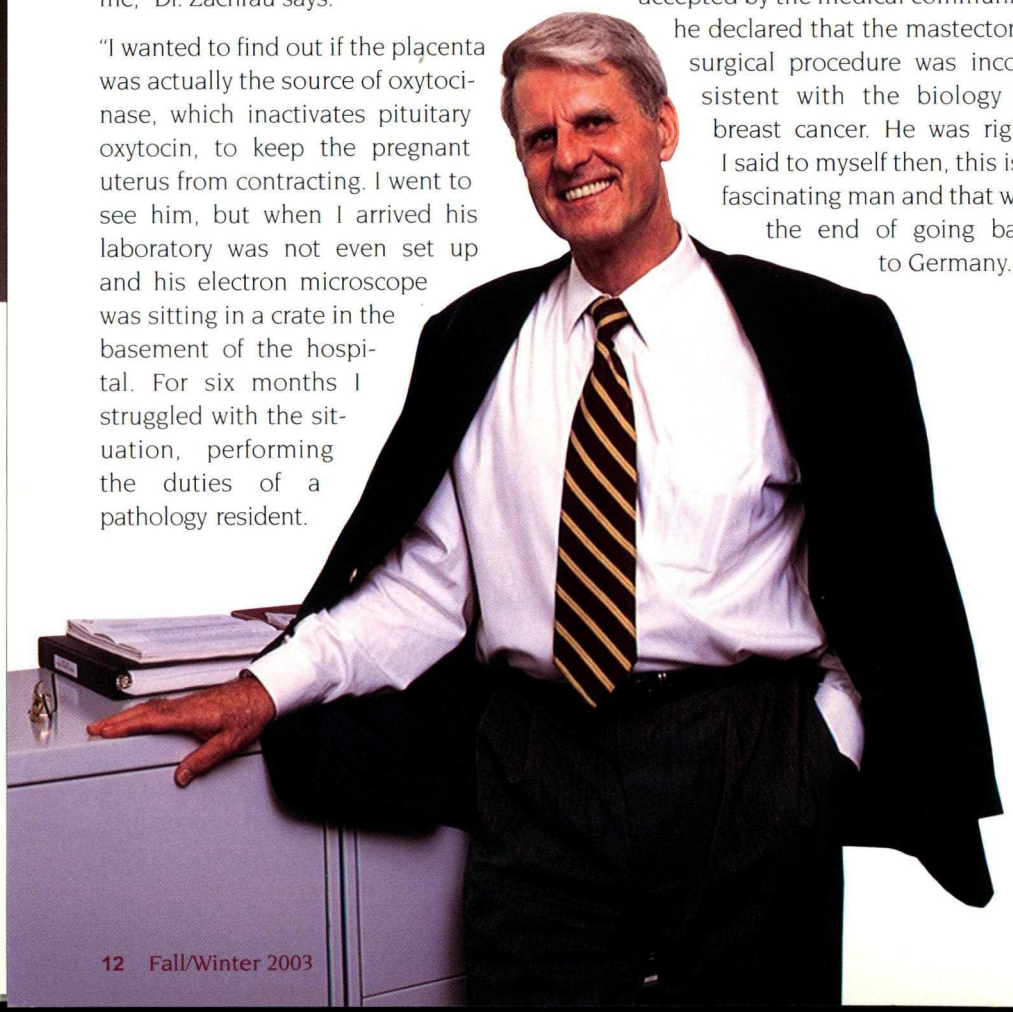
His eyes widen and he becomes more animated when speaking reverentially of the renowned breast cancer researcher. (The editor of the journal *Cancer* asked Dr. Zachrau to write a tribute to Dr. Black upon his death in 1996.) Like so many innovators, Dr. Black held revolutionary ideas. Dr. Zachrau explains, "Forty years before it was accepted by the medical community, he declared that the mastectomy surgical procedure was inconsistent with the biology of breast cancer. He was right. I said to myself then, this is a fascinating man and that was the end of going back to Germany."

It also ended his expectation of becoming an internist. While doing research he completed his pathology residency and was chief resident for most of the 1970-1973 term. In 1972 he earned his first faculty appointment as an assistant instructor. A full professor since 1988, with tenure added three years later, Dr. Zachrau would again embark on a radical change for the pathology/pathophysiology course as the millennium approached.

> "... I really wanted to create a different state of mind for the student. Rather than being passive listeners in a dark auditorium, I made them responsible for what they learn."

Other fare

Second-years do not live by pathology alone, and whether it is microbiology or pharmacology, it becomes the province of Dr. Zachrau, who schedules all courses taken in the second year. "There are 190 people with problems, and some who need mentoring, and there are recommendation letters that must be done in anticipation of students applying for residencies," he says. "Oh, the logistics of this enormous course! There are more than 360 hours of teaching [pathology/ pathophysiology] to be coordinated for 190 students." They are further divided into 18 groups for problem solving and 9 groups of 20 for clinical pathological correlation exercises—all due to the radical makeover he designed.



LEFT: This familiar pose is the trademark of Reinhard E. Zachrau, M.D., professor of pathology and educator extraordinaire. There are more than 360 hours of teaching pathology/pathophysiology that he must coordinate for 190 students in the second-year class.

"We made a critical conversion in the lecture-based course to a self-study oriented format," Dr. Zachrau explains, "the most daunting task I ever faced." He emphatically acknowledges the supportive roles of Dr. Kline and Karl Adler, M.D., then dean of the School of Medicine. "He was very apprehensive about the sea change that would occur in the curriculum. "We eliminated 70 percent of conventional lectures, leaving time for guided self-study and for more interactive exercises in lab [modules] with a 20 to 1 ratio of students to instructor. Also for problem-solving exercises, with 10 to 12 students prepared to solve or at least learn to recognize what information is required to solve the problem...I really wanted to create a different state of mind for the student. Rather than being passive listeners in a dark auditorium, we made them responsible for what they learn. Now they can do it their way, knowing they can do it however it's best for them. Then we will verify if they achieved what was meant to be achieved!" The students already know that answer. By any measure, internal or external, the results of the USMLE Step I boards show since 1995 that the New York Medical College class scores consistently exceeded the national averages.

His research

"The placenta faded away once breast cancer got a hold of me. It never let go," admits Dr. Zachrau as he outlines his concept of cancer: "In a nutshell, cancer is a disease that reflects dynamic interaction between the cancer as the aggressor, and the defense mechanisms of the patient—just like in infectious diseases. I'm focusing on characterizing the specific features of a cancer to determine its aggressiveness, and I measure the cell-mediated immunity of patients that is directed specifically against their own cancer cells through skin testing. It is analogous to skin testing for TB and this is how it's done.

"We prepare test material from a patient's own cancer and attach it to a glass coverslip that is applied to a small skin abrasion. After 30 to 36 hours the coverslip is removed and then examined for evidence of lymphoid cellular reactivity. Our volunteers are referred by surgeons. What we are after is the documentation that the clinical behavior of cancer is not just determined by the properties of the cancer cells, but also by the effectiveness of the patients' immunological defense against them. I am trying to determine how best to assist a patient in maintaining an active defense directed against a cancer to prevent it from recurring. And, we try to stimulate anti-cancer, cell-mediated immunity in patients who don't have it."

There are nearly 100 breast cancer patients currently being followed by Dr. Zachrau, who at one time had many more in his study. He has no help, but is counting on getting a full-time technician to work in his lab. Incidentally the lab is one of a kind, with matching furniture arranged for maximum efficiency, posing in a state of cleanliness that may never be equaled anywhere at any time. It is the way Dr. Zachrau conducts his affairs, personal and professional, though he admits to having two, no three other passions in his life.

"My greatest love is sailing, but it will have to wait until I retire," he says. "I love to read, and recently finished Dante's *Inferno*. This is the third time I have read it, and this time the edition provided a juxtaposed version in Italian. I don't speak Italian but knowing Latin helped a lot." And then there is his dog, a black miniature dachshund named Lord Nelson the Second. "I call him Lordy," he confides. "He is all muscle and there is not a gram of fat on him...I've never had him fixed. The idea had such a finality to it I couldn't bring myself to do it."

PHOTO COURTESY OF JOHN VECCHIOLA

Founder's Dinner Brings Out the Best

Five hundred alumni, faculty and guests attended the College's annual fund-raising gala in September. Rev. Msgr. Harry C. Barrett, D.Min., M.P.H., left, president and chief executive officer, congratulated honorees before the festivities. With him were, from left: Kenneth E. Raske, president of the Greater New York Hospital Association; faculty members Felicien M. Steichen, M.D., and James T. Mazzara, M.D. '63; John Tuller, director of public relations at *The Journal News,* accepting the Community Service Award on behalf of his organization; and Ronald F. Poe, president of the Board of Trustees.

From OR to VR: Virtual reality takes on surgical training

ABOVE: John A. Savino, M.D., left, professor and chairman of the Department of Surgery, and Donald A. Risucci, Ph.D., director of the Surgical Skills Center, have teamed up to put virtual reality to the test: To what level can surgeons perfect their skills?

Students and residents learning minimally invasive surgery have a new center for training, courtesy of John A. Savino, M.D., and Donald Risucci, Ph.D

By Susan Hoffner

A catch phrase it may be, but nonetheless true: practice makes perfect. This simple notion is being applied to the complexities of medical education in a novel way at New York Medical College as surgeons and surgeons-in-training make their way to the new Surgical Skills

Center (SSC). Established through a partnership between the College, Westchester Medical Center and Ethicon Endosurgery Inc., a leading U.S. surgical supply corporation, the facility is without rival in the Hudson Valley region. Approximately 2,000 square feet have been renovated at the medical center's Macy Pavilion on the Valhalla campus to accommodate the SSC, setting the stage for advanced curriculum in skill enhancement on everything from basic laparoscopic surgery for adult and pediatric procedures to advanced minimally invasive trauma care. Teaching modalities range from the most basic simulators and didactic online training to state-of-the-art virtual reality and minimally invasive surgery (MIS) trainers.

Fastest route

The vision for a surgical skills laboratory had been forming in the mind of John A. Savino, M.D., professor and chairman of the Department of Surgery, for a number of years. The idea came to him even before he took the helm from Louis R.M. Del Guercio, M.D., professor emeritus of surgery, who retired in 2001 after nearly 25 years. "We wanted to have a place where surgeons with all levels of experience could come to hone their skills and learn new ones," explains Dr. Savino. "This center will provide the safest and fastest route to putting the most advanced minimally invasive methods into practice, which has been our goal all along." He heralds MIS techniques as "the future of surgery." The skills are particularly suited to learning through computer simulation because as he explains, "Surgeons performing these types of procedures on actual patients are already viewing the surgical field on a monitor."

It may be a disturbing thought to patients, but previously, surgeons were required to develop finesse with all new techniques only through real-world practice, completing numerous procedures on live patients. Surgeons gained initial exposure to the techniques through continuing medical education courses and laboratory sessions, doing procedures on animals, usually pigs. Dr. Savino recalled

ABOVE: Laura Choi, M.D., completing a one-year fellowship in minimally invasive surgery offered by the Department of Surgery, finishes the suturing exercise with high marks at the Surgical Skills Center in Westchester Medical Center.

that just slightly more than a decade ago when MIS was in its infancy, he and his colleagues traveled south to take skill-enhancement courses that were easily supplied with organs from large, neighboring pig farms.

One of the first devices used in the training of minimally invasive procedures is the box trainer. The rectangular Plexiglas box has three holes through which two surgical instruments and a camera are placed, in much the same way that tools are passed through small incisions into a patient. "Box trainers accurately simulate the confining, rigid environment that limits the surgeon's range of motion in actual surgery," explains Donald A. Risucci, Ph.D., associate professor of surgery and director of the center. "It is a low-tech apparatus, but some surgical educators believe box trainers offer better simulation than some of the more advanced equipment. It is actually a bit controversial for that reason."

Enter virtual reality

At the other end of the spectrum are two sophisticated computer terminals that could be dubbed the "crown jewels" of the skills lab. They are the LapSim™, short for laparoscopic simulator, one of the latest virtual reality trainers, and the minimally invasive surgery trainer, or MIST, which perfects visual perception skills with a set of abstract exercises. First appearances are deceiving; with the monitors turned off both units are rather unimpressive. But if you press the start-up button on the virtual reality trainer, launch the LapSim Basic Skills™ software, and select one of a dozen or so task modules, everything changes. Realistic organ-like objects and tissue hover on screen, glistening and pulsating, as one imagines that only the human equivalent can.

A turn at the controls gives the eerie feeling of peering deep inside a human body—up close and very personal. Computer simulation exercises run the gamut from beginning modules on camera and instrument navigation and coordination, to more advanced tasks like applying clips and suturing, which involve a foot pedal for cutting to activate cauterization. There is even a precision and speed module, described by the manufacturer as "light-hearted...with serious intent....navigation practice in a game-like context."

Scorecards rate docs

Despite its ultimately serious application, the complete software package resembles a video game in some respects. After each module is completed, a scorecard screen comes up, presenting numerical evaluations for the user on various criteria including overall tissue damage, incident of maximum damage and number of right and left instrument misses. Tabulations are given for the distance the instruments travel, as a way of calculating surgeon efficiency and smoothness.

ABOVE: Training module on LapSim displays the on-screen command, "Place the stitch within the circle," putting residents' suturing and cauterization techniques to the test at the new Surgical Skills Center.

"One striking advantage to LapSim and MIST is the ability to preprogram individualized exercises for students and to collect data scores," explains Dr. Risucci, whose unusual background of surgery, psychology and educational research make him uniquely suited to direct the skills laboratory. He and Dr. Savino are on a mission to develop research that will quantify the success of these new teaching modalities.

"Some preliminary data on the effectiveness of surgical training via computer simulation is out there but much more needs to be done," says Dr. Risucci, who held an academic appointment at Cornell University Medical College as assistant professor of psychology in surgery prior to joining the College faculty in 2002. At the time he also served in an administrative role as assistant chairman for education and research in the department of surgery at North Shore University Hospital. Dr. Risucci's career has traversed a somewhat accidental and unusual twist of fate, beginning as a doctoral student in applied psychological research, and later as a faculty member in psychology at Hofstra University in Queens, N.Y. He then focused on neuropsychological research, but now has landed squarely in surgery—specifically, in the forefront of surgical education. Dr. Risucci was recently elected secretary of the executive committee of the Association for Surgical Education, which represents more than 190 medical schools and institutions in the U.S. and Canada in promoting the art and science of education in surgery.

Different strokes

Benefiting the most from the new lab and research are those contemplating surgery as a specialty in medical school, attendings wishing to improve their techniques and others who have decided it's finally time to learn new ones. Third-year medical students will get first crack at MIS skills training during their required surgery rotation, while fourth-years taking a surgical subspecialty rotation will find further opportunities there. Additionally, fourth-years will be able to sign up for a new surgical elective with a significant MIS component coupled with skills enhancement. Even interested first-years get a taste of the new lab when Dr. Savino and his faculty coach them through special presentations they will give before the student Surgery Club.

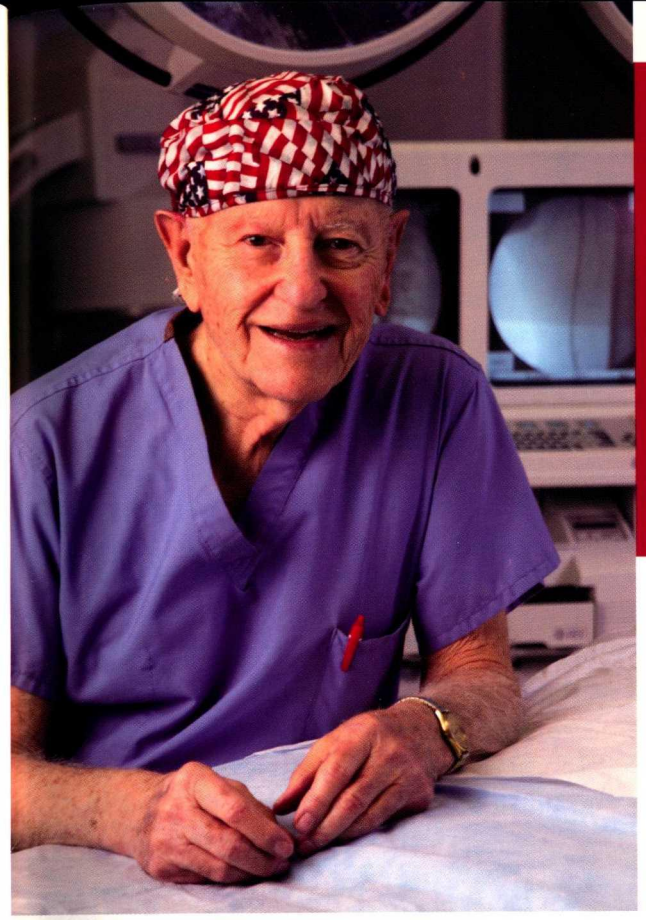
Still, it will be the surgical residents who utilize the lab most, spending numerous hours in the facility during the five years of their residencies. The junior residents, PGY-1 and 2, will make good use of the 12-hour didactic CD-ROM-based module Laparoscopy 101, while PGY-4 and PGY-5 residents will develop speed and accuracy toward the end of their residencies. There also are three surgeons enrolled in a one-year MIS fellowship who are looking to develop finesse in the lab.

The advantages of using computer simulation in training are enormous. Dr. Savino cites the 1998 report by the Institute of Medicine of the National Academy of Sciences entitled "To Err is Human," which revealed dismal statistics on hospital deaths related to human error. "The report charged us to improve procedural accuracy and performance," he says. "This is one way we will achieve the goals we have set.

"Minimally invasive surgery is no longer the future, it is here now—and there is no turning back. More than 60 percent of surgeries are done this way now. In 5 years it will be 80 percent. Once unveiled, the technique will only grow in popularity. Patients obviously want it. Hospitals want it. The government, private insurers and managed care companies want it. With advances such as ultrasonic technology replacing electrical current for cauterization, plus developments in fiber optics and safer instrumentation, the benefits are continuing to accrue. Doctors are obligated to provide it."

MIS techniques are not ergonomically friendly for doctors, but that too will eventually change, Dr. Savino predicts. "MIS is a skill that must be learned and early perception development is needed. These skill sets are advantageous for a wide range of physicians, not just surgeons. We have urologists performing nephrectomies, gynecologists performing hysterectomies, even interventional cardiologists doing angioplasties and stents. All of these and others will be able to utilize the skills enhancement laboratory."

Perfecting maneuvers through repeated practice, in a learning environment where there is little pressure and the stakes are not as high as they are in a clinical setting, can only be a good thing for all those involved—doctor, patient and family.



Alumnus names the Medical Education Center auditorium WITH GIFT OF $1 MILLION

Surgeon John W. Nevins, M.D. '44, is still assisting in a Palm Springs hospital OR where he's worked since 1955.

By Marjorie Roberts

There are very few ways to leave your mark for future generations in a healthy society.

You can do good works, contributing your time, your brains and your enthusiasm; produce progeny who are accomplished and make their own success; or, you can endow a worthy cause by your own means, which legacy can result in the inscription of your name in bricks and mortar to acknowledge this act of generosity. The first and third descriptions rightfully tell the story of John W. Nevins, M.D. '44, who recently pledged and donated $1 million to his alma mater.

