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SPRING/SUMMER 2012

CHIRONIAN

New York Medical College



INSIDE:

Social Media in Medicine

Researchers Stalk Cancer
and Cardiovascular Disease

Medicine + Music =
One Extraordinary Professor

CHIRONIAN

New York Medical College
A Member of the Touro College and University System

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ON THE COVER:

For practitioners and their patients, new media—consisting of social media platforms, portable applications ("apps") and mobile devices—are becoming a force to be reckoned with in health care today. Pew Surveys show that 44 million health care apps were downloaded in 2011. Our cover photo imagines a future that might not be so far-fetched. iPad image courtesy of www.3d4medical.com. Photo by William Taufic, ©2012, all rights reserved.

PARTING THOUGHTS FROM THE OUTGOING DEAN



On June 1, the day after New York Medical College celebrates its 153rd Commencement in Carnegie Hall, I will step down as dean of the School of Medicine. As I plan to tell some 362 graduates and their families and friends, the first time I went to medical school it took me only four years to get through; this time

it required sixteen. You do slow down as you get older, but in my defense, medical education is much more complex today.

The 174 newly minted physicians of the Class of 2012 matched in twenty medical specialties at strong teaching hospitals around the country. We are very proud of our graduates; they will enhance the reputation of New York Medical College wherever they go. The about-to-enter Class of 2016 is shaping up as I write this. From more than 11,000 applicants, 1,400 were selected to interview for admission to a class of 190. Their personal characteristics, diversity and academic credentials predict a very strong class, and we are glad to note that our robust applicant pool—among the largest in the nation—allows us to select the very best candidates.

The last two years have presented the College with challenges and opportunities. When Saint Vincent's Hospital in Manhattan closed in 2010, we were required to reassign 50 medical students to clerkships at other teaching hospitals and to place 300 "orphaned" residents in GME programs. It was a monumental challenge that was successfully met thanks to the cooperation of our teaching affiliates, Westchester Medical Center and Metropolitan Hospital Center. Helping to ease the burden were new or expanded affiliations with Keller Army Hospital at West Point, Lenox Hill Hospital in New York City, Phelps Memorial Hospital Center in Sleepy Hollow, N.Y., and Saint Joseph's Health Care System in Paterson, N.J. This complicated logistical exercise would not have been possible without the support of our clinical chairs, program directors and the good will of organized medicine. I want to express my gratitude to **Paul M. Wallach, M.D.**, vice dean for medical education, **Richard G. McCarrick, M.D.**, vice dean for graduate medical education and affiliations, and **Gladys M. Ayala, M.D., M.P.H.**, senior associate dean for student affairs, for playing key roles in the effort, which provided the opportunity to explore new models for the curriculum.

The transition from sponsorship by the Archdiocese of New York to the Touro College and University System was completed this academic year. This historic undertaking was carried out in the best academic tradition of collegiality, with input from faculty, administration and students. **Alan H. Kadish, M.D.**,

Touro's president, was appointed president of New York Medical College. Following a nationwide academic search, a candidate was selected to lead New York Medical College into the future. We are all very pleased to inform you that on May 1, **Edward C. Halperin, M.D., M.A.**, became chancellor for health affairs and chief executive officer of New York Medical College.

A graduate of Yale School of Medicine, Dr. Halperin completed an internship in internal medicine at Stanford and his residency at Harvard's Massachusetts General Hospital. He spent 23 years at Duke University, where he rose to become chairman of the Department of Radiation Oncology and vice dean of the School of Medicine. He also earned a Master of Arts in Liberal Studies there. Before coming to the College, Dr. Halperin was dean of the School of Medicine at the University of Louisville. I had the privilege of getting to know Ed when we were both serving on the Council of Deans. I can assure you New York Medical College is in very good hands.

Dr. Halperin will also serve as provost for biomedical affairs at Touro, and will serve as executive dean of the School of Medicine after I step down. With his ten years of experience as a medical school vice dean and dean, Dr. Halperin is eminently qualified to serve in this capacity until we begin a search for a new dean—probably in the coming academic year.

One of the first concrete (literally and figuratively) results of the Touro affiliation will be the construction of a new clinical skills center, which is expected to open in 2013. Watch for more news about this exciting development—and for more in future issues of *Chironian*, both about and by Dr. Halperin, a prolific writer and speaker who was chosen to deliver this year's Commencement address.

In my final weeks as dean, I received numerous calls and visits from colleagues and students stopping by to say goodbye and wish me the best. With great tact, I told them that I planned to stay on the faculty, teaching in the Department of Psychiatry and Behavioral Sciences. I have thoroughly enjoyed the honor and challenge of serving as dean and, prior to Dr. Halperin's arrival, as provost. The best reward is the assurance that during my tenure, with the unwavering support of the Board of Trustees, department chairs, faculty and administration, approximately 3,000 individuals received M.D. degrees from New York Medical College, and are now in residency or practice, shaping the future of medicine.

Sincerely,

A handwritten signature in dark ink, appearing to read "Ralph A. O'Connell". The signature is fluid and cursive.

Ralph A. O'Connell, M.D.

Immediate Past Provost and Dean, School of Medicine

An Expert at Probing



for Answers

Zbigniew Darzynkiewicz, M.D., Ph.D., develops the technology and methods for understanding cell proliferation, opening doors to more effective cancer treatment.

By Alicia M. Prater, Ph.D. '07

The “War on Cancer” marked its 40th anniversary in December—a long time in anybody’s book, but not long enough to come up with a reliable cure for any of the thousands of symptoms that use uncontrolled cell growth to thrive. President Richard M. Nixon began using the metaphor in speeches to support the National Cancer Act, a historic bill passed at the close of 1971 to initiate federal government spending for cancer research. Scientists and physicians could approach their studies from the laboratory or by clinically treating patients with medicinal remedies specifically designed around their genetic make-ups in a process now called translational, or bench to bedside, treatment. At New York Medical College and affiliated Westchester Medical Center, there are nearly 20 investigators with M.D. and Ph.D. degrees who have spent their entire lives waging the war. One of them, Zbigniew Darzynkiewicz, M.D., Ph.D., has been point man at the cellular level, achieving world renown for his dogged pursuit of answers to a puzzle: how to turn cancer cells against themselves, instead of taking more human lives.

When a cell is damaged, chemical signals are activated that drive the cell to die without affecting nearby healthy cells. Knowing how to control this process, known as apoptosis, could allow doctors to control tumor growth with little, if any, toxicity to healthy cells. Research examining the differences between apoptotic and normal cells uses techniques that differentiate between the molecular attributes of individual cells.

Dr. Darzynkiewicz has the distinction of being a pioneer in the field, a man who has been at the forefront of cell cycle, cell proliferation, and apoptosis research since before he joined New York Medical College in 1990. In addition to directing the Brander Cancer Research Institute (BCRI), he also holds professorships in the departments of pathology, medicine, and microbiology and immunology. His research, which has earned him international reputation, has been supported by grants from the NIH and the National Cancer Institute, including a prestigious MERIT award for his research on the effects of anticancer drugs on the cell cycle. He was also a recipient of a grant from NASA to develop new technologies for cell staining and analysis applicable to the micro-gravity conditions of the Space Station. He is the holder of eight U.S. patents, author or editor of 15 books, and has published nearly 700 peer-reviewed articles.

COLLEAGUES IN CYTOMETRY

Frank Traganos, Ph.D., professor of experimental pathology and of medicine and associate director of BCRI, has worked with Dr. Darzynkiewicz for more than three decades and co-authored more than 120 papers with him. “He has made numerous contributions to our understanding of the processes and mechanisms underlying cell proliferation, cell death, and cell damage by investigating processes at the single cell level,” says Dr. Traganos. In 1992, the two collaborated with other colleagues on a paper published in *Cytometry* describing the

molecular attributes that characterize apoptotic cells in flow cytometry. Now considered a landmark paper, it has been cited more than 1,500 times—and Dr. Darzynkiewicz has written a host of other papers with citations numbering in the hundreds.