"I was a regular giver, but it was always in my mind to contribute a major amount to the College," he explains. "I am very grateful for the degree they gave me and I owe them a lot. I wouldn't have gotten the degree otherwise and I had to give something back." In May Dr. Nevins will celebrate the sixtieth anniversary of his graduation from New York Medical College, then located in New York City. Now his name adorns the soffit over the doors of the auditorium in the Medical Education Center on the Valhalla campus, perhaps to inspire another individual to follow in his charitable footsteps.

Right situation

He selected the auditorium as his namesake because, he says, "It's a place where people meet or hold seminars. It seemed to me to be the right place for the donation to go." Dr. Nevins has this habit of doing the right thing. That must be why he goes to the gym every day, from 2 to 3 hours, weekends included. "Fitness has benefits—55 benefits and every one of them is important," he advises, without naming any of them.

Dr. Nevins has been practicing at Desert Regional Medical Center ever since he visited Palm Springs and "fell in love with it...Most of my colleagues are retired, but I'm still assisting everybody in the hospital, the only semi-retired surgeon still working," he says. Then he clarifies his role as "an assistant [general] surgeon who works every day." In addition, a couple of times a month he volunteers his services at a breast cancer detection clinic.

Earlier flux

As smoothly as the last half-century in Palm Springs was for Dr. Nevins, his formative years were pretty much unstable. He was born in Arizona, where his father was a mining engineer. His housewife mother remarried after the death of his father, and young Nevins was all of 17. He came to New York and struggled to enter undergraduate school; after one year at New York University, the young man switched to Columbia University and graduated in 1942. It was during those years that he settled on medicine.

"During my last year in medical school, I got a job as an extern at the City Hospital on Welfare Island. There was one job and I was the chap to get it," he recalls, an event of obvious significance for him. He was interning at Bridgeport General Hospital in Connecticut when the war in the Pacific caught up with him. Drafted into the Navy, he was by now "semi-interested" in surgery. "I was eager to get a general surgery residency

(continued from previous page)

but none was available and I wasn't very happy with that," he admits. "So I took myself to Baltimore for one year in ob/gyn, and followed it with a year of family medicine in a private practice in Toledo, Ohio."

If you don't succeed...

Biding his time for what he really wanted, Dr. Nevins submitted to another residency in otolaryngology and plastic surgery, but at least he was back at Flower-Fifth Avenue Hospitals and in the New York Medical College fold. Finally, with some kind of record for determination, John Nevins, M.D., began a four-year residency in 1949 at Flower-Fifth and Metropolitan hospitals doing general surgery. But not entirely without complication from Uncle Sam, who sent him a draft notice while he was at Metropolitan, inviting him to spend a year with the Marine Corps in Korea. Upon his release he returned and finished the surgical residency.

> "I am very grateful for the degree they gave me and I owe them a lot. I wouldn't have gotten the degree otherwise and I had to give something back."

Though his person is in Palm Springs, where he intends to remain, his heart is often back east at New York Medical College. The university is proud to have been his educational choice, and on behalf of the faculty, staff and students, is grateful for his abundant generosity.

Legacy of a Leader

(continued from page 4)

From her earliest years, Dean Smythe's resume demonstrated the priority of service. She advised two New York City mayors on subjects as diverse as hospital fiscal operations and human services restructuring. She counseled the governor on healthcare reform. Indeed, until the time of her death, she generously lent her expertise to countless professional, business, educational and community organizations, often as a member or chair of a board of directors. Among them were Mutual of America Life Insurance Company, March of Dimes Birth Defects Foundation, Catholic Charities USA, Visiting Nurse Services in Westchester, Dominican Academy, Manhattanville College, New York City Health Systems Agency and the Hudson Valley Health Systems Agency. With the aim of advancing the healthcare system, she chaired or served as a member of numerous commissions, task forces and agencies, including the New York State Hospital Review and Planning Council.

When Dean Smythe joined the College, she was charged to develop programs and policies that would assure the growth, vitality and prominence of the Graduate School of Health Sciences, as it was then known. She did so with distinction. Under her leadership, enrollment doubled, faculty grew and strengthened, and important programs such as physical therapy, speech-language pathology and most recently, a doctorate in epidemiology, were added to the curriculum.

Dean Smythe was an influential player on the national public health stage and had an astonishing network of colleagues in leadership positions. These personal contacts opened doors for the School of Public Health and the university. Distinguished persons were persuaded to lecture or were prevailed upon for insights that guided the development of curriculum relevant to emerging public health needs.

Dean Smythe spearheaded the graduate school's move to a new home in the Learning Center, was a driving force in the development of the Center for Interactive Learning, and recommended changing the name of the graduate school to the School of Public Health in 2002. Through conferences convened on issues such as bioterrorism and immigrant population health, long before they were newsworthy, Dean Smythe positioned her school as a major educational force and regional resource in the healthcare field. Ever responsive to the needs of employed students, she created satellite locations for the School of Public Health in Danbury, Conn., and Suffern, N.Y.

At the university, Dean Smythe was professor of health policy and economics and president of The Partnership for a Healthy Population, which focused on improving community health. Last year, Westchester County honored her with its first Distinguished Public Health Service Award. A crowning achievement, attained weeks before her death, was the School of Public Health's initial accreditation by the Council on Education for Public Health. The school joins a select group of 34 CEPH-accredited schools nationwide.

Dean Smythe was one of only 15 members comprising the Committee on Educating Public Health Professionals for the 21st Century, charged by the Institute of Medicine of The National Academies to develop an educational, training and research framework for schools of public health, with a goal of improving population health. Her most recent appointment was to a national committee of educators working with the Centers for Disease Control and Prevention to promote research focused on disease prevention.

To say Dean Sheila M. Smythe will be missed is no measure of the extent of her loss.

SECOND GENERATION DRIVES THE ENGINE in Cardiovascular Research Institute

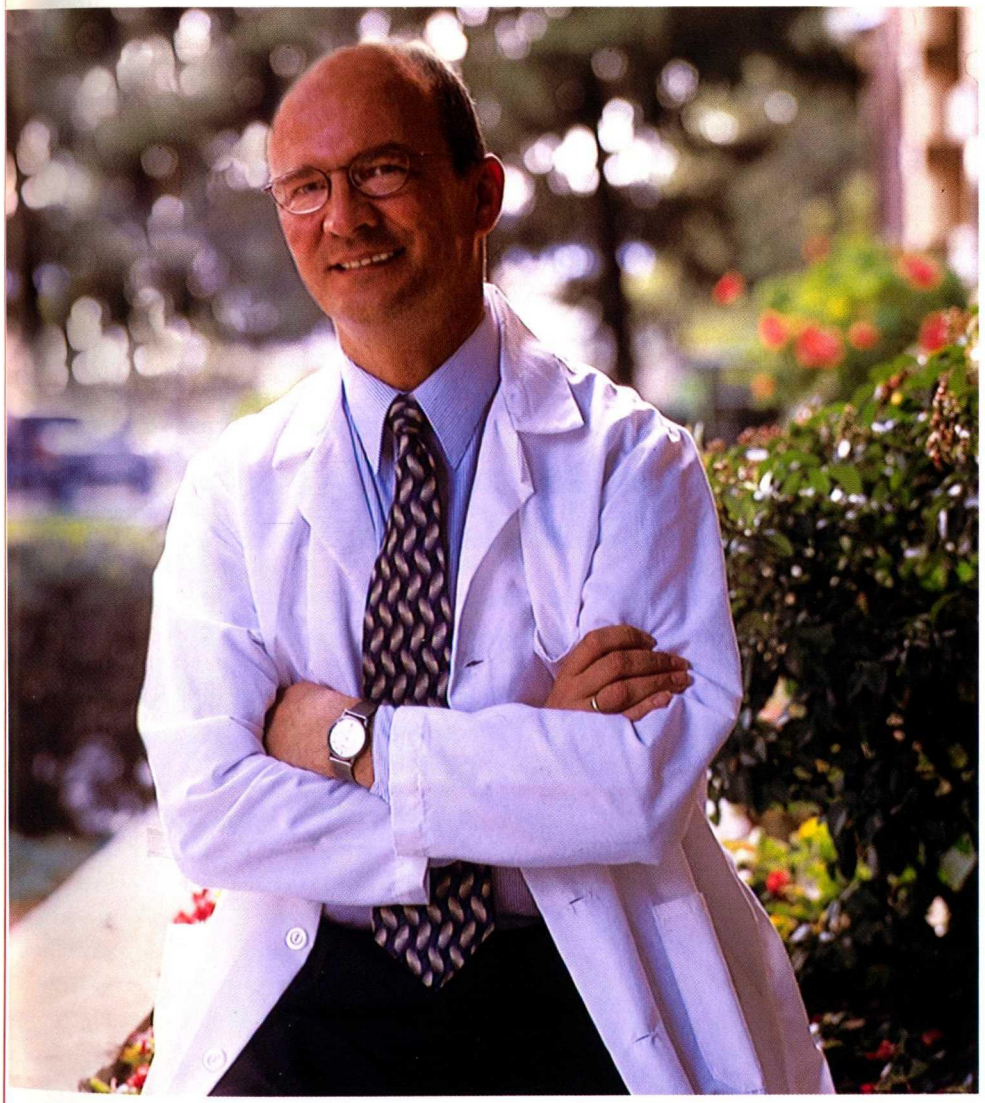
Jan Kajstura, Ph.D., and Annarosa Leri, M.D., carry out the directives of Piero Anversa, M.D. Clinical trials are in the offing to test his revolutionary theory that the heart can heal itself.

By Marjorie Roberts

The senior scientists in Piero Anversa's laboratory—formally known as the Cardiovascular Research Institute of the Department of Medicine at New York Medical College—are the chips that make this cardiac researcher so successful. The claim comes from none other than Dr. Anversa, professor of medicine and director of the institute, as he talks about Jan Kajstura, Ph.D., a cell biologist, and Annarosa Leri, M.D., a molecular biologist. They have been with their mentor longer than the rest of the 22-person lab, and that goes for Sundays, holidays and weeknights into the early morning hours. Dr. Anversa is candid in his praise:

"What's happening in my lab is a miracle. I would be dead without Jan and Annarosa. Because of them I've been able to introduce several new approaches for the study of the heart. Now they have their own laboratories. Do you think I can walk into their labs? They would throw me out!"

Here is their side of the story.



ABOVE: Jan Kajstura, Ph.D., associate professor of medicine, has assisted Piero Anversa, M.D., since 1992, longer than anyone in the three laboratories that constitute the Cardiovascular Research Institute. The Polish-born cell biologist has already "identified some mechanisms responsible for the malfunction of stem cells in the aging heart." His NIH grant focuses on the diabetic heart.

Working with a genius isn't easy. Piero Anversa, M.D., has been known to lose his temper and the intensity is sometimes difficult to bear. But in spite of their training in cell and molecular biology, which is the vehicle today that moves research forward, Drs. Leri and Kajstura know very well who is teaching whom. And with such fierce loyalty they wouldn't have it any other way.

Dr. Kajstura came first, arriving with his wife and children in 1992. "I was sick and tired of what was going on in science in Poland," he begins. "I was looking for

ABOVE: Annarosa Leri, M.D., associate professor of medicine, arrived in 1996 from Italy with the intention of staying a year or two. Now she doubts she will return because "no scientists in Europe are doing similar work" to theirs on adult cardiac stem cells. Her NIH grant is for the study of myocyte stem cells in the mammalian heart, research fundamental to proving the heart can heal itself.

anything in the States when a friend of mine told me about Dr. Anversa's work. I didn't even know where Valhalla was."

Born in Pszczyna, Poland, Dr. Kajstura received a master's degree in cell biology and a Ph.D. in molecular biology from Jagiellonian University. "It was founded in 1364," he says proudly. "Copernicus, the Pope and I are all graduates of Jagiellonian University." Dr. Kajstura held several faculty positions there before and after he spent one year away as a von Humboldt Research Fellow studying mouse fibroblasts at the University of Frankfurt in Germany. He is presently an associate professor of medicine and the principal investigator of a four-year NIH grant entitled "IGF and the Diabetic Heart;" he is co-principal investigator on five other NIH grants.

The "wave of Italians," smiles Dr. Kajstura, started with Annarosa Leri, M.D., associate professor of medicine. "When I came there were no Italians and now there are 11 Italians in three labs. The original lab consisted of 7 M.D.s or Ph.D.s and now there are 22 and the labs have tripled in size." Dr. Leri arrived in 1996. She and Dr. Anversa both were graduated from the University of Parma Medical School. Dr. Leri did a residency in dermatology from Parma's School of Dermatology, a specialty she taught and practiced for seven years. But something was missing, and she discussed her restlessness with the chairman of the department who just happened to be a close friend of Dr. Anversa's.

"The original idea was to come for a limited period of time, learn techniques of apoptosis and go back to Parma," she recalls. "After two years I wanted to go back, but I didn't feel independent enough to run a research lab, which I had never worked in before. I didn't have enough experience dealing with the other scientists working with me. As another year passed I became stronger and stronger and I began to think of not going back, and now, I believe I could not go back even though I have family there. I talk to my sister and my parents every day on the phone ...

"It's not because of the lifestyle—I actually prefer the European lifestyle. There are good scientists in Europe, but none doing similar work to ours. The best work there is very slow and here it is frantic! In the last three or four years especially, I think we have made important discoveries that could have important clinical applications. This is what I like about the lab. I feel this is the right job for me." Dr. Leri's four-year NIH grant is entitled "Myocyte Stem Cells in the Mammalian Heart."

One of the first conversations Dr. Kajstura recalls having had with his mentor was to make it clear "I'm not working all weekend. He didn't react at all, but by his example and my interest in what was going on, I fell into line." So Dr. Kajstura works every week day at least 12 hours, every Saturday and some Sundays, "depending on the season and whether we are preparing for grants or meetings."

In his 11 years at Valhalla, things have changed with the exception of one constant. Dr. Kajstura calls it "an aggressiveness for new things. When Dr. Anversa is working on something, he is 100 percent focused on that and he involves himself completely. That hasn't changed."

Dr. Leri's take on the progression of events is more circumstantial: "The lab has been organized. Jan and I work with the post-docs and follow their experi-

ments. I am very much involved in the organization of a project, and when enough data has accumulated, we meet with Dr. Anversa...Before I did mostly bench work, but now I'm at the computer—writing papers and reviewing grant applications. But I have to emphasize one thing. No experiment is performed without thinking about the patient, and that is unusual. Maybe it's because Dr. Anversa is an M.D."

The entire Anversa laboratory is working on cardiac stem cells. Dr. Kajstura is looking for "the mechanism responsible for the fact that stem cells do not always do what they are supposed to do, such as in apoptosis, cell death, and the inhibition of cell proliferation. This is due to the genetic background being influenced by the environment, and it is the basis of heart disease. I have identified some mechanisms responsible for the malfunction of stem cells in the aging heart. There is an imbalance of growth factors, like IGF-1, and their receptors," he says.

Dr. Leri is investigating "the spatial organization of stem cells in the heart. We've found they are in clusters and they speak to each other. I want to find out how they talk and how they differentiate—by secreting proteins or by contact. I like to work with cells. They have a consciousness, like human beings." Perhaps that helps explain why she is the mother hen in the organization. "They all come to me with their troubles. It happened at Parma, too. It must be part of my personality. I like having a personal relationship but you can't get too close if you're a supervisor," she says.

The few hours Jan Kajstura has outside the lab are spent listening to classical music and roller-blading on a bike path in Millwood. His parents have remained in Poland, where he calls them every Sunday for 20 minutes. They have come to visit and the Kajstura family has been back twice. Jan met his wife when she was his cell biology student at Jagiellonian University. In his measured way of speaking in an exceedingly quiet voice, he surprises with "If it had been here I could have been fired!" Maggie Kajstura works in a clinical pathology laboratory at Westchester Medical Center as a medical specialist in flow cytometry and tissue typing related to organ transplantation.

Annarosa Leri, who is single, recently moved to a more spacious apartment where she reads novels "mostly by women because I feel psychologically involved," she admits. She enjoys going to plays and movies and loves the beach, but most of all, is devoted to writing "about my personal life. It's not a diary," she says, "it about my passions, feelings and emotions. And, it's about the people who have made an impact on my life. I might even publish it someday."

With a thoughtful and subdued persona, Dr. Kajstura is unwilling to predict the future.

Dr. Leri jumps right in. "We're facing a big expansion," she reveals. "More people — six, seven or eight, I don't know—are coming by the end of the year. There is always something new because Dr. Anversa is never afraid of change in the direction of the research."

"He can make huge changes overnight," Dr. Kajstura concurs, "and that is the reason for his success." To be sure, there are two more reasons—Jan Kajstura and Annarosa Leri themselves—who together with Piero Anversa are fighting heart failure like the three musketeers. There is no competition among them nor with the other members of the cardiovascular research team. And that is not subject to change.

APPOINTMENTS AND PROMOTIONS

The Board of Trustees has approved the following academic appointments and promotions for members of the faculty:

Debra E. Bessen, Ph.D.
Associate Professor of Microbiology and Immunology

Robert E. Feinstein, M.D.
Professor of Clinical Psychiatry and Behavioral Sciences

Nicholas R. Ferreri, Ph.D.
Professor of Pharmacology

Sergio G. Golombek, M.D.
Associate Professor of Pediatrics

Flemming Graae, M.D.
Associate Professor of Clinical Psychiatry and Behavioral Sciences

Associate Professor of Clinical Pediatrics (secondary)

Sensuke Konno, Ph.D.
Associate Professor of Urology

William J. Levin, M.D.
Associate Professor of Clinical Emergency Medicine

Norman Levine, Ph.D.
Professor of Physiology

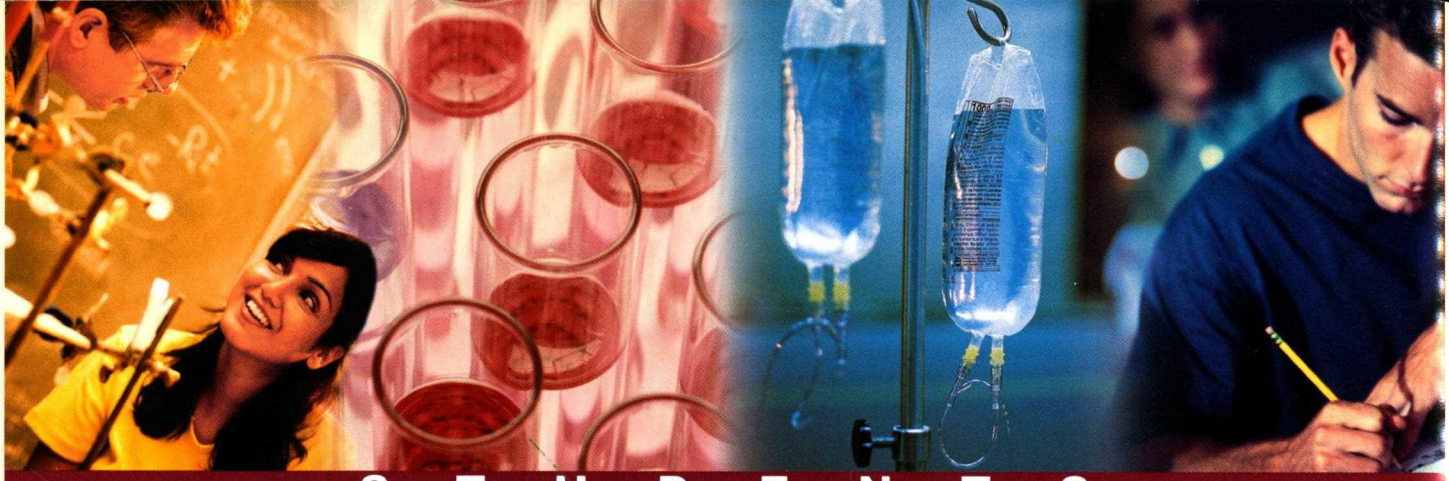
Fabio A. Recchia, M.D., Ph.D.
Associate Professor of Physiology

Dhanonjoy C. Saha, D.V.M., Ph.D.
Clinical Associate Professor of Medicine

Harvey Stabinsky, M.D., J.D.
Associate Professor of Clinical Psychiatry and Behavioral Sciences

Wendy L. Thompson, M.D.
Clinical Professor of Psychiatry and Behavioral Sciences

Paul K. Woolf, M.D.
Associate Professor of Pediatrics



SUMMER PURSUITS STEER STUDENTS IN THE RIGHT DIRECTION

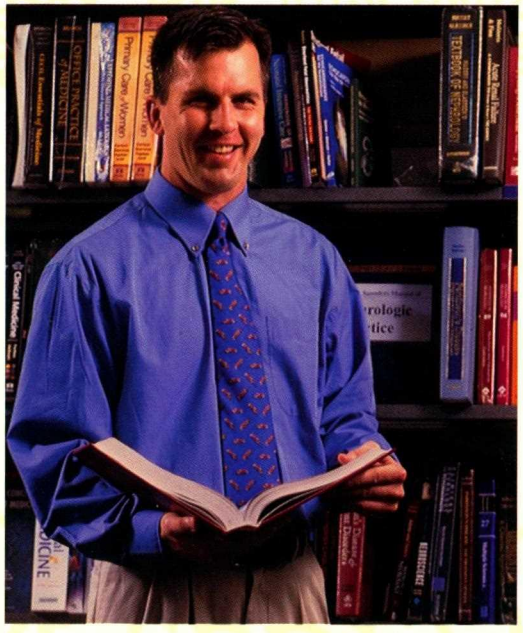
What these second-years did on their summer vacations confirmed their choice of specialties—radiation oncology and pathology/forensic pathology—early in the game.