He coined the term cell necrobiology, or the biology of cell death, and is credited with developing techniques for analyzing cell kinetics, tumor progression and cell senescence. He discovered the basis for identifying a cellular resting phase known as “quiescent” or G_0 . Although his name is not quite a household word, he is perhaps best known for developing the TUNEL assay (TUNEL stands for terminal deoxynucleotidyl transferase dUTP nick end labeling), which remains one of the most widely used techniques for measuring apoptosis. But his work goes beyond simply trying to understand cell suicide.

After earning his M.D. from the Medical University of Warsaw, Poland, in 1960, Zbigniew Darzynkiewicz earned the equivalent of a Ph.D. on the basis of a thesis on the teratogenic actions of insulin in the chicken embryo. He developed a fascination with cell biology “because the analysis of molecular mechanisms in individual cells reveals the mystery of life.” His early work focused on developing new methods for studying enzymes in individual cells using radioisotope-labeled enzyme inhibitors. Two years later he accepted a position at the Karolinska Institute in Stockholm, Sweden, which, he says, “was the Mecca for cell biologists because of the capability to measure DNA and RNA content in individual cells.”

ADVANCING METHODOLOGY

With the methods and equipment available at that time, Dr. Darzynkiewicz was capable of measuring 80 cells per day—a pittance compared to the thousands per second he measures now. Over the years the technology, and his capability, advanced with radioisotope labeling and autoradiography, and then with flow cytometry and fluorescent probes capable of identifying a variety of cell attributes. He expanded on each of these approaches to explore mechanisms underlying cell proliferation and the response of cells to anticancer drugs.

In the late 1960s it was time to head for the U.S. There he held positions at SUNY Buffalo and the Boston Biomedical Research Institute before moving on to positions in New York at Memorial Sloan-Kettering Cancer Center and Cornell University Graduate School of Medical Sciences, where he met Dr. Traganos. “I was fascinated—not so much by the technology as with the biological problems this technology could help solve,” he says. In their early work together at Sloan-Kettering, Dr. Darzynkiewicz and Dr. Traganos evaluated potential chemotherapeutic drugs *in vitro*, and their work today is still *in vitro*. Dr. Traganos explains that the cell-based

work is important, because “if replicated, *in vivo* the findings would have broad applicability, even though it can take a long time to see clinical applications.”

In the 1970s and 1980s, the understanding behind fighting cancer was to poison the malignant cells, which resulted in devastating side effects that made cancer a word spoken only in hushed tones of dread. During this period, Dr. Darzynkiewicz’s lab successfully characterized the mechanism of action of anti-cancer drugs that were effective at lower doses, resulting in less toxicity to the patient than most of the drugs in use at that time. One of those drugs was mitoxantrone, which is currently used in the treatment of metastatic breast cancer, acute myeloid leukemia and non-Hodgkin’s lymphoma.

GOING WITH THE FLOW

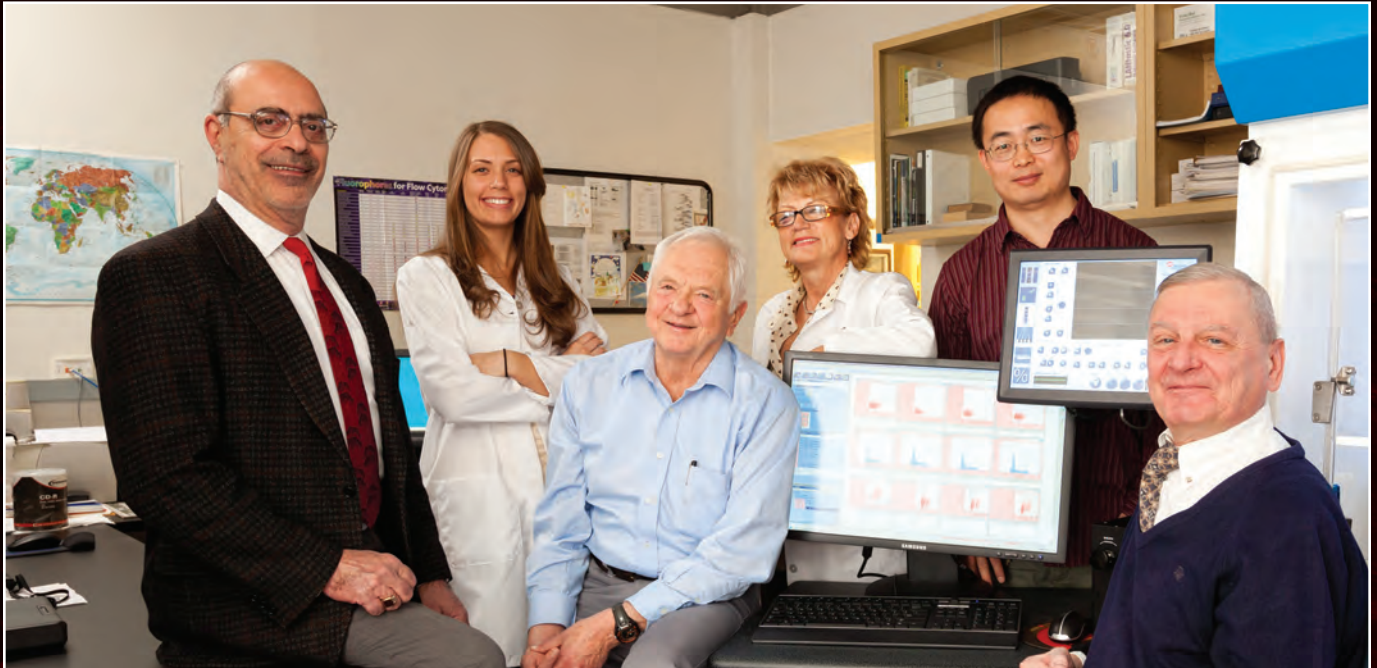
Shortly after being named director of the Flow Cytometry Core Facility at Sloan-Kettering he was recruited to New York Medical College. Zalmen Arlin, M.D., tapped Dr. Darzynkiewicz to head the College’s new Cancer Research Institute, founded the summer before to enable research in the etiology, classification, diagnosis and treatment of tumors. The key to this research would be flow cytometry, which allows variability among cancer cells to be evaluated in terms of their sensitivity to anticancer drugs. “The knowledge of such variability is essential in designing clinical treatments that may be successful in eradicating all cancer cells and thereby preventing cancer relapse,” says Dr. Darzynkiewicz.

With flow cytometric measurements, apoptosis moved to the forefront. When damaged, normal cells become senescent, but tumor cells do not have the same ability to respond. Lacking any damage control mechanism, they die via apoptosis, a pattern of events that is so orderly the process is often called programmed cell death. This difference can be exploited to increase the response to cancer treatment.

“New strategies are being developed and tested in pre-clinical studies to enhance the susceptibility of cancer cells to radiation and DNA-damaging drugs by increasing their propensity for cell suicide,” explains Dr. Darzynkiewicz. “Attempts are also being made to force cancer cells to undergo ‘cellular senescence,’ which permanently halts their reproductive capability.”

His lab is also studying the mechanisms in normal, non-tumor cells to understand resistance to DNA damage. The goal is the same as it has been for the past three decades: to ease the injurious side effects of radiotherapy and chemotherapy by reducing toxicity to healthy cells.