By Donna E. Moriarty

Second-year medical student **Nathan Comsia '06** first got the idea to go into medicine when he was in elementary school, watching a PBS documentary about surgery. "The minute I saw that beating heart I was fascinated. What drives the heart to function this way? It left me in awe," he says. The spark fueled his interest in the biological sciences and he went on to earn his B.A. in psychology with a biological emphasis from the University of Oregon.

Born in the Bronx but raised in the Pacific Northwest, Nathan says he was a good student who nonetheless recognized his need for further preparation before applying to medical school. His R.N. mother, formerly a physician's assistant who had worked at the University of Washington in Seattle, started asking around for a clinical researcher who could use a bright assistant for the summer. Nathan ended up going to work for a brilliant whiz-kid of a radiation oncologist named Wui-Jin Koh, M.D. Dr. Koh had entered medical school at age 18, graduated at 22 and gone on to become a radiation oncologist specializing in gynecological oncology. "He's like Doogie Howser, M.D.," Nathan asserts. "He's very bright and compassionate. He became my mentor, both during the time I was working with him and afterward, during my preparations to apply to medical school. I don't know how I got so lucky."

Working under Dr. Koh's guidance, Nathan reviewed and analyzed charts, looking for



Nathan Comsia '06

treatment summaries, side effects, demographics and other data that would create a pool of patients from which Dr. Koh could select his research subjects. He spent several rewarding summers there between semesters as an undergraduate, and was gratified by his mentor naming him co-author on several studies.

Nathan wrapped up his pre-med studies at the University of Pennsylvania, and at last was accepted to New York Medical College as a member of the Class of 2006. Early on, when the subject of medical student research opportunities came up, he immediately thought of going back to Washington to work with his former mentor. Dr. Koh was only too happy to have him back. He managed to secure enough grant money to support a summer fellowship and put Nathan to work on a study of endometrial cancer. This time, in addition to the chart reviews, he was allowed to shadow the radiation oncologists as they treated their patients.

"I got to see some cutting-edge technology," Nathan says, "and I saw all manner of cancers, at all stages: endometrial, rectal, melanoma, astrocytoma—much more than I would be exposed to as a first-year medical student." He adds, "The ways to minimize and control the spread of cancer are many and they are highly sophisticated. This is why I'm so fascinated—radiation oncology integrates anatomy, radiology and oncology with nuclear physics and math. And it provides care and support to patients as they battle cancer. It has all the elements that interest me most."

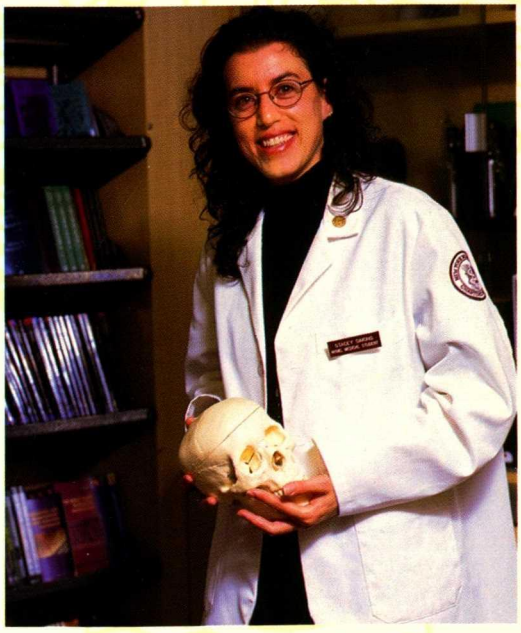
Nathan feels he has returned for his second year of medical school with a richer perspective on his studies, a greater awareness of and appreciation for disease processes—"pathology conferences taught me how the disease presents, and what kind of damage cancer can do to the body"—and a deeper appreciation for the power of a compassionate doctor. "Dr. Koh interacted with his patients when they were distressed. He found ways to be encouraging without giving them false hope. He always tried to stress that things weren't as bleak as they might seem," says Nathan. "He's definitely the kind of physician I want to be."

He also finds that working with patients has rekindled his enthusiasm for the long haul toward becoming a doctor. Excited by the synergy he witnessed between doctor and patient, Nathan says, "I'm honored to be entering the profession." Although he isn't sure he wants to do more clinical research, he feels he has gained immeasurably from what he already has done. "I saw how hard it is trying to balance being a good clinician and a good researcher—and to add the demands of a family, too." These are goals that Nathan, from a close-knit family, has in the back of his mind as well. "I want to be the best doctor I can, so that may mean I focus on the clinical aspect for now."

From the time she was in high school, when she was an avid fan of the television series "Quincy M.E." **Stacey Simmons '06** knew she wanted to be a medical examiner. Something about the mystery of death that could be unlocked with careful observation appealed to her on a basic level, as did the potential for providing an underappreciated service to the community. With her good grades in high school biology, it seems a wonder that she didn't start on the path to medical school by taking pre-med courses in college. "I lacked confidence," she explains. "I was very attracted to science, but I was also good at graphic arts." So instead of pre-med, she went to art school. Even before graduation she started getting jobs for graphic design projects. "The course work [at art school] really didn't challenge me, and that should have been a clue," she says. She quit after three years and, eager to ply her trade, took job after job, never quite feeling satisfied. Yet the more years she spent pursuing a graphic arts career, the less likely it seemed that her life would ever change course.

One day, Stacey says, she just woke up and thought, it's now or never. She started by enrolling at John Jay College of Criminal Justice in the forensic science program. From there she was accepted into the CUNY baccalaureate program, which enabled her to perform undergraduate research in molecular microbiology at Hunter College. She finished with a degree in biochemistry in 2002. During this time she relentlessly pursued her goal by volunteering at St. Luke's-Roosevelt Hospital Center, where she shadowed doctors and residents in the department of pathology. "I had to know if I had the right temperament to witness and conduct autopsies," she says. "And I learned that I do." It was during this period that she was at last accepted to medical school—and the dream was within her grasp.

In January of her first year at New York Medical College, Stacey approached Reinhard Zachrau, M.D., professor of pathology, who introduced her to Millard Hyland, M.D., the chief medical examiner of Westchester County. Dr. Hyland offered her a summer internship. Before that could commence, Stacey learned of the Summer Research and Fellowship Program for medical students. Within weeks of completing her application, the five-week stipend was hers. Reporting to Dr. Hyland, Stacey began attending morning meetings with the staff as they discussed each day's new and ongoing cases. She began observing autopsies—approximately 35 of them by the end of her stint—which gave her the opportunity to observe both natural and traumatic pathologies and taught her volumes in clinical and forensic pathology. "The MEs fostered a learning environment, asking questions about my observations as they performed autopsies, questioning me on what I thought the causes of death were and on what I based each finding." They also gave her assignments, including independent reading on the forensic and natural aspects of injury, for example. She might give a brief summary of the case the next day, or they might ask her to conduct a literature search for cases with similar findings.



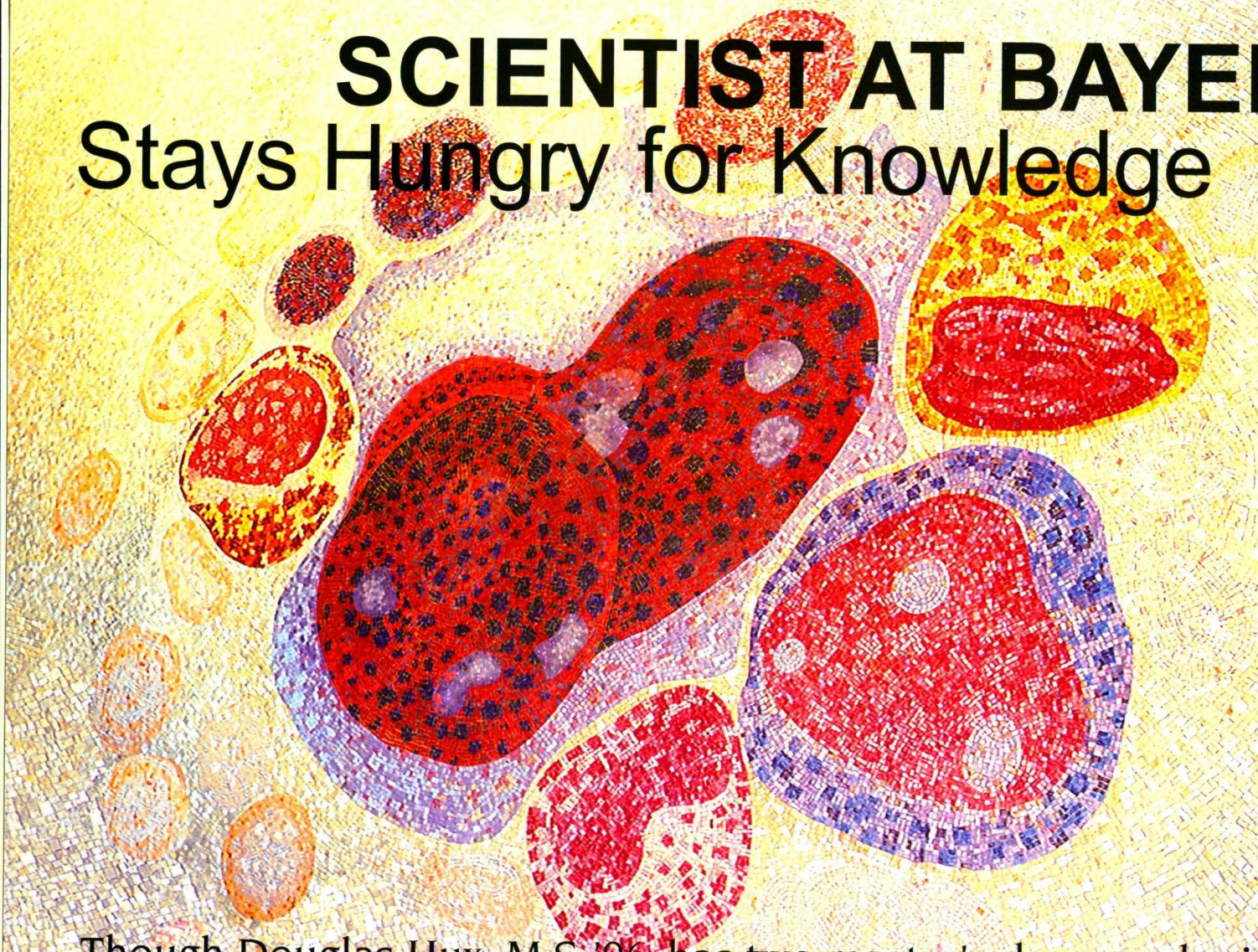
Stacey Simmons '06

Stacey also accompanied investigators on their trips to death scenes to provide information to the MEs about the circumstances of the death—standard operating procedure for any unattended death, sudden death below a certain age, and death due to unnatural causes. Here she saw what she describes as "some of the public service aspects of death investigation." She learned how the investigators assess the environment and the condition of the deceased, take photos and bring the body to the ME's office. "It gave me the chance to interact with police and fire personnel, and to talk with the families of the deceased. You don't normally think of a medical examiner as needing the same qualities of compassion as, say, a family physician, but they are very closely related," she says.

Stacey says she found her summer in the ME's office exhilarating and satisfying. It has only strengthened her resolve in facing the climb she still has ahead of her: two and a half more years of medical school, four years in a pathology residency, and a yearlong forensic pathology fellowship. But then, after a 15-year career detour that might have derailed someone less determined, Stacey will at last achieve her goal.

ALUMNI

SCIENTIST AT BAYER Stays Hungry for Knowledge



Though Douglas Hux, M.S. '96, has two master's degrees, he is eyeing courses in immunology and bioinformatics "just for fun."

By L.A. McKeown

Ask Douglas Hux, M.S. '96, why he chose to return to school for a second master's degree, years after he had established himself in a fulfilling career. He will tell you simply, "Because it just seemed [like] fun." For many of us, taking night classes in physiology, biochemistry and pathology after a long day on the job could hardly be considered "fun," but Hux's curious nature and lifetime love of learning drove him back to the books at an age when others wouldn't have bothered.

While working on his master of science degree in basic medical sciences, an interdisciplinary program at New York Medical College, he wrote his second thesis on what is now an area of avid research in cardiac medicine, brain natriuretic peptide (BNP). Essentially, BNP is a hormone that is released by the heart in response to some of the physical changes that occur in heart failure. They also can be measured in an emergency room to help physicians distinguish heart failure from other conditions with similar signs and symptoms. "BNP acts both as a vasodilator and as a diuretic to reduce the workload on the heart, which is a good thing for your body to do to itself if you're suffering from heart failure," Hux explains.

Cutting edge

It comes as no surprise that he was interested in cutting-edge technology nearly 20 years earlier when he wrote his first thesis to earn a master of science degree in mechanical engineering at Virginia Polytechnic Institute. The topic then was the design and implementation of a computer-based system to operate a pneumatic blood pump. It was to be used in long-term cardiopulmonary bypass in newborn infants with a certain type of respiratory distress.

Hux's project used one of the first types of microprocessors; newer versions of these tiny chips can be found embedded in personal computers and almost every other electronic device.

In the years between the two master's degrees, Hux honed his skills in an unusual and evolving field: writing software programs that control the precise mechanisms of clinical laboratory instruments. "I didn't start out explicitly deciding to work in this particular field but I've always had an interest in biology. My grandfather was an engineer and that field has fascinated me as well," Hux says. "Basically, it is the interplay of engineering and biology that has always interested me." As evidence, he points to his grandfather's slide rule from the 1920s that still has a place in his office —displayed on his desk.

Obviously, that interest has been long-lived. In September, he celebrated his 25th anniversary as an employee of Bayer HealthCare in Tarrytown, N.Y., where he is a senior research and development engineer. Two weeks later he celebrated his 50th birthday. Looking back, Hux believes he was in the right place at the right time when the company recruited him out of graduate school. His job involves helping to design and implement the embedded software that controls the operation of clinical laboratory instruments like serum analyzers, blood cell counters and urine chemistry machines. "I write the software that actually controls the low-level operation of an instrument such as moving probes, activating pumps, and coordinating the interplay of all of these things," he explains.

Instruments talk

There is a series of events that occur when a physician orders a blood or urine test. Hux is among the group of specialists with intimate knowledge of the complex "chatter" that goes on within the mechanisms of the instruments themselves. The chatter is the exchange of information that helps it control and coordinate the individual mechanical, electrical, hydraulic and optical components. They can actually aspirate a blood sample, mix it with the right reagents at the right time, and detect changes in the mixture that correlate with the concentration in the blood sample of whatever substance is being measured. The test results are then displayed on a monitor or sent to a central computer for medical personnel to read.

ABOVE: Douglas Hux, M.S. '96, poses in the lobby of Bayer HealthCare in Tarrytown, N.Y., where he recently celebrated 25 years of employment. The lobby is graced with a colorful mosaic (page at left), which may be stoking his desire to come back to the College for courses in immunology and bioinformatics.

"I think my basic science and engineering backgrounds help me to understand the different aspects of what makes these instruments work," Hux says. "The basic medical science training also provides a perspective on why our work is important and why it is important to do it well." What Hux enjoys most about his job above all, is the chance to do a variety of things every day and to be challenged with the occasional oddball assignment.

Big in Japan

"The oddest assignment I ever had was to help adapt one of our clinical instruments for the Japanese market," he says. "It involved writing software to enable the instrument to display its operational menus and results in Japanese language characters instead of English language characters. I don't speak Japanese, but I still had to come up with a way to do the job. I think that is a good illustration of how my job is so varied. It can sometimes be a lot of fun to do different things like that."

If this man considers complicated night courses and assignments in foreign languages as "fun," it makes you wonder what he does for real fun. The answer, like the man himself, is both complex and straightforward. In his spare time, Hux finds good company with longtime girlfriend Marlene and their Jack Russell terrier named Moose. Recently he completed training to become an emergency medical technician. In the past he has taught performance driving at local racetracks, which incorporates elements of engineering and physics. He is also interested in woodworking and cabinetmaking. Hux is considering further studies in immunology and bioinformatics, and intends to improve his cooking skills. Do these incorporate the principles of engineering he finds so fascinating?

"Everything has some element of engineering to it," Hux says with a laugh. *"Everything."*

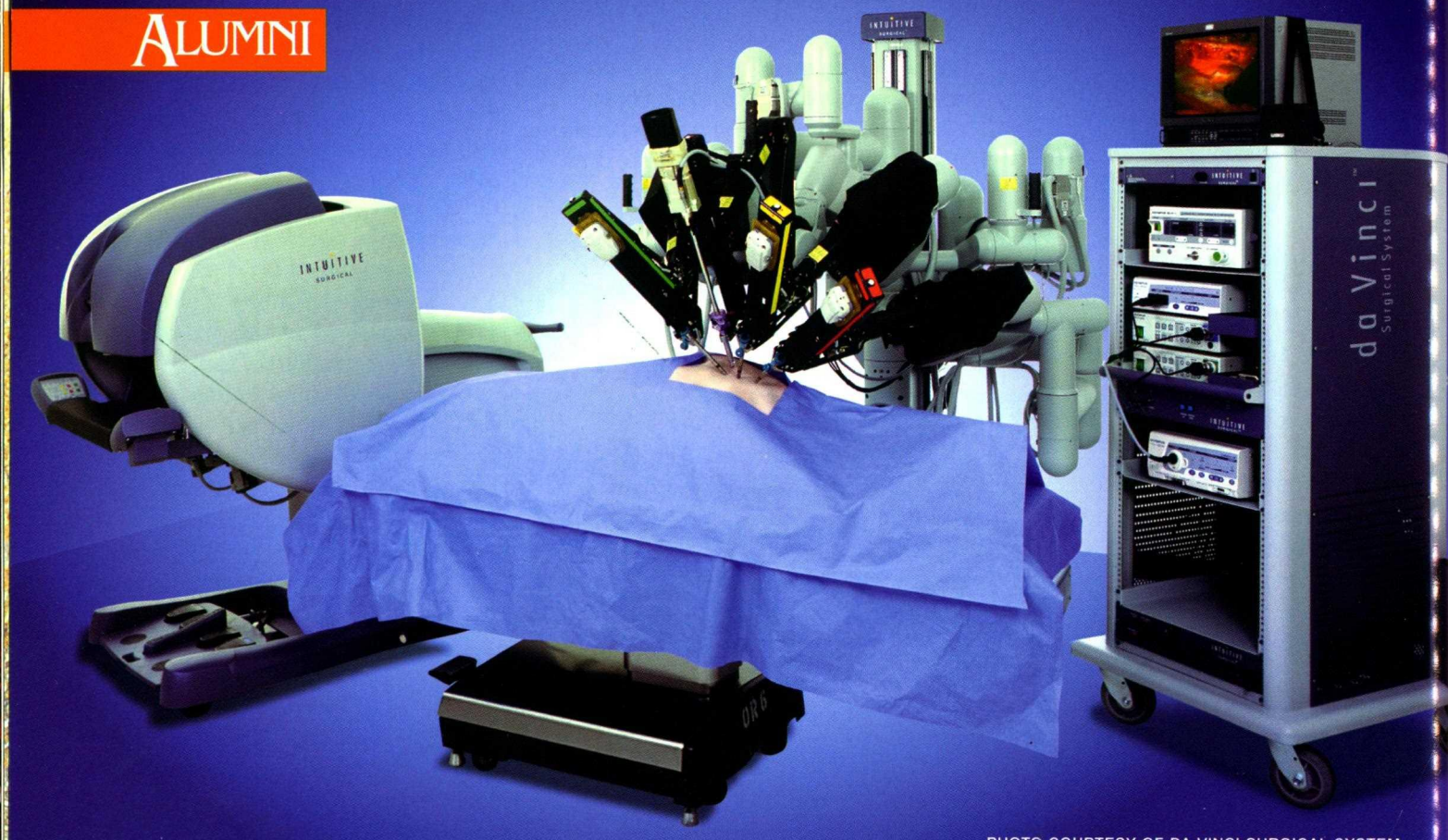


PHOTO COURTESY OF DA VINCI SURGICAL SYSTEM

School of Medicine Alum Is a ROBODOC

Gerald Matthews, M.D. '86, calls on a 7-foot robot to assist in laparoscopic surgery.

By L.A. McKeown

Gerald Matthews, M.D. '86, is your average soccer dad. He's also one of only a few dozen surgeons in the United States who specialize in reversing male infertility through microsurgery, enabling patients who may have given up on having a child of their own to do so.

After graduating from Emory University in Atlanta in 1979, Dr. Matthews, who grew up in the New York area, decided to return to familiar surroundings. He chose New York Medical College because of its reputation and diversity. Looking back on his medical school days, Dr. Matthews says he remembers his clinical rotations most fondly, specifically his surgical rotation.

"I was fascinated with the ability to decisively act at one stage in the course of a disease process and improve clinical outlook with a procedure," he says. "Not only did I find that my interests were surgical, but also my time with the urology service was when I decided what I wanted to do." Dr. Matthews credits the late Joseph Addonizio, M.D., then professor and chairman of the Department of Urology, with influencing his decision.

Urology beckons

"What crystallized things for me was that urology seemed to be such a multifaceted specialty—surgical skills were required, endoscopic skills were required, a strong textbook knowledge was required. It really allowed me to practice what I felt was a broad scope of medicine," he says.

Shortly thereafter, Dr. Matthews became drawn to the treatment of male infertility, intrigued by the microsurgical techniques that were being developed and perfected. In 1993 he secured a prestigious fellowship in male reproductive

medicine and microsurgery at what was then called The New York Hospital-Cornell Medical Center in New York City. Two years later he returned to Valhalla as assistant professor of urology and director of male reproductive medicine and sexual dysfunction. He became chief of urology at Metropolitan Hospital Center in 2000 and chief of urology at Our Lady of Mercy Medical Center in the Bronx in the summer of 2003.

Now Dr. Matthews belongs to a very small fraternity of urologists. "There are probably 25 to 30 physicians in the country who specialize in these microsurgical techniques for male infertility," he says. "We're talking about very complicated surgeries to reconstruct the male reproductive tract." While these are not common place procedures, they are not as rare as some might think. He estimates that a male factor is identified in up to 50 percent of all infertility cases.

Robotic repair

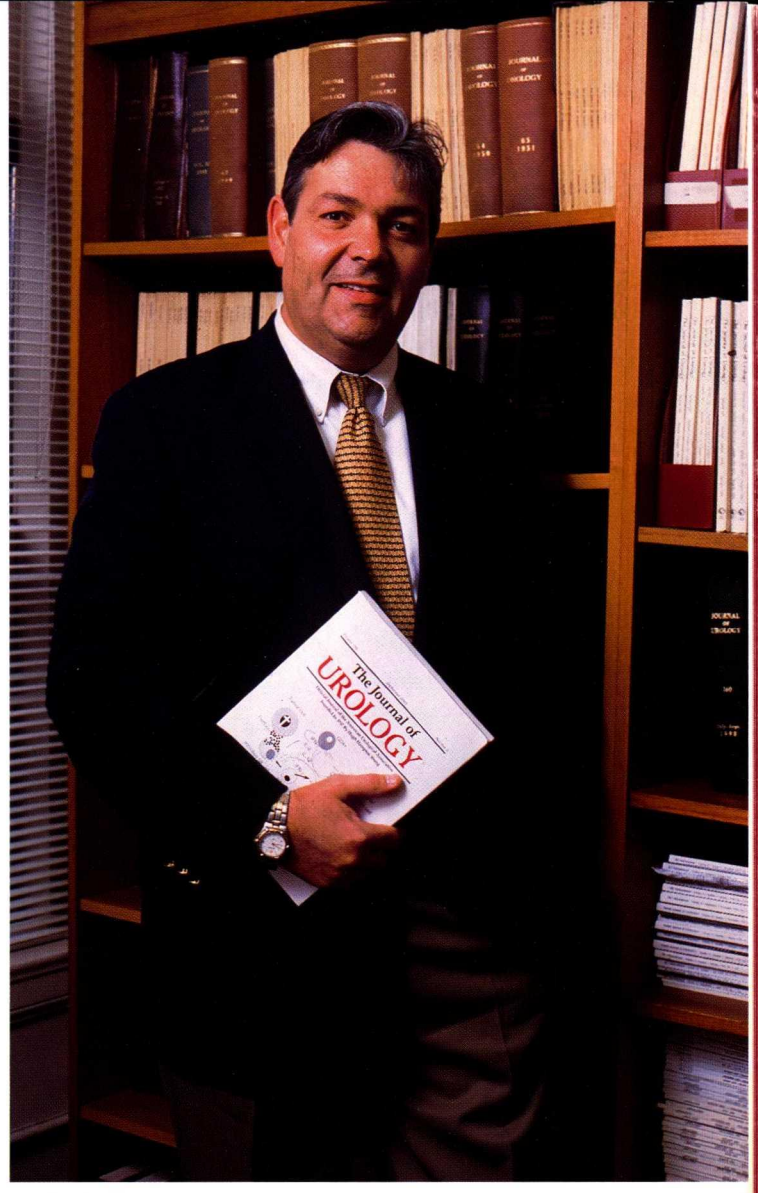
The complex techniques that drew him to a career in surgery in the first place have presented Dr. Matthews with his present challenge of repairing and reconstructing the male reproductive tract. A case in point is hernia surgery, which is now performed successfully via laparoscopic surgery rather than an open surgical procedure. However, a little-known pitfall of the laparoscopic procedure is the potential for injury to the vas deferens, the narrow tube that carries sperm from the testis to the prostate and through the penis. It turns out there is a trade-off for not having to perform open surgery; the tight space within the abdominal cavity where the laparoscopic instruments are placed increases the chance that a surgeon could inadvertently cut the vas deferens and not even know it. The result: an accidental vasectomy.

"Your first thought as a surgeon is, if it were laparoscopy that created this problem, then let's do something laparoscopically to help undo what was done," Dr. Matthews says. "Unfortunately, the area in the pelvis where the vas deferens is located is fairly small and not readily accessible with conventional laparoscopic techniques."

But in June 2003, help arrived in an unlikely form. Dr. Matthews enlisted the services of a 7-foot robot to reverse an accidental vasectomy. It was the first time that the robot, known formally as the da Vinci Surgical System, had been used to help restore male fertility. Now it is mainly used for suturing inside the body in a variety of surgical situations.

Surgical slip

One of his first cases was puzzling at first glance; the patient was married and in his late thirties, and had already fathered a child. When he and his wife began having trouble conceiving, they consulted a urologist and discovered his sperm count was zero—perplexing and worrisome news for a man who already had a child and should have at least had registered some sort of sperm count, however low.



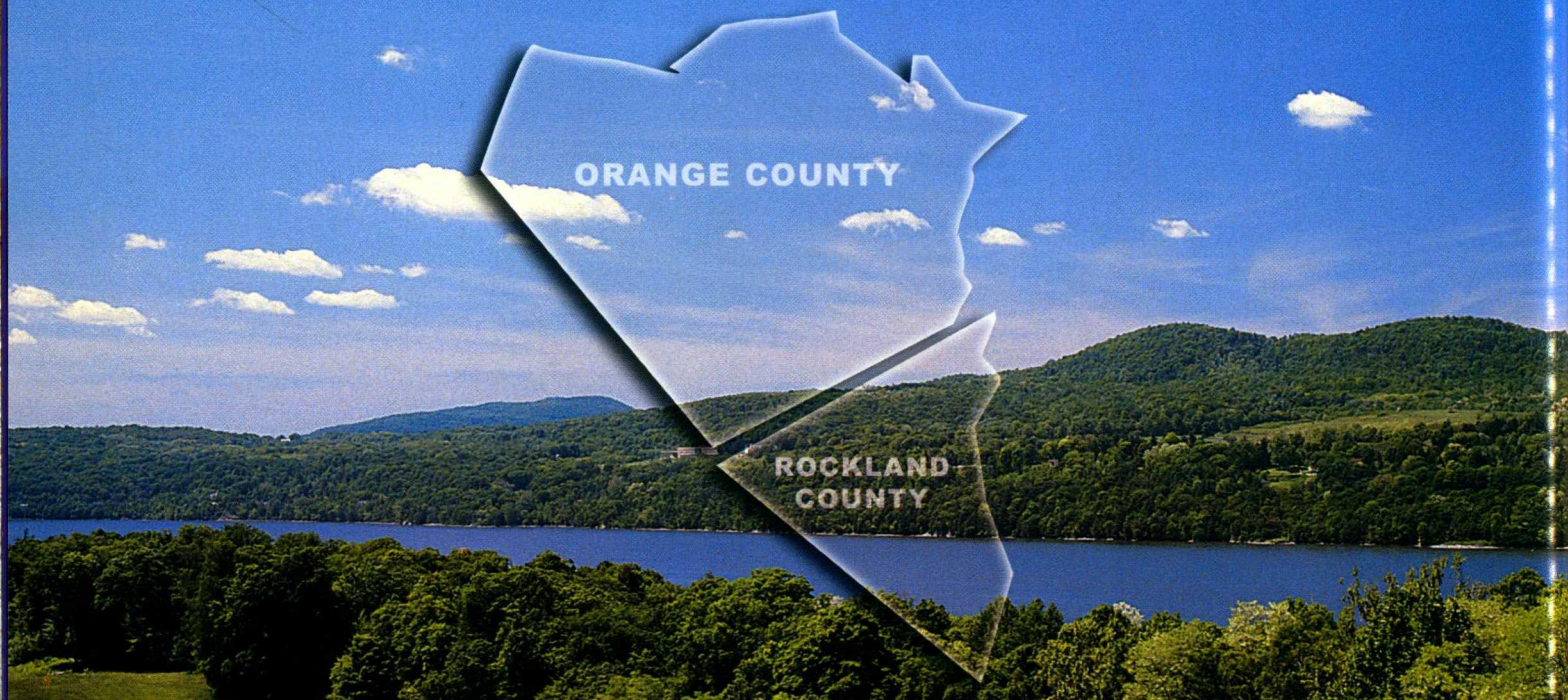
ABOVE: Only about 30 urologists in the country are able to treat complex cases where use of a robot is helpful, according to Gerald Matthews, M.D. '86. He is chief of urology at two College affiliates—Metropolitan Hospital Center in Manhattan and Our Lady of Mercy Medical Center in the Bronx.

"The one thing that stood out when he came to us was that he had undergone hernia surgery since his child was born. We were able to identify that, in fact, there had been accidental ligation of his vas deferens during the surgery," Dr. Matthews explains.

Using the da Vinci robot, Dr. Matthews and his colleague Albert Samadi, M.D., were able to perform precision microsurgery to repair the damaged structure. The difference between the robot and typical laparoscopic equipment is that the arms of the robot are fully articulated and provide a range of motion and dexterity that are impossible to match laparoscopically. Sitting at a separate console with a 3-D image of the surgical area, the surgeon controls the deft movements of the robotic arms, utilizing a minimally invasive procedure while simultaneously having access to a wider visual field that is comparable to what a surgeon would see in a traditional open procedure.

Looking back on it, Dr. Matthews is modest in describing his first robotic adventure. Dr. Matthews says he hopes to hear soon that the patient and his wife are expecting another child. As for his "assistant," Dr. Matthews says he looks foward to making use of the robot again when appropriate. He plans to publish a case history detailing the complex repair they achieved with the robot's assistance. In the meantime, to his wife Ellen and their children Maggie, Jack and Owen, he is still just another soccer dad.

TEACHING TOP DOGS New Tricks



Where do you go for an M.P.H. if you want the top job in public health? To the New York Medical College School of Public Health, of course. Two alumnae, who happen to be health commissioners of neighboring counties, exemplify the value in having an M.P.H. degree.

By Donna E. Moriarty

Joan Facelle, M.D., M.P.H. '03, Commissioner of Health for Rockland County, N.Y.

Joan Facelle, M.D., M.P.H. '03, had no idea that being a savvy multi-tasker would prepare her for her next career as Rockland County's health commissioner. But cooking on all four burners is standard operating procedure for this pediatrician, mother of three growing children and passionate defender and promoter of public health.

Since being sworn in as health commissioner in January 2001, Dr. Facelle has had to juggle every kind of health issue imaginable. About the only time to catch up with her is during lunchtime—usually a working lunch, but at least she sits down. Asked to enumerate the tasks on her desk, she ticks them off: obesity, smoking, breast cancer, Lyme disease, TB, rabies, bioterrorism threats, and the dangers of new viruses such as SARS, not to mention environmental health issues like storage tank replacement and water quality. She has regular briefings with the county executive on the issues and problems her office is handling, sits in when she can on the state health department's weekly conference call on communicable diseases, and checks in for frequent updates with the emergency preparedness director on her staff. She is also working on a slideshow for an adult immunization conference. And after all that she has to balance her office's no-fat budget.

ABOVE: Their counties may be back to back, but each of these health commissioners employs her own brand of leadership when tackling the public health challenges to be faced each day. Jean M. Hudson, M.D., M.P.H. '93, left, heads the Department of Health in Orange County, N.Y., while Joan Facelle, M.D., M.P.H. '03, is commissioner of health in neighboring Rockland County.

The buck stops

Right now Dr. Facelle is overseeing the gathering of information and documentation for a major county initiative, a community health needs assessment scheduled for next year. "There has been a lot of growth and change in the county population in terms of increasing diversity and new immigrants," Dr. Facelle says. "We need to deal proactively with the health concerns and other issues related to these populations." Being health commissioner also means prioritizing, and though she anticipates the assessment will ultimately help them define the needs of a changing county, she also knows the process will require enormous resources. A number of worthy but less pressing matters will have to move to the back burner—something no physician likes to do if she can help it, but every health commissioner understands.

> " I recognized that medicine has a lot of detective work in it. There is an element of a puzzle in diagnosis."

Dr. Facelle grew up in south central Pennsylvania. She graduated from New York University School of Medicine in1980 and finished her residency there in 1983. She and husband Thomas Facelle, M.D., joined the U.S. Air Force Reserve in North Dakota to pay off their medical school loans. In 1987 the family moved to Rockland County, where Thomas practices general surgery with Ramapo Valley Surgical Associates.

Population health

As a girl she was enamored with science, Nancy Drew mysteries and Sherlock Holmes. Dr. Facelle says, "I recognized that medicine has a lot of detective work in it. There is an element of a puzzle in diagnosis." It was her passion for problem-solving that led her to wonder whether she could apply her avocation and love of a challenge to a wider playing field—treating the health of a population instead of individuals.

From 1996 to 2001 she served as a member of the Rockland County Board of Health, a voluntary position that allowed her to see how the county's health systems are run. "You give up the one-to-one relationship, but you become a problem-solver. I made [the decision to go into public health] more out of a desire to improve peoples' access to health care," she says. She goes on to say that part of what motivated her to pursue a career in public health was the chance to influence policy, so that people of limited means could find better public clinics with convenient hours, insurance they could afford and even transportation that would not result in a whole day of lost work to make a doctor's appointment.

More than content with her current job, which gives her the satisfaction of accomplishing much yet leaving her time to spend with her family, Dr. Facelle confesses, "I'm happy where I am right now. I told my family that I'm done with [earning] extra degrees for the time being."

Jean M. Hudson, M.D., M.P.H. '93, Commissioner of Health, Orange County, N.Y.

Although Jean Hudson, M.D., M.P.H. '93, has been Orange County's health commissioner only since early September, the diminutive, British-born extrovert claims she has spent only about half her time in the office. She likes to be out and about in the county, meeting with community leaders and visiting organizations such as Healthy Orange County, a program set up to improve access to health information and health care for low income families within her jurisdiction. During one of her first weeks in office she toured several area hospitals and paid visits to the Orange County Medical Society, the Republican Ladies Luncheon and the Orange-Ulster Board of Cooperative Educational Services (BOCES). "I'm a hands-on person. I like to get out into the community, meeting individuals and visiting organizations to see how we can work together," she says.

Despite being relatively new to the job, Dr. Hudson has a major project on the horizon. In 2004, Orange County's

health department—along with those of neighboring counties—must produce a comprehensive health assessment that is required every five years. The appraisal focuses on current and future concerns of the county, determining how well they are being addressed and offering solutions for areas in need of improvement. She and her counterparts, like Dr. Facelle, are bracing themselves for a significant workload as they prepare for the assessment, but one that will be more than worthwhile in terms of providing an up-to-date picture of the county's population and its changing health needs.