Speaking with Dr. Darzynkiewicz, one gets the sense that new avenues in basic research are closely intertwined rather than disconnected areas of study. In the past his work has integrated



The Darzynkiewicz team is well acquainted with the sophisticated technology that aids in his research. From left are Frank Traganos, Ph.D., M.D./Ph.D. student Elise McKenna, Dr. Darzynkiewicz, Dorota Halicka, M.D., Ph.D., Jiangwei Li, Ph.D., and Jan Kunicki. Not pictured is Hong Zhao, Ph.D.

chemotherapy with apoptosis, and now it integrates cancer biology with the process of aging.

Dr. Darzynkiewicz's work in DNA damage also spans several decades. He was the first to show that the genetic defect in DNA repair in xeroderma pigmentosum can be corrected. And in 2010 he published work on double-stranded breaks and the carcinogenicity of tobacco smoke. His laboratory also detected constitutive DNA damage signaling as a consequence of oxidative metabolism. He explains, "This oxidative DNA damage causes DNA replication stress which, when combined with cellular growth driven by the mTOR (mammalian target of rapamycin) pathway, is considered to be the major cause of aging and predisposes an individual to cancer." In addition to rapamycin, the diabetes medication metformin and vitamin D are potential agents for suppressing the mTOR pathway. This suppression could create leaner and healthier cells, a context of aging currently being studied in Dr. Darzynkiewicz's lab.

SETTING THE STANDARD

Without flow cytometry and similar techniques "the work Dr. Darzynkiewicz does would be decades behind," says Dr. Traganos. His colleague agrees. "Without these tools, our research would be impossible," Dr. Darzynkiewicz admits. His current work, supported by a grant from the NIH, aims to develop probes to study the DNA damage response and aging processes. He is already credited with developing probes identifying individual stages of the cell cycle to

determine the mechanism of anti-cancer drugs. And many probes used worldwide for detecting different stages of cell differentiation were developed by his lab, including acridine orange and BrdU incorporation into nucleic acids. "We are one step ahead because we've been developing the technology," he says.

The probes used in cytometry can include different molecules, such as fluorescence-tagged antibodies or stains. The antibodies used as probes can be specific for cell surface proteins or indirectly labeled by a secondary antibody. Regardless of the type of probe, they are important in a variety of research areas and have a greater impact over time as more about the role of a particular protein in the cell is understood. Dr. Darzynkiewicz's lab includes a cell sorter as well as a four-laser scanning cytometer, both with multiple channels for detecting different types of fluorescence.

In terms of sheer lab output, Dr. Darzynkiewicz ranks at the top of the fields of cell cycle, flow cytometry and apoptosis. He explains that his accomplishments in different areas of cell biology are due to the development of new methods for probing individual cells at the molecular level. With these methods cell growth, proliferation, carcinogenesis and response to anti-tumor treatments can be studied.

And in this, his thirty-third year of continuous funding, Zbigniew Darzynkiewicz, M.D., Ph.D., continues to probe cells for answers. ■

Pieces of the Cardiovascular Puzzle

An Huang, M.D., Ph.D., studies estrogen, blood flow and blood pressure, and how they fit together.

By Cynthia A. Read

Are you among the one percent? The question is not about what you may think it is. It refers to the percentage of Americans who enjoy ideal cardiovascular health, according to a position paper released by the American Heart Association last March. The figure is actually *less than* one percent.

Heart disease is still the leading cause of death—not only in the U.S., but in every major developed country. The myth that it is primarily a man's problem has also been debunked. In fact, more women's lives are claimed by cardiovascular disease than by cancer, chronic respiratory disease, Alzheimer's disease, and accidents combined. When factoring in deaths from stroke, diabetes and other diseases that are related to problems with blood flow and blood pressure, the

need for better understanding becomes even more critical.