Family needs

And that's not the only project on her plate aimed toward addressing the challenges of a growing county. The commissioner has a special interest in addressing the needs of young families, although her "topics to tackle" list also includes obesity, heart disease and environmental problems found in her county and, unfortunately, all over America.

Jean Hudson was born in Essex, England, and entered medical school at 18. "This may sound precocious, but it's normal in Britain to start on the medical school track right after high school," she explains. She received her medical degree from Middlesex Hospital Medical Center in London in 1972. After six years of doing everything from general surgery to emergency medicine to pediatrics to family practice in London and Surrey, she and her husband Ron, now a risk management specialist with the state, moved to New York when he was offered a job there.

When one door opens

Dr. Hudson completed her residency in family medicine at SUNY Stony Brook in 1983, and the next year she began working as a family physician at the Open Door Family Medical Center in Ossining, N.Y. It was there she discovered her passion for public health. Throughout her five year tenure, she was urged to get an M.P.H. by several people, including the center's medical director and fellow Open Door physician Cathey E. Falvo, M.D., M.P.H., now program director for international and public health at the School of Public Health. Eventually Dr. Hudson conceded they were right. By the time she was made medical director, she had developed a knack for the administrative side of running a community health center. "I was surprised by how much I enjoyed the planning side," she said. "I had two young kids, I had done general practice medicine for 20 years, and I wanted to move further up the decision tree."

> "I am a hands-on person. I like to get into the community, meeting individuals and visiting organizations to see how we can work together."

So she enrolled in the College M.P.H. program, graduating in 1993. She continued to build experience in the public health arena by directing women's and youth services at the Westchester County Department of Health, which led to an appointment as deputy commissioner of community health services in 1996. As deputy commissioner she was, much like the first runner-up in the Miss America pageant, prepared to step in if at any time the health commissioner could not carry out her duties. Instead, when the former Orange County health commissioner, Maxey J. Smith, announced her retirement, she gave Dr. Hudson a heads-up and encouraged her to throw her hat in the ring. In due time Dr. Hudson was tapped for the post. "I got the call from County Executive [Edward A.] Diana while I was in my car, and I had to pull over to answer my cell phone," she relates. "So I accepted the job in a layby next to a hotdog stand! We had to wait until the legislators voted to be sure, but I was thrilled. This is the ultimate job, as far as I'm concerned."

Dr. Hudson says that while she plans to continue addressing her predecessor's initiatives, she is reluctant to mention any specific plans until she's discussed them with her team. Her modesty belies the current list of health department activities and services, which include public health nursing, long-term care in the home for their homebound patients, clinics offering diagnosis and treatment for tuberculosis, HIV and other sexually transmitted diseases; general pediatric clinics emphasizing preventive care, communicable disease control, immunizations, sanitary inspections, engineering reviews, screening and monitoring services for at-risk infants and toddlers, early intervention and preschool special education services for children, community health outreach, injury prevention, health education, emergency medical services coordination, epidemiologic analysis, nutrition services, WIC (Women, Infant and Children's nutrition program), maternal support for newborn care; and provision of financial support for medical care of physically handicapped children and adult polio survivors.

Visible means of support

Both commissioners say they are indebted to New York Medical College for providing their careers with a crucial foundation in public health in the form of an M.P.H. degree. When the school received official word of its accreditation in late October, these words were uttered by the late Sheila M. Smythe, who was executive vice president and dean of the School of Public Health until her death in early November: "This new designation raises the bar for the university and recognizes our school's expanding mission to serve the needs and collaborate with the communities we served throughout the Hudson Valley. As the only school of public health in the Hudson Valley, we have a responsibility for the educational leadership in our region. It is an exciting time for us and for the field of public health in this country."

Perhaps that is how a new era in healthier communities and improved services will be ushered in—one committed, well-educated public health activist at a time.

Additional reporting for this article was contributed by Amy Wu.

ANNUAL Founder's Dinner Honors Community Leaders

At its annual Founder's Dinner, held September 20 in Rye Brook, N.Y., New York Medical College recognized three individuals and a local newspaper for their leadership and commitment to community service. Held at the Rye Town Hilton on a warm summer evening, the black-tie dinner began with a lavish cocktail reception in the hotel's outdoor courtyard. Dinner and dancing took place in one of its grand ballrooms.

Taking a break from Founder's Dinner festivities are, from left, Gerald Rosenthal, Ronald F. Poe, Maureen Roxe, Michael Antonelle, M.D. '62, Felicien M. Steichen, M.D., Rev. Msgr. Harry C. Barrett, D.Min., M.P.H., Louis E. Fierro, M.D. '60, and Col. Melvin Freeman.

The College awarded its highest honor, the William Cullen Bryant Medal, to Kenneth E. Raske, president of the Greater New York Hospital Association (GNYHA) for his advocacy efforts in Washington, Albany and the New York metropolitan area. Faculty members Felicien M. Steichen, M.D., and James T. Mazzara, M.D. '63, received the Distinguished Service Awards. *The Journal News*, the region's largest daily newspaper, received the Jackson E. Spears Community Service Award.

This year's Founder's Dinner honorees are, from left, Kenneth E. Raske, Felicien M. Steichen, M.D., James T. Mazzara, M.D. '63, and *The Journal News*, represented by John Tuller.

Rev. Msgr. Harry C. Barrett, D.Min., M.P.H., president and chief executive officer, applauded the evening's honorees. "Their commitment to health care and the well-being of our communities should serve as a model in our efforts to sustain our education, research and service activities in the future," he said. Msgr. Barrett also thanked the individuals and organizations sponsoring the dinner, including GNYHA and GNYHA Ventures, Fleet Bank, Col. Melvin Freeman and Mrs. Helen Freeman, Cardinal Health and P.M. Construction Services.

As the dinner began, guests listened to the music of The A Band and watched a short promotional video about the College, featuring interviews with faculty and students, interspersed with historical footage of the old campus in New York City and the Valhalla campus today. "The people in the video represent our very best at New York Medical College," Msgr. Barrett said. "They also are setting the bar for the excellence we will achieve in our future."

Ronald F. Poe, chairman of the Board of Trustees, presented the first award of the evening to GNYHA president Kenneth E. Raske. Describing him as a "guardian of healthcare institutions" and a "devoted steward of fiscal viability," Mr. Poe commended him for improving healthcare access, quality and cost in the metropolitan area. He called special attention to Raske's guidance in coordinating the hospital response to 9/11. In accepting the award, Raske said his goal is "making sure New York is a medical Mecca and that all people get treated the same way.

Ralph A. O'Connell, M.D., provost and dean of the

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ANNUAL Founder's Dinner
Honors Community Leaders

Ronald F. Poe, chairman of the Board of Trustees, right, presents the William Cullen Bryant Medal and framed citation to Kenneth E. Raske, president of the Greater New York Hospital Association.

School of Medicine, presented two Distinguished Service Awards. He introduced Dr. Mazzara, who is professor of clinical medicine and chief of clinical cardiology at St. Vincent's Hospital in Manhattan, as a longtime friend and colleague he met when both were interns. Dr. O'Connell praised Dr. Mazzara for building "one of the nation's most highly regarded departments during his quarter-century of distinguished service." Noticeably moved by the honor, Dr. Mazzara thanked his wife, Virginia, "who's had to put up with me for many, many years." He also thanked his mentors at St. Vincent's and NYMC, as well as Catherine S. Halkett, M.P.H. '87, vice president for university development. "I never thought 40 years ago when I was a medical student that I'd be honored at my alma mater," Dr. Mazzara said. "I'm most grateful and I'm deeply touched."

Ralph A. O'Connell, M.D., provost and dean, School of Medicine presents the Distinguished Service Award to James T. Mazzara, M.D. '63.

From left, Leonard J. Newman, M.D., professor and chairman, Department of Pediatrics; Richard K. Stone, M.D., professor of clinical pediatrics and senior associate dean; and Joseph A. San Filippo, M.D., professor of surgery and associate professor of pediatrics.

Dr. O'Connell presented the next Distinguished Service Award to Dr. Steichen, professor of surgery at the College for 25 years. He described him as a "prolific contributor to books and other publications" and noted that he was first occupant of the Steichen Chair of Surgery at the College. He also commended Dr. Steichen, who is recognized worldwide for his pioneering work in the field of minimally invasive surgery and is chief of the Institute of Minimally Invasive Surgery at Westchester Medical Center, for building a surgical unit "renowned for its excellence."

The program concluded with the presentation of the Jackson E. Spears Community Service Award to *The Journal News*. The newspaper was honored for its leadership in promoting community efforts dedicated to education, human needs programs and crime prevention in Westchester, Rockland, and Putnam counties. John Tuller, director of public relations at *The Journal News*, who accepted the award, thanked the College and its guests for the recognition. "This evening is about the commitment and dedication it takes for New York Medical College to be a first-rate health sciences university," he said. ♦

Learning the Politics of Mental Health DURING A RESIDENCY IN PSYCHIATRY

MICHAEL D. BARNETT, M.D. '99

First came September 11. Then there were the anthrax scare and the Washington, D.C. sniper attacks. Next, the upgrade of the nation's terror alert from yellow to orange and a mass run on duct tape and plastic sheeting. Fear gripped America. People began flooding hospital emergency rooms, terrified of contamination. Some prepared for siege, stockpiling food, water, flashlights and potassium iodide. Others, too frightened to leave their homes, stopped going shopping, to gas stations or their children's soccer games. What was going on?

Initially it may have seemed that Americans were simply taking charge of their safety and doing everything possible to protect themselves against future terrorists attacks. Not so, says psychiatrist Michael D. Barnett, M.D. '99. In his view, Americans were riding a tidal wave of over-inflated panic and fear, the inadvertent result of the government's minute-by-minute efforts to inform citizens about the rash of terrorist attacks across the nation and throughout the world. He believes the government was so focused on rooting out terrorists that it paid little or no attention to the need to increase the psychological resilience of the American public. "Terrorism has nothing to do with airplanes and buildings," he declares, referring to the September 11 attack and the 1995 bombing of the Murrah Federal Building in Oklahoma City. "A terrorist act is nothing more than a vector, a way to create xenophobia and anxiety, and basically, to bring a society to its knees."

A recipient of the American Psychiatric Foundation's Daniel X. Freedman Congressional Fellowship for 2003, Dr. Barnett spent the last six months of his residency at George Washington University Hospital in Washington, D.C., working on legislation to fund mental health programs for survivors of terrorism. The six-month fellowship, established in honor of the late APA president, Daniel X. Freedman, M.D., allows senior psychiatry residents to learn about federal health policy—with a focus on mental health and other healthcare issues—by working in a Congressional office.

Michael D. Barnett, M.D. '99, right, sits with his wife, Laura Otolski, who is holding a framed copy of the first page of the bill he drafted while working as a Congressional fellow for Rep. Patrick Kennedy (D-R.I.), left.

Dr. Barnett was assigned to work with Rep. Patrick Kennedy (D-R.I.) on national mental health policy. In fact he was asked to review and update a bill Kennedy had written to fund community mental health centers treating people for the psychological after-effects of a terrorist attack. "The bill looked at the post event, at cleaning up the pieces *after* people were traumatized," Dr. Barnett says. "But it didn't look at ways of psychologically strengthening the public so there'd be *fewer* pieces to clean up."

In Washington, Dr. Barnett immersed himself in the world of politics. He met and brainstormed with top government and mental health policy officials within the U.S. Department of Health and Human Services (DHHS), including the Centers for Disease Control and Prevention, the National Institute of Mental Health, the Substance Abuse and Mental Health Services Administration and the Office of the Surgeon General. He also helped draft the National Resilience Development Act of 2003, H.R. 2370, designed to direct federal money and expertise to programs designed to psychologically prepare Americans for trauma caused by terror. The bill requires states to direct at least 1 percent of funds awarded them for bioterrorism preparedness to plan for helping people deal with terrorism's psychological aftermath. It would also create a task force within the DHHS and integrate its efforts with those of the Department of Homeland Security.

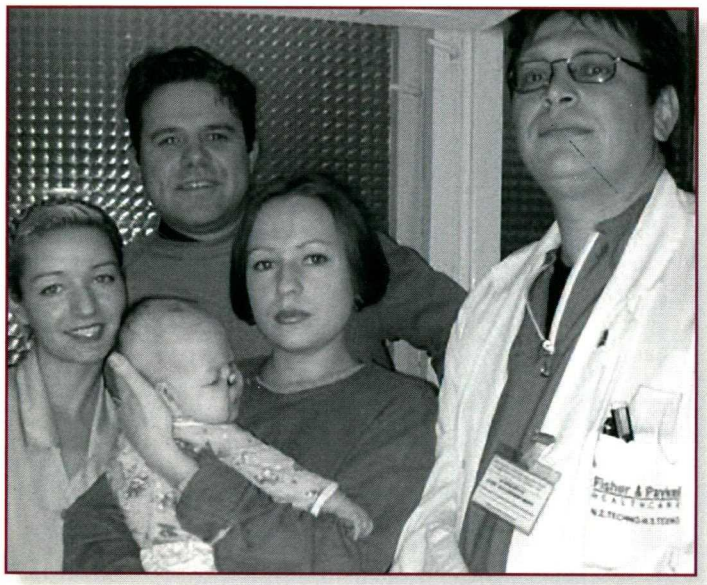
Dr. Barnett says he was surprised at how much he enjoyed helping to draft the bill, given his disinterest in political science, not to mention college. He dropped out of the University of Cincinnati and Adelphi University before realizing that to get anywhere professionally he'd have to go to college. Ultimately he graduated from Hunter College with a degree in philosophy and an award-winning senior thesis on the "Transcendental Deduction of Kant's Critique of Pure Reason." But philosophy offered no realistic career opportunities. Business didn't appeal to him. And, teaching fitness, which he liked, wasn't intellectually challenging. "I remember telling a good friend that I wanted to see if I could be a doctor," he recalled. The rest, as they say, is history.

> Dr. Barnett was assigned to work with Rep. Patrick Kennedy (D-R.I.) on national mental health policy.

While Dr. Barnett valued his brief stint in politics, he is eager to begin his career in psychiatry at the George Washington University Hospital, where he is now on staff. "One of my biggest interests is the marginalization and stigmatization of the mentally ill in society," he says. He is particularly interested in emergency room psychiatry. "I like the pace, the quick decision making, the excitement," he says. "I like having to figure out what's going on, how I'm going to treat a patient and stabilize a situation. Just like philosophy, it has a lot of unknowns." ♦

Treating Children From Chernobyl AND FINDING HIS ROOTS

OLEH SLUPCHYNSKYJ, M.D. '91



The team that helped little Mariyka, center, recover from facial disfigurement, are, from left, nurse Olena Kiretonek, Oleh Slupchynsky, M.D. '91, mother Vera Ktachuk, and Oleh Koriychuk, M.D.

His private plastic surgery practice has a swanky Park Avenue address, but Oleh Slupchynskyj, M.D. '91, doesn't just treat Manhattan's elite. When he isn't giving Botox injections or doing face or eyebrow lifts, he's removing skin cancer and following up with reconstructive surgery. And other times, he's in Ukraine, treating poor children with facial differences for free.

Dr. Slupchynskyj knew early in his training that he wanted to be a facial plastic surgeon. What he didn't anticipate was having the opportunity to translate his expertise into humanitarian aid and rediscover his roots along the way.

The opportunity arose when Zenon and Nadia Matkiwsky asked Dr. Slupchynskyj if he could help a little girl, Mariyka Ktachuk, who had contracted a near-fatal bacterial infection in a children's hospital in Kiev. The infection destroyed much of Mariyka's nasal cartilage and left her with a closed nasal passage, requiring her to have a tracheotomy to breathe. The Matkiwskys, whom Dr. Slupchynskyj has known since childhood, are founders of the Children of Chernobyl Relief Fund, a humanitarian organization created to help people affected by the 1986 Chernobyl nuclear disaster.

"They asked if there was anything I could do to help this child and sent me pictures," Dr. Slupchynskyj said. Initially he hesitated, afraid he wouldn't be able to help the child. Even if he could help her, he knew it would take years and many surgeries to accommodate her growing and changing facial structure. "Nobody can fix this kid in one shot," he said. But his hesitancy paled against his desire to help Mariyka. He wanted her to be healthy. And he wanted to do whatever he could to spare her the painful stigma of growing up with a disfigured face.

Expecting the hospital where Mariyka was staying to be poorly equipped, Dr. Slupchynskyj packed his medical equipment and traveled 4,700 miles to Kiev. He began treating Mariyka, then three months old, immediately. The first step was to open her nasal airway with a stent, allowing her to breathe. When he returned six months later he performed a limited bronchoscopy and found her vocal chords paralyzed, necessitating the tracheotomy. For now, that is all he can do. "We'll have to wait until she's at least seven and possibly a teenager, because she's still growing. If you do anything now it'll be out of proportion to what she'll look like later," he said.

Even after reconstruction Mariyka will have to heal emotionally from the stigma of growing up with a facial deformity, Dr. Slupchynskyj said. Facial differences—no matter how seemingly minor—can leave emotional scars deep enough to outlast the physical scars. The desire to be rid of such emotional pain compels many people to seek plastic surgery, Dr. Slupchinskyj said.

"Anyone who comes in for this kind of surgery has an emotional reason," he said. "Your patient is used to looking in the mirror and saying, 'There's something about me that's different from everybody else.' If you can fix it you've done a lot for them. To make people look better and feel better about themselves has a lot to do with how they view their life and relationships."

Dr. Slupchynskyj shares some Jolly Ranchers with one of his young patients who recovered nicely from cleft palate surgery.

Dr. Slupchynskyj decided on cosmetic and reconstructive surgery while doing his residency in otolaryngology at The New York Eye and Ear Infirmary, an affiliate of the College. At the time he was training to perform ear, nose, throat, head and neck surgery, as well as sinus and endoscopic ear surgeries related to hearing loss. He was also doing reconstructive surgery after removing thyroid and squamous cell cancers, and by the end of his residency, Dr. Slupchynskyj realized how much he liked reconstruction. "I saw I could make changes," he said.

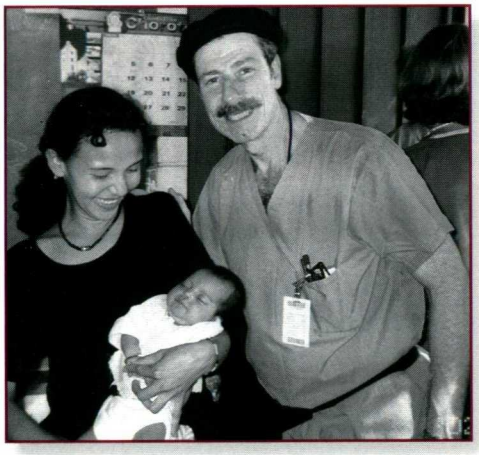
In addition to running the Aesthetic Facial Surgery Center of New York in Manhattan, Dr. Slupchynskyj is a clinical instructor of facial plastic surgery at St. Vincent's and The New York Eye and Ear affiliate. He also has a private practice in Lyndhurst, N.J.

Despite his full schedule, he travels to Ukraine regularly to see Mariyka and other children born with the facial legacies of Chernobyl. While visiting Mariyka this fall he plans to operate on a child with a cleft palate. "I'm lucky because I have this opportunity to go to my roots and help people I'm familiar with," says Dr. Slupchynskyj, who grew up in a small Ukranian section of New York's East Village and spoke Ukrainian before he learned English. "I enjoy helping people who otherwise would not know how or where to go for help." ♦

Humanitarian Rediscovers THE JOY OF HANDS-ON CARE

KENNETH P. CARLSON, M.D. '73

A mother walks for three hours, her six-week-old infant in her arms. By the time she reaches the makeshift clinic, the baby is blue. Kenneth P. Carlson, M.D. '73, the physician on duty, believes the baby is pneumonic and needs to be flown to a tertiary care center. But there isn't one in this remote, rural Honduran village. He settles for sending the child to a local hospital, but the mother explains through tears that the hospital has no oxygen. Running out of time, Dr. Carlson grabs a handheld nebulizer and begins infusing the baby with oxygen and antibiotic injections. He fears the baby will not survive the night. Within five days the baby is 100 percent.



Kenneth P. Carlson, M.D. '73, stands with the mother of a child successfully treated for bronchiolitis.

"This is what practicing medicine is supposed to be," says Dr. Carlson, a pediatrician who volunteers for MEDICO. (Medical, Eye and Dental International Care Organization), which provides free health and educational services to impoverished people in Latin America. Every few months Dr. Carlson leaves his private pediatric practice in Arlington, Texas, to join dozens of volunteer physicians, dentists, optometrists, nurses, nurse practitioners, pharmacists and translators who work from dawn to dusk in schools and churches that have been converted into clinics. Each week these volunteers treat some 2,000 people who trek miles over mountains and rough terrain, often barefooted, to see a doctor, many for the first time. Most of the patients Dr. Carlson sees—approximately 1,200 to 1,300 a week—are children.

"They just line up," Dr. Carlson says. "Some leave their homes at 4 a.m. so they can get to us by 7 or 8 a.m. We see them first thing in the morning so they can get back to their homes by dusk. The days are hot and long. We just keep drinking water and seeing patient after patient, family after family. Sometimes there's a fan, sometimes not, but everybody waits, everybody's patient. In some of these places they haven't seen a doctor in years."

In addition to providing practitioners who treat all types of illnesses, MEDICO dispenses free vitamins and medication, sends out a surgical team yearly and follows up on surgical referrals. It also uses donated funds to build homes and develop water purification and fluoridation projects. Since joining the organization four years ago, Dr. Carlson, who serves on the board of MEDICO, converted his family, including his wife and three grown children, to the cause. His son recently spent five months in Honduras building huts and teaching children to use computers, while his daughter worked with a local dentist.

"The conditions are primitive," Dr. Carlson says, describing the lack of running or drinkable water, electricity, adequate housing and food other than rice, beans and tortillas. "Every child is full of parasites, worms, bacteria and protozoa," he continues. They also suffer from malnutrition and upper respiratory infections. The volunteers live in primitive conditions as well, says Dr. Carlson, whose 12-to 14-hour days end on a mat in a local villager's house or on a church or school floor. "Go find a bathroom," he adds. "It's not very pleasant."

It's a far cry from Bensonhurst, N.Y., where Dr. Carlson was born and raised, and even farther from private practice, which increasingly involves battles with managed care over bureaucratic issues like not matching a patient with the proper specialist. "Over there you *are* the specialist and people are appreciative for what you're doing," he says.

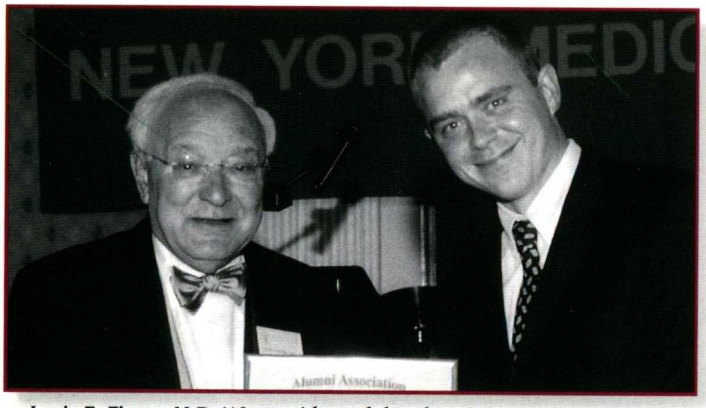
"I get discouraged practicing medicine because things have changed so much. You're dealing with lawyers, paperwork, insurance companies, HIPAA, confidentiality, documentation. You don't feel like you're helping anybody. You want to feel like you're giving back to society."

That has been Dr. Carlson's vision from the time he graduated NYMC, throughout his internship and residency at the Hospital for Sick Children in Toronto and a pediatric hematology fellowship at SUNY Downstate. He spent seven years practicing pediatrics in Texas before briefly relocating to Israel, where he ran a pediatric hematology clinic. He loved the work but couldn't earn enough to support his family and returned to Texas, where he's been ever since. Four years ago, while searching the web for volunteer opportunities, he discovered MEDICO. Volunteering for the organization has brought back the joy of hands-on medicine, the inspiration to read, learn, care for people and work in reciprocal relationships with local doctors and villagers.

"I'm alive there," Dr. Carlson says. "I may have a little dysentery when I get back, but when I come back I'm excited. I hit the books again. I give talks. Joining this organization has given me a shot in the arm. It's where I wanted to be 30 years ago." ♦

Patients in Honduras, many of whom walk for hours to reach the clinic, wait outside its gates.

Alumni From the Classes of '53 and '78 Find Familiar Faces



Louis E. Fierro, M.D. '60, president of the Alumni Association, presents Stuart Bentley-Hibbert, Ph.D. '99, M.D. '03, with the Alumni Endowed Scholarship, in recognition of his outstanding academic achievements.

Champagne flowed and trays of hors d'oeuvres made the rounds as alumni from the classes of 1953 and 1978 gathered in June at The Plaza Hotel in New York City to celebrate their 50th and 25th reunions. They arrived from all over—from California and Texas, Pennsylvania and Maine—to reunite with classmates, some of whom they hadn't seen since graduating medical school.

"I know a lot of you haven't seen each other since you walked out of New York Medical College, and that's what this is all about," said Rev. Msgr. Harry C. Barrett, D.Min., M.P.H., president and chief executive officer, as he welcomed alumni from the Class of 1953. For Joseph M. O'Connor, M.D. '53, a pediatrician from Toms River, N.J., the evening was filled with warm memories. "Nobody's changed," Dr. O'Connor said, as his old friend and classmate, Francis P. Montalbano, M.D. '53, an internal medicine physician at Sharpe Hospital in Coronado, Calif., shared a recent batch of family photos.

Frederick Macdowell Jr., M.D. '53, a plastic surgeon from Edinburg, Texas, also felt like he'd walked into a room of familiar faces. "It's great to be here," Dr. Macdowell said. "I haven't seen most of these guys for 50 years and I'm surprised. They all look good!"

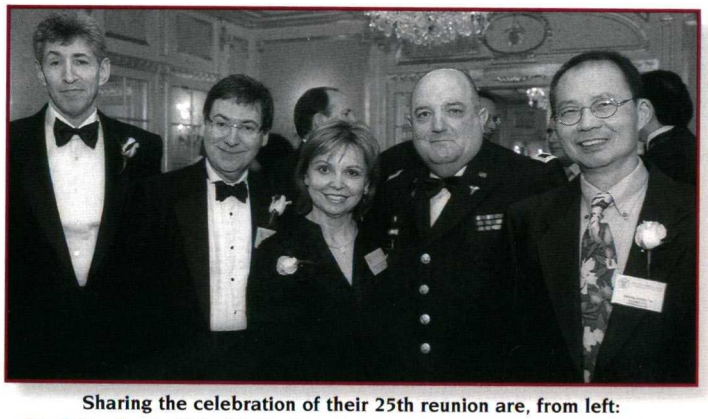
But few faces looked familiar to Nicholas E. Roberti, M.D. '53, a radiation oncologist from Oceanside, Calif. "At the 25th reunion I recognized people, but I don't here," Dr. Roberti said. "I don't know what that says about them or me!" John W. Mills, M.D. '53, an ob/gyn from Indiana, Pa., searched unsuccessfully for familiar faces, too. "It's uncanny. I don't recognize too many people," he said.

John T. Repke, M.D. '78, professor and chairman of the ob/gyn department at Pennsylvania State University in Hershey, Pa., was proud and surprised that he recognized as many of his former classmates as he did. Dr. Repke, who was the 1999 Medal of Honor recipient said, "I'm pleased so many people came!"

Edward S. Valentine, M.D. '78, a radiation oncologist at SUNY Stony Brook, was less concerned about not recognizing people than about how he and his classmates would react to each other after 25 years. "I wasn't sure how this would feel. I walked into the room and saw all these faces and walked up to people one by one. It was an incredible experience," he said.

Gradually old friends and classmates found each other. As they reminisced, they learned about the College's growth since their medical school days. Ralph A. O'Connell, M.D., provost and dean, described the tremendous strides the College had made since the Class of 1953 graduated. "I think you'd be very proud of New York Medical College today," Dr. O'Connell said. "You're probably the last class that went across to Metropolitan Hospital on a ferry. And I think you ladies would be proud to know that 53 percent of the incoming class is female." His remarks gave way to humor as he prepared to distribute gold diplomas. "If you didn't pay your library fee you don't get one," he added, igniting a roar of laughter.

Enjoying their 50th reunion with friends and former classmates are, from left: Francis P. Montalbano, M.D. '53, and Patricia D. Montalbano, M.D. '53; Jacqueline Guido and Joseph W. Guido, M.D. '53; and Thomas B. Crawshaw, M.D. '53.



Sharing the celebration of their 25th reunion are, from left: Mark Tomback, M.D. '78; Rodney S. Barron, M.D. '78; Helene Goldfarb, M.D. '78; Charles L. Garbarino, M.D. '78, Colonel/Medical Corps – NJ Army, National Guard State Surgeon; and Frank S. Tzeng, M.D. '78.

In his welcome to the Class of 1978, Dr. O'Connell noted the College's achievements in the last 25 years. "Since 1978, the College has been on a roll. We're on a roll academically; we're on a roll with research. You should be proud of us. We're proud of you."

Kevin R. Loughlin, M.D. '75, and Aaron J. Marcus, M.D. '53, Receive High Honors from Alumni Association

Two distinguished alumni, Kevin R. Loughlin, M.D. '75, and Aaron J. Marcus, M.D. '53, were named Medal of Honor recipients at the Alumni Association's 121st Annual Banquet at The Plaza Hotel in New York City in June. Speaking to a crowd of alumni—many of them newly minted—that filled the ballroom, Dr. Loughlin emphasized the tremendous potential for doctors to do good work in the world. Directing his remarks to the graduates of 2003, he traced his own successful career back to his grandparents, immigrants who lost everything in the Great Depression and still managed to work, raise a family and live to see their grandchildren. And despite his parents' economic struggles, Dr. Loughlin, who is professor of surgery at Harvard Medical School and senior surgeon and director of urologic research at Brigham and Women's Hospital in Boston, finished college under the GI Bill.

Kevin R. Loughlin, M.D. '75, left, recipient of this year's Medal of Honor, reunited with John T. Repke, M.D. '78, the 1999 Medal of Honor recipient.

"I look around the room tonight and I see the faces of immigrants, children of immigrants," Dr. Loughlin said. "I say to the graduates of 2003, when you consider the most important part of your medical education, it will be what you learn in the wards of municipal hospitals. We take care of the diaspora, the newest members of society."

Helping the disadvantaged is a tradition at the College, which is affiliated with urban hospitals that care for impoverished and underserved populations, including recent immigrants, Dr. Loughlin observed. It is also among the most important contributions physicians can make, he added.

"My wish for you is that when your grandchildren ask what you did for a living you'll be able to tell them that you worked in the noblest profession and made the noblest profession better," he said.

Addressing alumni who had come to celebrate their 25th and 50th reunions, Dr. Loughlin marveled at how far medicine has come in the past several decades. "When you were juniors in 1952, Jonas Salk was testing the polio vaccine for the first time in humans. In 1954 the first successful human kidney transplant was performed," he told the Class of 1953. "To the Class of 2003, one can only imagine what you'll see in the next 50 years."

Since graduating from Princeton in 1971, Dr. Loughlin, who has been included on several "Best Doctors" and "Top Physicians" lists, as well as *Who's Who in Science and Engineering* and *Who's Who in the World*, has made numerous contributions to medicine. The urologist has designed several surgical instruments, including one for which he holds the patent, and he has published papers on several innovative surgical techniques for urologic conditions. Dr. Loughlin also has received substantial funding to support his research in urologic oncology and urinary incontinence. He is on the editorial board of the *Journal of Urology*, is a section editor of *Contemporary Urology*, and has written or edited seven books and more than 200 articles and book chapters.

Alumni Association president, Louis E. Fierro, M.D. '60, left, presents a citation to Medal of Honor recipient Aaron J. Marcus, M.D. '53, as incoming president Christopher F.X. Riegler, M.D. '88, looks on.

Another Medal of Honor recipient Aaron J. Marcus, M.D. '53, was recognized for more than 45 years of research in the biochemistry and molecular biology of vascular cells, platelets and leukocytes. An internal medicine physician who specializes in hematology, Dr. Marcus is one of the longest-funded investigators still being supported through the National Institutes of Health. During the past 50 years he has received grants helping him to identify and define mechanisms by which the vessel walls control thrombo-genesis. Presently he is working on a new treatment for stroke.

Dr. Marcus is chief of hematology-oncology at the New York Veterans Affairs Medical Center in Manhattan and professor of medicine and pathology at the Joan and Sanford I. Weill College of Medicine of Cornell University Medical College. He is a fellow of the New York Academy of Medicine, which awarded him the Glorney-Raisbeck Award for Distinguished Achievement in Cardiovascular Medicine in 1998. He is also a fellow of the Council of Cardiovascular Disease and the American Heart Association. In a very brief acceptance speech Dr. Marcus stressed his commitment to research for the sake of medicine and for the benefit of humankind. Yet he had time enough to reflect on Sept. 11, 2001, saying, "I looked out from the lab and saw the destruction of the World Trade Center and thought, 'We should be more dedicated to what we're working on.'" ♦

If Ever a Couple Needed **More Hours In a Day...**

DORYS GARCIA, M.S. '95 AND JOHN HAND, PH.D. '96

The stress that juggling work and family places on marriage has always been fodder for women's magazines, but the balancing act isn't women's alone. Just ask Dorys Garcia, M.S. '95, and John Hand, Ph.D. '96, a couple that could write the book on balancing work, family and marriage and doing it with a sense of humor.

Dorys and John had their focus on graduate school when they first met at a picnic for students entering the Graduate School of Basic Medical Sciences (GSBMS) in the summer of 1991. But love works fast. Within a year they had married, and soon after they had two children, a house, two theses, and two careers to manage.

"I did everything fast because I thought, 'I have to do this before I get into my 40s,'" says Dorys, a vivacious, Venezuelan-born woman who speaks loud and fast, with sweeping gestures and bursts of laughter. She came to the United States in 1990 to work on vaccine development as an exchange visitor for the National Institutes of Health. The experience sparked her dream to study and become a scientist in America. She enrolled in the GSBMS, graduating with a master's degree from the Department of Microbiology and Immunology under the supervision of Lester May, Ph.D., and Pravin Seghal, M.D., Ph.D.

"I met *this* guy in biochemistry class," Dorys says, casting an unabashedly adoring glance at her husband who was a doctoral student in molecular biology in the Department of Biochemistry and Molecular Biology at the time. They married in the summer of 1992. Two months later Dorys discovered she was pregnant, surprising her even more than meeting the love of her life at the beginning of graduate school. Years earlier, she had undergone surgery to remove several large tumors from her uterus and parts of both ovaries. Doctors told her she would never be able to have children.

"The doctors thought I was totally sterile," she says. "I said, 'I don't care if I don't have children, I'm going to dedicate my life to science.'" She pauses, smiles at John and beams at her children. "When I knew I was pregnant I cried," she says. "Can you believe it? Look at these two beautiful miracles!" Compared to his wife's resonant voice, John's is barely audible. Complementing her gregariousness, he sits shyly, thumbing through a magazine, speaking with little expression in a tone that is close to a whisper. "I wasn't thinking about having children," he says, matter of factly. "I was in disbelief."

On April 7, 1993 (her professors had the foresight to schedule midterms two days before her scheduled C-section) she gave birth to Christopher, now 10. But the couple could not dwell on their rapid entrée into parenthood. Each had to stay focused on school and maintain at least a B average in order to remain eligible for graduate school stipends. They also had to keep up with lab work, care for their newborn, and manage to afford food, rent, diapers and the maintenance of one car, all on $24,000 a year. Fortunately, they share a good sense of humor.

Dorys' family came from Venezuela to help with the baby so she could complete her degree. After graduation, however, she and John were on their own. She'd work in the lab from 8 a.m. to 2 p.m., while her husband took the 3 p.m. to 2 a.m. shift. During exams, when the library stayed open late, John would sometimes work additional hours for extra money. "We'd switch Christopher in the parking lot," Dorys recalls, incredulous at the memory. "We didn't sleep too much. I'd play with Chris until 9 p.m. and then I'd put him to sleep and start to study." Because she'd failed her first road test, her husband had to do all the driving, and shopping. "Thank God Shop-Rite stays open until midnight," he says, allowing a hint of laughter.

Pros at juggling work and family life are Dorys Garcia, M.S. '95, and John Hand, Ph.D. '96, with son Christopher, 10, and daughter Mariana, 7.

There were times—like the period when John cared for Christopher two days a week and went to work at night—when being good-humored was tough. "Oh my God, BARNEY!" he moans, holding his head in his hands and recounting the hours he and Christopher spent watching the TV show with the singing and dancing purple dinosaur.

In 1996, when daughter Mariana was born, Dorys began parenting full-time, which wasn't easy either. For as much as she loved being a mom, she missed the stimulation of being in the lab around other scientists. "Sometimes we'd be in the park and all the parents would be talking about their children and we'd get into arguments about how to precipitate DNA," John says, chuckling.

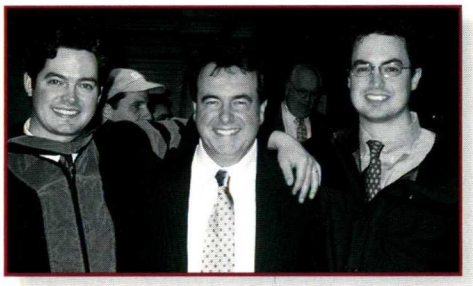
Life is a lot easier these days. Dorys returned to full-time work when Mariana was three, and says she enjoys researching HIV vaccines in the immunology department of Wyeth Laboratories in Pearl River, N.Y. John is happy with his job in the analytical research services department of Ciba Specialty Chemicals in Tarrytown, N.Y. While their careers are demanding, they are devoted to family time. John referees soccer games and manages baseball teams while Dorys volunteers in the kids' schools. They've taken several trips to Disney World and recently visited the Smoky Mountains in Tennessee. They also have two good cars.

Occasionally work pressures mount and either one may have to put in long hours or return to work at night. But, says Dorys, smiling, "The good thing about having the same career is that we understand when the other has to go to the lab." ♦

The Veneziano Family and Orthopaedics: Maybe It's in the Genes

In the Veneziano family orthopaedics is a family affair. Better yet, it's like father, like son.