An Huang, M.D., Ph.D., associate professor in the Department of Physiology, is studying one aspect of this challenge: the gender-specific regulation of endothelial function in arterioles, the tiny blood vessels that branch out from arteries throughout the body. Her research, supported by a series of grants from the National Institutes of Health, is part of a multi-faceted, multi-department program at the College that pairs basic science and clinical research in a quest to improve the outcomes in diseases that affect the heart and circulatory system.

FROM CHINA TO NEW YORK

The youngest of four children, An Huang grew up in the People's Republic of China. Both of her parents were medical

professors, so her interest in medicine developed early. But her path was temporarily derailed by the harsh reforms of the Chinese Cultural Revolution. At the time she graduated from high school, many students were being forced out of cities and effectively exiled to work in factories or farms, rather than going to college. In 1977, after these policies changed, Huang was among the first group of students allowed to enter college. She received her M.D. from Shanghai Second Medical University in 1982 and was directed by the government to enter the practice of general surgery.

By the time China began to open to the outside world in 1990, Dr. Huang had earned an M.S. and a Ph.D. in surgery. Feeling that she'd advanced in her profession as far as she could in her home country, she was eager to see what she



might learn elsewhere. Although she was still thinking about pursuing her clinical interests, she landed a position as a research fellow in the Department of Physiology in 1992. And, in what she calls “one of the luckiest moments in my life,” she met the late Gabor Kaley, Ph.D., who served for 37 years as chairman of the Department of Physiology. “He taught me everything about research,” she says. “It was my great honor to be able to work with Dr. Kaley. It would have been impossible for me to become an established scientist without him.”

The College brought Dr. Huang an additional gift: Dong Sun, M.D., who was also a product of the first wave after the Cultural Revolution, was then a Ph.D. student under Dr. Kaley. The two came halfway around the globe to meet on the Valhalla campus, and married in 1994.

After their daughter Angela was born in 1996, Dr. Huang brought her to work in her bassinet when she was only a month old so the family research projects could continue.

GENDER DIFFERENCES

Beginning with her first research projects with Drs. Kaley and Sun, along with Akos Koller, M.D., Ph.D., professor of physiology, Dr. Huang has investigated microcirculation—the term for the small blood vessels embedded in organs that are responsible for the distribution of blood within the organ tissues and for maintaining blood pressure. The arterioles carry blood to the capillaries and, like all blood vessels, are lined with a thin layer of cells comprising the endothelium. Among the many functions of endothelial cells are controlling the dilation and constriction of the arterioles.

Hypertension from overly constricted blood vessels increases the workload on the heart, leading to thickening of the heart muscle (myocardial hypertrophy), often followed by heart failure. Women have a bigger vasodilator response than men and, before menopause, a lower risk of heart disease. It appears that estrogen is responsible. When the ovaries are removed from experimental animals such as rats, the females have a reduced dilator response, but if the same females are given estrogen after ovariectomy, the dilator response returns.

In their initial studies, Dr. Huang and her collaborators explored the mechanisms of nitric oxide (NO) in dilating arterioles in rats and mice. When synthesized in the endothelium of blood vessels, nitric oxide is also called endothelium-derived relaxing factor, so named for its ability, when



“All the expertise I need is here at NYMC.”



Assisting Dr. Huang in her study of gender-specific regulation of endothelial function in arterioles are, from left: Dong Sun, M.D., Ph.D., Hongyan Wu, technician, and Caroline Ojaimi, Ph.D.

released from the endothelium, to signal the surrounding smooth muscle to relax. This dilates the vessel and increases blood flow, therefore decreasing blood pressure. The team showed that estrogen increases the expression and activity of eNOS, the enzyme that synthesizes NO. Genetically modified mice that lack the gene to produce eNOS, and therefore lack nitric oxide, are hypertensive—yet still, female mice have better regulation of blood pressure than males do.