Christopher Veneziano, M.D. '98, and his brother Joseph Veneziano, Jr., M.D. '03, are both novice orthopaedists whose interest in taking things apart and putting them back together could have led them to careers in carpentry. But watching their father, Joseph Veneziano, M.D. '67, drew them into orthopaedics.



Proud father Joseph Veneziano, M.D. '67, center, is embraced by his two doctor sons, Joseph Veneziano, Jr., M.D. '03, left, and Christopher Veneziano, M.D. '98, at young Joe's graduation.

"I used to take my sons to the hospital, sit them down, put a crayon in their hand and make my rounds," Dr. Veneziano says nostalgically. "I'm not sure they had any other aspirations." Well, almost.

Carpentry-savvy Chris Veneziano recalls his fascination with the tools his dad used in surgery: saws, screwdrivers, and hammers. "It was very similar to what we'd use to build a house," he says. From the time he was very young his father brought him into the operating room, showed him x-rays, slide shows and videos of surgeries he'd performed. His interest in carpentry shifted to orthopaedics. "It's the best of both worlds: fixing things that are broken and helping human beings," says Chris, who just completed his residency at the College's Department of Orthopaedic Surgery.

His younger brother, Joseph Jr., agrees that his early rounds with dad sparked his interest in orthopaedics. "He always included me in his work," Joe Jr. says. "He'd be putting on a cast and it looked interesting. When you're a kid, working with plaster looks like a lot of fun."

While neither ever felt pushed into orthopaedics or medical school, growing up in a family of physicians and nurses surely had an influence. In addition to their orthopaedist father, the boys' mother, aunt and one of their sisters are registered nurses. "They grew up in that type of atmosphere," says Joe Sr., who credits his own uncle, a general surgeon, for nurturing his interest in medicine by taking him on rounds.

Still, Chris and Joe Jr. were encouraged to pursue their own interests. "After college my parents said, 'Take some time, try some different things,'" says Joe Jr., now a resident at St. Joseph's Hospital and Medical Center in Patterson, N.J. Following his graduation from Wake Forest University in Winston-Salem, N.C., he headed for Colorado and worked as a ski instructor, eventually returning to New York and working as a bartender and a waiter. Five years later, his wanderlust satisfied, he began medical school.

Chris needed no period of exploration. "My parents were positive reinforcement," he says. "They said, 'We want you to do what makes you happy, so long as you work hard at what you choose.'" And who better to learn from than his father, who has been the sole orthopaedic surgeon at Harrington Memorial Hospital in Southbridge, Mass., for the

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MILESTONES

Two Thousand Three

Colleen R. Concannon, M.D. '03, is a pediatric resident at Brown University-Hasbro Children's Hospital in Providence.

Lea DeFrancisci, M.D. '03, received the Stephen P. Jewett, M.D. Memorial Award. The award was established by the Gralnick Foundation and given to the graduate who has demonstrated the greatest interest and proficiency in the field of psychiatry.

Audrey Leverich, M.D. '03, plans to intern for one year at Long Island Jewish Hospital in New Hyde Park and will do her residency in anesthesiology at New York-Presbyterian Hospital in New York City.

Miechelle O'Brien, M.D. '03, is doing her residency in internal medicine at Westchester Medical Center.

Kevin Patterson, M.D. '03, is doing his residency in psychiatry at the University of Pittsburgh Medical Center.

Two Thousand Two

Jessica Lynn Schutzbank, M.D. '02 and **Jason Harrison Miller, M.D. '02,** are engaged to be married on March 20, 2004. Dr. Schutzbank is doing her residency in physical and rehabilitative medicine at Harvard Medical School in Boston. Dr. Miller is at Baylor College of Medicine in Houston where he is doing a residency in plastic and reconstructive surgery.

Michael Shanik, M.D. '02 and **Erika Lang, P.T. '02,** were married on May 25, 2003, in Milwaukee, Wis.

Two Thousand One

Timothy M. McClung, M.P.H. '01, is director of the department of operations improvement at Norwalk Hospital in Norwalk, Conn.

Two Thousand

Byrd Cleveland, M.D. '00, finished her residency in family medicine and will be practicing women's health care at the AIDS Treatment Center in Albany, N.Y. She will work part time so she can spend more time with her daughter.

Gregory John Kutter, M.D. '00, has joined the emergency medicine department of St. John's Clinic in Springfield, Mo.

The Nineties

Arun Goyal, M.D. '90, an assistant professor of surgery at NYMC, has joined the medical staff of White Plains Hospital Center. Dr. Goyal, whose interests include minimally invasive venous surgery and endovascular surgery, is affiliated with Vascular Associates of Westchester in White Plains and Hawthorne, N.Y.

Richard M. Hayes, M.D. '90, is a cardiologist with University Cardiology Associates, a practice associated with New York University Medical Center and NYU Downtown Hospital. Dr. Hayes is also director of the hospital's coronary care unit and echo lab. He is involved in clinical studies on acute coronary syndromes and lives in Tribeca.

Rory Lewis, M.D. '90, board-certified in orthopaedic surgery, specializes in arthroscopic surgery, joint replacement and sports medicine. He and his wife Dawn, a licensed nurse practitioner, live in Mexia, Tex. with their twin girls. They are expecting another child this year.

Toni Golen, M.D. '91, is working in a private ob/gyn practice in Brookline, Mass. Dr. Golen and husband Jimmy have two children: Harry, 2 and Sadie, 1.

Virginia Gray-Clarke, M.D. '91, a pediatrician, is on staff at Sharon Hospital in Sharon, Conn. Dr. Gray-Clarke is a fellow of the American Academy of Pediatrics and the Connecticut State Medical Society. She also is certified in neonatal resuscitation, basic life support and pediatric advanced life support.

Richard Kaiser, M.D. '91, has joined the department of psychiatry at Emerson Hospital in Concord, Mass. Dr. Kaiser has held teaching appointments at Harvard University School of Medicine and Boston University School of Medicine. His clinical interests include geriatric and medical psychiatry.

Jeffrey S. Fine, M.D. '93, is director of rehabilitation medicine and co-director of the residency training program at the Denver Health Medical Center in Colorado.

Sam H. Hessami, M.D. '93, is director of the division of urogynecology and pelvic reconstructive surgery for the department of ob/gyn at Newark Beth Israel Medical Center in New Jersey. Dr. Hessami most recently was director of the Center for Incontinence and Female Pelvic Floor Disorders at University Hospital, the University of Medicine and Dentistry in Newark. A board-certified ob/gyn, he frequently lectures, writes and conducts research on urogynecologic conditions and pelvic reconstructive surgery.

Jean M. Hudson, M.D., M.P.H. '93, recently became commissioner of health for Orange County, N.Y. Previously, Dr. Hudson was deputy commissioner of the Westchester County Division of Community Health Services. Prior, she was the director of Women and Youth Services for the Westchester County Department of Health. She also was medical director of the Ossining Open Door Health Center and a physician at the Center. (Please see story on page 28.)

Matthew Loughlin, M.D. '93, a board-certified urologist, has joined the staff of Parrish Medical Center in Titusville, Fla.

Nhan Tai, M.D. '93, has joined the staff of Waterside Women's Care, an ob/gyn practice in Hopewell Junction, N.Y.

Jim Januzzi, M.D. '94, is on staff at Massachusetts General Hospital in the division of cardiology and was promoted from instructor to assistant professor of medicine at Harvard Medical School after two years. Active in clinical work, Dr. Januzzi is researching acute coronary and aortic syndromes. He and wife Roberta live in Chestnut Hill, Mass., with their two daughters Caterina 5, and Julianne 2. "Things just couldn't be better!"

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Taking Different Paths to Enrich Humanity

GIANCARLO GUIDERI, PH.D. '69, AND LUCAS V. GUIDERI, M.D. '03

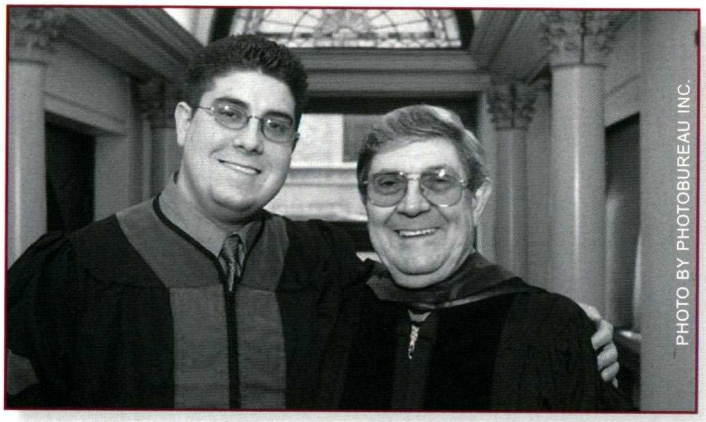
Everyone is responsible for finding purpose in life and that purpose, ideally, should be geared toward helping other people. It's a tough standard, but one by which Giancarlo Guideri, Ph.D. '69, emeritus professor of pharmacology, has tried to shape his children's —and his own—lives.

"I see people running up and down at lunch hour looking like a column of ants," says Dr. Guideri, in an accent surprisingly thick for one who moved 45 years ago from Siena, Italy, to the United States. "It's the responsibility of everybody who is born not to be an ant, to do something that maybe will enrich the lives of other people."

Of course, there are countless ways to do this, as demonstrated by the very different paths that Dr. Guideri and his son, Lucas V. Guideri, M.D. '03, have taken.

The senior Dr. Guideri's path led him to a career as an acclaimed scientist and teacher. Research and teaching have been his vehicles for trying to help humankind. "When I came to the U.S. I was moved by people's suffering, I was a bleeding heart," said Dr. Guideri, who joined the faculty in the Department of Pharmacology in 1969. "Science was a fantastic place to be because you could immerse yourself in a problem," he said. "It becomes a passion, to find out why things happen."

Dr. Guideri began his career in the pharmacology lab of Edward Aiello, Ph.D., where he helped work on a study that found that mollusks could produce serotonin. He was enrolled in the master's program in organic chemistry at New York University, and after graduation Dr. Aiello asked him to consider an organic chemistry project to apply toward a doctorate from the College. Instead, Dr. Guideri, who found working in Dr. Aiello's lab more interesting, enrolled in the pharmacology department's Ph.D. program, under the guidance of Joseph Feisteri, Ph.D. Upon finishing in 1969, he joined the faculty.



Lucas V. Guideri, M.D. '03, and his father, Giancarlo Guideri, Ph.D. '69, enrich lives through music and science.

Years of accolades paved Dr. Guideri's successful journey as a teacher, culminating in 1999, with his appointment as professor emeritus. During his active years, he was a 12-time recipient of the Excellence in Teaching Award. He was also commended for his research on cardiac death and on the neural regulation of circulation. Now semi-retired, Dr. Guideri occasionally assists pharmacology students at the College with research or other academic questions. For two weeks each year he visits the medical school at the University of Guadalajara, where he gives lectures on the autonomic nervous system. He also is finishing a book on basic pharmacology, written to give the public a simplified understanding of drugs on the market. As he taught his children so long ago, every aspect of his work is driven by his desire to enrich people's lives.

Like his father, Lucas V. Guideri, M.D., '03, is committed to making a difference. Yet, poised to begin his medical career, he is not sure how. He graduated in May and would be a first-year resident had he not begun questioning whether medicine—or music—would be the best way to reach his goal.

Although he started studying classical violin at age seven, Lucas Guideri always assumed that his love for science, reasoning and learning new things would lead him to a career in medicine. He majored in biology at SUNY Stony Brook with the intention of going to medical school and becoming a doctor. But he never stopped playing his violin.

"I was going to go into internal medicine," he says, adding that he was also interested in cardiology, gastrointestinal and general practice. Once in medical school, however, he found it increasingly difficult to keep up with his lessons and practicing. "Once we had our first anatomy test the violin started collecting dust." During the middle of his fourth year he realized he missed playing music. "I thought I should give violin a chance, and I started practicing more," he said. That's when he started questioning his career choice. One look at his family's professional profile explains why Dr. Guideri was so conflicted.

His musical roots run deep. His mother, Ruth, is a cellist with the Long Island Philharmonic Orchestra and director of the Center for Preparatory Studies in Music at Queens College. And there are his two sisters: Jessica, first violinist for the Fry Street Quartet at Utah State University in Logan; and Danielle, a cellist who just earned her master's in cello performance from Queens College.

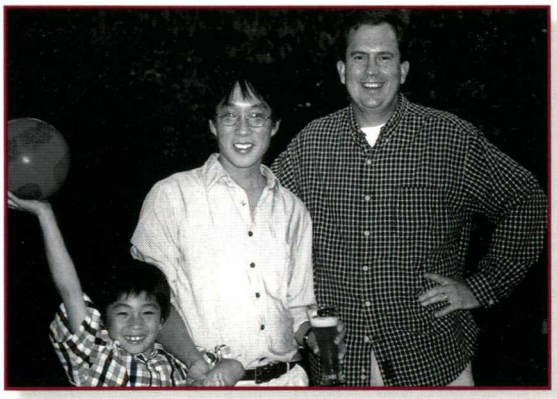
Fortunately, Lucas Guideri's family, as well as Gladys Ayala, M.D., associate dean for student and minority affairs, fully support his recent decision to postpone his residency for two years and earn a master's degree in music at Queens College. Dr. Ayala assured him that taking time off after graduation won't threaten his abilities to enter a residency program, although she advised him to take Step 3 of the licensing exam next summer. (He's already taken the first two exams and will complete the third within a seven-year period.) "She said as long as I'm doing something productive it shouldn't be any problem in terms of getting back into residency," Lucas Guideri said.

The real problem will be in making a decision. "It's going to be difficult," he said. As for Dr. Giancarlo Guideri, he believes either choice will lead his son to a noble career: "My son has two great loves: science and music. Whatever decision he makes is fantastic!" ♦

COMMITTED TO LEARNING: His Students' and His Own

ROBERT LIN, M.D., M.S. '92

Robert Lin, M.D., M.S. '92, was nearly 15 years into a successful medical career, balancing full-time clinical work, scientific research and first-time fatherhood, when he decided he wanted a master's degree in biostatistics. He didn't consider the act of squeezing graduate school into his already-packed life to be noble or difficult. Rather, he saw it as a practical career move: getting a much-needed grasp on biostatistics so he could truly understand the medical literature.



Robert Lin, M.D., M.S. '92, middle, with his son Huei, left, and James Smith, M.D., right, who was a resident at Metropolitan Hospital.

Dr. Lin had always been interested in biostatistics, but, like many medical students, he never really understood it. "Med students don't pay much attention to biostatistics because it's not important to the overall scheme of their studies," Dr. Lin said. "You just learn what you need to know to take tests." But during his fellowship in allergy and immunology, he realized how much he was missing. "When you do your fellowship you're reading a lot of high-powered articles from respectable medical journals," he said. "But the methods section of most articles looks like Greek to most doctors. I was really tired of not being able to understand that portion of the articles. I wanted the master's degree to allow me to be more independent."

While working as the director of allergy and immunology at Metropolitan Hospital Center in New York City, Dr. Lin, a professor of medicine since 1986, learned that the College program structure at the School of Public Health (then known as the Graduate School of Health Sciences) would support his graduate study of biostatistics. The College also allowed him to take several required courses online, a boon for the full-time attending who had a newborn baby at home. "I don't know how many other graduate schools have that kind of flexibility," he said. In 1992 at the age of 42, Dr. Lin graduated in a ceremony at Carnegie Hall. "It was exciting, even though I was already middle-aged," he said.

Age, of course, does not predict when a career will flourish. And as Dr. Lin soon discovered, having a master's degree in biostatistics gave his career an exciting new dimension. "Learning how to handle biostatistics was like learning a foreign language that allowed me to communicate better in the area of investigative and descriptive medicine," he explained. "I could relate to my colleagues not just on clinical matters but also on academic affairs."

In addition to his clinical and academic posts at St. Vincent's Hospital in New York City, where he teaches electives in allergy and immunology, he also teaches classes in biostatistics to students and staff members who feel as deficient as he did. "I give lectures on biostatistics for fellows and residents so they can understand the key points and not be befuddled like I was," Dr. Lin said. "A lot of times people know the terminology but don't know how to look at how the final differences are reported. Many research studies have tables and charts, and I think it's important to understand them." Dr. Lin assists medical fellows with preparing their research for publication and helps third-year residents in the Department of Medicine meet their research requirement.

His biostatistics degree has also enhanced his administrative role at St. Vincent's, where he is the medical advisor for the hospital's utilization review department. "I educate doctors about what constitutes appropriate hospitalization and I make sure the hospital gets reimbursed appropriately for its patients," Dr. Lin said. As a result, the managed care organizations that once denied coverage for some cases have relaxed their stringent standards, now that the hospital has begun monitoring its own utilization.

Dr. Lin deserves credit for helping to improve the hospital's utilization record and for boosting students' and colleagues' understanding of biostatistics. Rather than dwell on his contributions, however, he focuses on the importance of continually educating himself. "I certainly feel the need to continue growing in terms of my professional life," he said. "I don't think people get another degree with a specific future job in mind. It is just another way to have a broadened perspective." ♦

MILESTONES

Tabassum Saba, M.D. '94, is on staff at St. John's Regional Medical Center in Joplin, Mo. Dr. Saba, a psychiatrist and member of the American Psychiatric Association, also works at St. John's Counseling Resource Center.

John Fitzgerald Byrne, M.D. '95, has joined the medical staff at John T. Mather Memorial Hospital in Port Jefferson, N.Y. Dr. Byrne previously was a clinical assistant instructor in medicine at Stony Brook University. He also was a clinical fellow in medicine at Harvard Medical School. Dr. Byrne's specialties include allergies and environmental sensitivities.

Jennifer Flood, M.S. '95, was recently appointed director of clinical nutritional services for The Hebrew Home for the Aged in Riverdale, N.Y. Ms. Flood lives in Yonkers with her husband and daughter.

Kathy M. Messina, M.D. '95, and her husband **Tom Insinna, M.P.H. '95,** are pleased to announce the birth of their third daughter on March 4, 2003. Caroline Grace joins big sisters Kaitlyn, 5 and Natalie, 2.

Arthur "Tony" Blain, M.D. '96, was elected president of the California Medical Association Resident Physician Section for 2003. Dr. Blain works in the family medicine residency program at the University of California, San Diego. Quoting Thomas Jefferson, he writes, "I find that the harder I work, the more luck I seem to have."

Yoko Momoyama, M.D. '96, is practicing medicine with the DuPage Medical Group in Lombard, Ill.

Margaret M. Squillace, M.D., M.P.H. '96, clinical assistant professor of medicine at NYMC, has joined the staff at Calvary Hospital in the Bronx. Formerly the associate program director of the internal medicine residency program at Our Lady of Mercy Medical Center, Dr. Squillace was also the manager of medical quality assurance, medical director of employee health services and an attending in the department of medicine. She has written several papers on preventive medicine and community disease.

Jeffrey H. Hsu, M.D. '97, has completed his general surgery training at the University of Rochester's Strong Memorial Hospital. Dr. Hsu will remain there for a fellowship in vascular surgery.

Michael Q. Cerullo, M.S. '98, is a physical therapist with Optimum Orthopedics in Montclair, N.J. He is also a certified strength and conditioning specialist and director of physical therapy for the A&P Supermarkets Return-to-Work Center.

Hople Hamilton-Rodgers, M.D. '98, has been board certified in pediatrics by the American Board of Pediatrics. She is on staff at Saint Eugene Medical Center in Dillon, S.C.

Nicole R. Huber-Jensen, M.P.H. '98, recently began working in pediatrics after three years of neurology and orthopaedics at Stanford Hospital in Palo Alto, Calif. Recently married, she and husband Wade L. Jensen are living in San Jose.

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MILESTONES

Debra M. Parisi, M.D. '98, finished her orthopaedic surgery residency and is beginning a fellowship in hand surgery at the University of Washington in Seattle.

Shiela Subramanian, M.D. '98, M.P.H. '98, is practicing primary and preventive medicine with UConn Health Partners in West Hartford, Conn. Dr. Subramanian is on the faculty of the University of Connecticut Health Center and is an assistant professor of medicine with the University of Connecticut School of Medicine.

Cynthia M. Miracle, M.D. '99, has completed a year as chief resident in internal medicine at Long Island Jewish Medical Center in New Hyde Park, N.Y. Dr. Miracle, her husband Mike and their toddler, Jordan Wade Cathcart, are moving to San Diego, where she will begin a fellowship in nephrology at the University of California, San Diego.

Khoa Tran, M.D. '99, an internal medicine physician, is a hospitalist at Lankenau Hospital in Wynnewood, Pa. He specializes in the care of hospital patients who do not have a primary care physician, uninsured patients, or patients whose physician does not have admitting privileges.

The Eighties

Peter A. Galvin, M.D. '80, was recently appointed chief medical officer at Peninsula Hospital Center in Far Rockaway, N.Y. Dr. Galvin, formerly the hospital center's associate director of medical affairs, has been an attending physician in the department of medicine since 1983. He also is a surgeon for the New York City Police Department. Dr. Galvin and his wife live in Rockaway Park, N.Y. and have four children.

Regina Giuffrida, M.D. '80, a member of the Board of Governors, is practicing obstetrics and gynecology at the Mount Kisco Medical Group in Mount Kisco and Yorktown, N.Y. Dr. Giuffrida belongs to the medical board of Northern Westchester Hospital Center in Mount Kisco. She and her husband Jack McMenemon have three children: Kaitlin 19, a student at New York University; Joe 18, who attends the Brunswick School and Patrick 11, who attends the Rippowam Cisqua School.

Russell Settipane, M.D. '84, is a board certified allergist on staff at Rhode Island Hospital in Providence and at Landmark Medical Center. Dr. Settipane is also a consulting staff member at South County Hospital and Newport Hospital and clinical associate professor at Brown University Medical School.

Tedd L. Weisman, M.D. '84, assistant clinical professor of orthopaedics at NYMC, has opened a new practice, Orthopedic-Health in Westport, Conn. Dr. Weisman specializes in sports injuries and conditions related to the musculoskeletal system.

Barry R. Witt, M.D. '84, a reproductive endocrinologist, joined the medical staff in the ob/gyn department at Greenwich Hospital in Greenwich, Conn. Dr. Witt also is medical director of the fertility practice at Greenwich Fertility and IVF Center.

Daniel J. Buchholz, M.D. '85, is chief of radiation oncology at M.D. Anderson Cancer Center Orlando in Florida. Dr. Buchholz specializes in breast and gastrointestinal cancer.

John C. Gruendel, M.D. '87, a cardiologist on staff at Putnam Hospital Center, recently joined the board of directors of the Putnam Hospital Center Foundation.

Steven Litman, M.D. '87, is working as a pain management specialist at John T. Mather Memorial Hospital in Port Jefferson, N.Y. Dr. Litman, who specializes in acute, chronic and cancer pain management, was named to Castle Connolly's *Top Doctors in the New York Metro area* for the last four years. He is board certified in anesthesiology and the subspecialty pain management with the American Board of Pain Medicine, the American Academy of Pain Management and the American Board of Anesthesiology. Dr. Litman lives in East Setauket with his wife Helen and their two children, Michael and Emily.

Joseph P. Rafferty Jr., M.D. '87, is an urgent care physician for Harbor Medical Associates in Weymouth, Mass. Dr. Rafferty lives in Kingston, Mass., with his wife Kathe and their children Kaylene 8; Luke 6; Patrick 4; and, Sean 2.

James P. Marro, M.D. '88, is an orthopaedic surgeon with the South Carolina Orthopaedic Institute in Orangeburg, S.C. He specializes in adult and pediatric orthopaedic surgery and sports medicine.

Edward G. Shuster, M.D. '88, is in private practice specializing in internal medicine, clinical nutrition, and geriatrics. He and wife Susan live in Monsey, N.Y., with their five children.

Sandra J. Stephens, M.D. '88, is practicing pediatrics at the Family Health Center in Orangeburg, S.C.

William V. Begg, III, M.D. '89, has been nominated for the second consecutive year for the Dr. Melville G. Magida Award, presented annually by the Fairfield County Medical Association and the Richard and Hinda Rosenthal Foundation. Dr. Begg is an emergency room physician at Danbury Hospital in Danbury, Conn. He received the AMA Physician Recognition Award in 1995 and again in 2003. He also received the National EMS Recognition Award in 2001. He has spoken at many high schools on the deleterious effects of teenage drinking and has participated on panels promoting safe driving and rallying against drug use. Dr. Begg lives in Newtown with his wife and three young children.

Robert Scharfman, M.D. '89, is vice president of the New Jersey Academy of Ophthalmology. Dr. Scharfman has a private ophthalmology practice in Old Bridge, N.J. He lives with his wife Linda and their two sons, Adam and Matthew, in East Brunswick, N.J.

The Seventies

Charles L. Barrett, M.D. '70, is completing 28 years in private ob/gyn practice in Mountain View, Calif. Dr. Barrett is one of three senior partners in an ob/gyn group of nine physicians and nurse midwives. His youngest child began college this fall and he is expecting his first grandchild. Dr. Barrett still plays tennis five times and golf twice a week and is looking forward to his 35th reunion in 2005!

Larry W. Denmark, M.D. '70, recently retired from his diagnostic radiology practice. Dr. Denmark and Karen, his wife of 30 years, are moving from New Hampshire to southwest Florida. Their son David has completed his second year at NYMC. Their daughter Lisa will soon receive her doctorate in clinical psychology, and their youngest son Jacob will receive a bachelor's degree in engineering from Stanford University.

Robert A. Peinert, Jr., M.D. '70, an orthopaedic surgeon, has joined the Elk Regional Health Center in St. Marys, Pa. Most recently Dr. Peinert was associated with Dallas Southwest Medical Center in Texas. He and his wife Nadia have one son.

Robert D'Alessandri, M.D. '71, is vice president for health sciences and dean of the West Virginia University's School of Medicine. Dr. D'Alessandri specializes in internal medicine and infectious diseases. He lives in Morgantown, W.Va. with his wife Elaine. The couple has two daughters: Dawn, who works for a medical instrumentation company in Philadelphia, and Anne, a medical student who will be graduating from the WVU medical school this year.

Glenn Herman, M.D. '71, has been appointed director of maternal/fetal medicine at Raritan Bay Medical Center in Perth Amboy, N.J. Dr. Herman also has been named chair of the ob/gyn department for the medical center's two facilities in Perth Amboy and Old Bridge. Previously he was on staff at Monmouth Medical Center, providing high-risk obstetrics and gynecology services.

Steven F. Horowitz, M.D. '72, is director of cardiology at Stamford Health System in Connecticut. Dr. Horowitz, a professor of medicine and nuclear medicine at Albert Einstein College of Medicine in the Bronx, worked at Beth Israel Medical Center in Manhattan since 1988, most recently as chief of cardiology of The Heart Institute and previously as chief of medical cardiology at the institute.

Arthur Kaye, M.D. '72, proudly announces that his daughter Shana Kaye, M.D., was in the NYMC graduating class of 2003.

Charles Kenny, M.D. '72, is an orthopaedic surgeon at Little Falls Hospital in Little Falls, N.Y. Previously, Dr. Kenny was on staff at Fairview Hospital in Great Barrington, Mass.

Robert D. Restuccia, M.D., '72, was recently named a 2002 Lifesaving Partner by the Gift of Hope Organ and Tissue Donor Network in recognition of his support for organ and tissue donation. Dr. Restuccia is director of pediatric critical care medicine at Rockford Memorial Hospital in Rockford, Ill.

Charles R. Reina, M.D. '74, reports that his son Christopher will graduate from Syracuse University's Maxwell School For International Studies in 2004. His daughter Patricia is headed for a master's in counseling from the University of Scranton. Dr. Reina, who lives and works in Easton, Pa., says he belongs to the ranks of many parents who are paying tuitions!

Alan S. Sacerdote, M.D. '74, is chief of adult endocrinology at Woodhull Medical and Mental Health Center in Brooklyn. Dr. Sacerdote also is clinical associate professor of medicine at SUNY Health Science Center in Brooklyn and adjunct professor of endocrinology in the Long Island University Physician Assistant Program. Last year Hilton Publishing released his book, co-written with Allan F. Platt, *"Hope and Destiny, A Patient's and Parent's Guide to Sickle Cell Disease and Sickle Cell Trait."* Dr. Sacerdote lives in Brooklyn with his wife Nancy, who contributed to the book.

Robert Dawe, M.D. '75, is chief of orthopaedic surgery at Bridgeport Hospital in Connecticut. Dr. Dawe, who has been in practice since 1980, specializes in pediatric orthopaedic surgery and spinal reconstructive surgery. He is a clinical instructor at Yale University School of Medicine.

Stanley Rabinowitz, M.D. '76, is in private practice with a pulmonary medicine group in Bethpage, N.Y. Dr. Rabinowitz is also director of medicine at New Island Hospital in Bethpage and chairman of the hospital's medical ethics committee.

Andrew J. Czernik, Ph.D. '77, is co-founder of Phospho Solutions, a Colorado-based biotech company that develops phospho-specific antibodies, which are key to the study of phosphoproteins. Phosphoproteins are thought to be critical elements in neurological diseases, such as Alzheimer's, and in cancer. Previously, Dr. Czernik was a senior research associate in the laboratory of molecular and cellular neuroscience at The Rockefeller University in New York City.

Kerry White, M.D. '77, a neurosurgeon, has joined the Luther Midelfort Hospital/Clinic, part of the Mayo Health System in Eau Claire, Wis.

Roger Harris Silverstein, M.D. '78, has received his 25-year silver diploma.

Dan Kenigsberg, M.D. '78, is a reproductive endocrinologist at John T. Mather Memorial Hospital in Port Jefferson, N.Y. Dr. Kenigsberg and his wife Susan have two sons, Ben, a student at Columbia University, and Alex, an accomplished violinist.

Matt Farber, M.D. '79, will serve as president of the Allen County Medical Society for 2003-2004. Dr. Farber lives and practices medicine in Ft. Wayne, Ind.

Alan D. McClelland, M.D. '79, is a surgeon with Associated Surgeons in Greenfield, Mass. The Franklin District Medical Society, a chapter of the Massachusetts Medical Society, named Dr. McClelland Community Clinician of the Year.

Nicholas F. Sapienza, M.D. '79, has joined Mohawk Valley Imaging radiology group and is a staff radiologist at St. Elizabeth Medical Center and the Marian Medical Center in Utica, N.Y.

Terry Shlimbaum, M.D. '79, is medical director of Phillips Barber Family Health Center in Lambertville, N.J. and Delaware Valley Family Health Center in Milford, N.J., both part of the Hunterdon Medical Center.

The Veneziano Family

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past 29 years. "I wouldn't do anything else," says Dr. Veneziano, who sees 75 patients a week at the 125-bed community hospital, generally working from 6:30 a.m. to 8:30 p.m. "And those are early days," he quips.

Long hours aside, Dr. Veneziano prefers working in a small hospital because he believes he has more freedom than he would in a large medical center. "You're the boss rather than the administrator," says Dr. Veneziano, who also is an associate at the University of Massachusetts-Memorial Hospital of Worcester. Yet, there is a down side. "The only problem is that the hospital treats a small population, so it can't support a lot of staff positions," he says. "If you do surgery you have to be around for your patients because there's no one else to cover for you. You're the guy they depend on."

Though his sons are doctors in their own right, they depend on him too. "I'd be on call in the middle of the night and I'd look something up in a book. If I was unsure and wanted a second opinion I'd call my dad —kind of as an excuse to talk to him but also to get his opinion," Chris says. Despite his father's solo status, he always has time for patients, Chris says. "He has great doctor-patient relationship abilities. He sits and listens and takes time to explain things to them."

Apparently he is also a wonderful teacher, because both sons are considering working with him in the future. "He's a great surgeon," says Chris, who is doing a fellowship in orthopaedics and sports medicine at Georgetown University's Nirschl Sports Medicine Clinic in Arlington, Va.

Joe Jr. may also pursue a fellowship in sports medicine or go right to work with his dad and prepare to take over his practice when he retires. "It's almost like the perfect situation. He could teach me for a few years before I went on my own," Joe Jr. says. However, he will have to be patient. Dr. Veneziano says he wouldn't mind cutting down on some of his hours but he's nowhere near ready to retire. ♦

MILESTONES

The Sixties

Alfonso Ciarlo, M.D. '65, is a partner with Delaware Medical Associates in Wilmington.

Richard Robbins, M.D. '66, who retired in 1995, has spent the last seven years cruising in Central and South America waters with his wife Lois on their trawler yacht, Adagio. Between exploring, diving, and fishing, Dr. Robbins volunteered medical services in the remote regions of Guatemala and Panama. They sold their boat last winter and moved to the Big Island of Hawaii, 20 miles north of Hilo. They'll be spending their time tending to the 1500 palm trees on their property, several fishponds, and continuing to enjoy a leisurely retirement.

Lawrence S. Schechter, M.D. '66, is the director of the division of nuclear medicine for a radiology group in Queens, N.Y. Since October 2002, Dr. Schechter has been in charge of the first PET scanner in Queens. He also is clinical assistant professor of radiology at the Weill Medical College of Cornell University.

Robert M. Silton, M.D. '66, has retired from the practice of pathology and is enjoying hiking trips and other travels with his wife Laurie. The couple has two grown children; Stephanie is a second-year resident in pediatrics at Yale-New Haven Hospital and Douglas is a professional swing dance teacher. "Both get their style and smarts from their mother."

Richard Fogler, M.D. '68, is chairman of surgical services and program director for the surgical residency program at Brookdale Hospital and SUNY Downstate in Brooklyn, N.Y. Dr. Fogler is also senior vice president and director of general medical education at Brookdale and dean of general medical education at Brookdale for SUNY.

Michael Platt, M.D. '69, board certified in internal medicine, practices preventive medicine in Palm Desert, Calif. Dr. Platt specializes in detecting and treating hormone-related causes of illness, including obesity. Dr. Platt has developed a program for wellness called Metabolic Solutions, which is based on the regulation of hormones.

The Fifties

Paul Tucci, M.D. '51, clinical professor in the Department of Urology at NYMC, received the honorary degree of Doctor of Humane Letters Honoris Causa, during the 92nd commencement ceremony of the New York College of Podiatric Medicine. Dr. Tucci has a private urology practice in Yonkers, N.Y., as well as appointments at Mount Vernon Hospital, Westchester Medical Center and Lawrence Hospital.

John W. Mills, M.D. '53, retired gynecologist and model railroad enthusiast, received a gold diploma at the reunion of the Class of 1953, marking the 50th anniversary of his medical school graduation.

Arno R. Hohn, M.D. '56, is working full time in the division of cardiology at Children's Hospital in Los Angeles.

Daniel M. Baer, M.D. '57, received the Ward Burdick Award for Distinguished Service to Clinical Pathology at the 2003 American Society for Clinical Pathology's Annual Meeting in New Orleans. Retired as chief of laboratory services at the Veterans Affairs Medical Center in Portland, Ore., Dr. Baer remains on the hospital staff. He lives in Lake Oswego.

Howard Kline, M.D. '58, is still enjoying practicing, teaching and lecturing as a cardiologist in San Francisco. He also competes as a master swimmer for the University of San Francisco.

Roger D. Smith, M.D. '58, is professor emeritus and an attending pathologist at the University of Cincinnati Medical Center in Ohio. He and wife Margaret travel to Colorado and California often to see their four sons and six grandchildren and to golf, fly-fish and visit the opera.

The Forties

James Bowes, M.D. '49, has retired as health officer of Frederick County, Md.

In Memoriam

Oscar Auerbach, M.D. '29, died in 1997. He was 92.

Peter V. Bisconti, M.D. '37, died August 28, 2003, in Bronxville, N.Y. He was 91.

Harry L. Trambert, M.D. '42, died May 1, 2003, in Santa Barbara, Calif. He was 87.

Sheldon H. Kaften, M.D. '43.

William Edward Pickett, M.D. '45, died July 6, 2003.

Richard Bagg, M.D. '47, died June 20, 2003, in Falmouth, Mass. He was 80.

Warren J. Kelley, M.D. '47, died June 30, 2003. He was 82.

Marjorie Paschke-Butler, M.D. '48, died August 8, 2003.

Edgar Kogan, M.D. '51, died August 31, 2003, in Elizabeth, N.J. He was 77.

William Michael Sullivan, M.D. '54, died September 7, 2003, in Branford, Conn. He was 75.

Alan Bruce Cooper, M.D. '55, died on December 29, 2002.

Thomas P. Comer, M.D. '59.

Myra R. Togut, M.D. '62, died June 30, 2003. She was 66.

Felice O. Woolrich, M.D. '77, died August 7, 2003, in Short Hills, N.J. She was 50.

Michael J. Dennis, M.D. '84, died June 24, 2001.

Diana Allan, M.P.H. '97, died August 7, 2003. She was 62.

Donald J. Sabrsula, M.P.H. '99, died April 12, 2003, in Red Bank, N.J. He was 41.

Faculty and Trustees

William N. Christenson, M.D., former Director of Graduate Medical Advising, Associate Dean and professor of clinical medicine, died July 14, 2003, in Bronxville, N.Y. He was 77. Dr. Christenson also served as co-director of employee occupational medicine at Westchester Medical Center.

Sheila M. Smythe, executive vice president of New York Medical College and dean of its School of Public Health, died November 4, 2003. (See page 4.)

Jackson E. Spears, a trustee of New York Medical College since 1943, died July 14, 2003, in New Canaan, Conn. He was 98. Spears received an honorary doctor of science from the College in 1993 and the Terence Cardinal Cooke Medal for Distinguished Service in Health Care and its William Cullen Bryant Medal, the College's highest honor.

Uma Verma, M.D., professor of obstetrics/gynecology and faculty member since 1989, died October 3, 2003. She was 63.

Joseph N. Walsh, Jr., a trustee of New York Medical College since 1989, died September 2, 2003. He was 68. During his tenure, Walsh served on the board's Executive Committee and chaired the Academic Affairs Committee.

Calendar of Events

Jan. 25, 2004 – Jan. 31, 2004
Alumni Association
21st Annual Winter Seminar
Embassy Suites Hotel Dorado Del Mar and Resort, Dorado, Puerto Rico

Sunday, May 23, 2004
Fifth Year Class Reunions
Alumni Center

Saturday, May 22, 2004
Annual Alumni Banquet and Awards Presentation
The Waldorf Astoria

Thursday, May 27, 2004
Commencement
Carnegie Hall

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