So Dr. Huang's next step was to study how estrogen affects the dilation of blood vessels independent of the activity of nitric oxide. She discovered additional endothelial mediators were dependent on cytochrome P450 (CYP). She has also learned that different forms of CYP are responsible for the release of other vasodilators in rats, mice and humans. Because this sequence seems specific to females, Dr. Huang has begun to explore why these gender difference

exists, which genes are involved, what earlier influences come into play, and how changes in vasodilation, and therefore in the regulation of blood pressure, are related to aging associated with menopause.

“All the expertise I need is here at NYMC,” she says. She continues to collaborate with her husband and with co-investigator Caroline Ojaimi, Ph.D., assistant professor of physiology. She also receives support from Edward J. Messina, Ph.D. '73, professor, and Thomas Hintze, Ph.D. '80, professor and chairman of the Department of Physiology, as well as other members of the department. Dr. Messina says, “It has been a pleasure and an honor to watch the growth of Dr. Huang as an independent investigator. I am impressed with her research success, which has offered important clues to our understanding as to why premenopausal women are

somewhat protected from cardiovascular events. She has also provided significant evidence on the relevancy of the microcirculation in vascular biology and medicine.”

LOOKING AHEAD

Dr. Huang thinks that better understanding the mechanisms by which estrogen regulates the dilation of blood vessels could lead to improved treatment for menopausal women, and her research could point to a new therapeutic target to improve cardiovascular function where NO is deficient.

That is down the road, however. For now, Dr. Huang relies on a motto of sorts: “Be solid at every step,” she says, “keep going, and never give up.” It has served her well, not only in her years of research at New York Medical College but in the life journey that brought her more than 7,000 miles from Shanghai to Valhalla. ■

Our 2012 Commencement!



PHOTOS

1: Drs. Alan Kadish, Karl Adler, Edward Halperin, Francis Belloni, Ralph O'Connell and Robert Amler, and Mr. David Raab.

2: Chancellor and CEO Edward C. Halperin, M.D., M.A., gives the Commencement address.

3: Trustee Ronald F. Poe, President Alan Kadish, M.D., Honoree Karl P. Adler, M.D., and Board Chairman Dr. Mark Hasten.

4: Graduates from the Graduate School of Basic Medical Sciences.

5: Drs. Kadish, Hasten and Halperin.

6: Dr. Halperin with Rabbi Moshe Krupka.

7: Mace Bearer, Fredrick Z. Bierman, M.D.

8: School of Medicine graduates capture the excitement in Carnegie Hall.

9: Graduates from the School of Health Sciences and Practice.

MAKING A MENU FOR LIFE WITH *Music and Medicine*

{ STEPHEN E. MOSHMAN, M.D.,
GIVES EQUAL TIME TO HIS MAIN PASSIONS. }





By Marjorie Roberts

The Department of Medicine is a challenging and exceptional place to work. Many members of the faculty were recruited to the Valhalla campus by friends and colleagues from their previous lives. A case in point is Stephen E. Moshman, M.D., who radiates energy, caring and collegiality on a daily basis—weekends included. This not only enables him to perform an unusual variety of tasks for his job, but also allows him to have a second life filled with music. This spring, his dual passions for teaching and music became a perfect storm that honored Dr. Moshman for both his roles. He was promoted to Professor of Clinical Medicine, a title he will cherish in recognition of his 43 years of service to medicine—10 at the College and Westchester Medical Center (WMC)—and gratification for acknowledgement of his 30th anniversary year as founder, composer, and conductor of the Albert Einstein Symphony Orchestra, serving the Bronx community through the talents of 60 mostly non-professional musicians with a concert agenda each year.

Medicine inspires him to *teach*, for Moshman a sacred word that covers everything he does for the young heroes who follow in his path. As director of the third-year medicine clerkship, he

has mentored students who are learning to make critical decisions that will impact how they practice medicine the rest of their lives. “My greatest passions are medicine and music, but I am ardent about a lot of things,” he admits, and he is not exaggerating. The mere mention of baseball, history and astronomy causes his eyes to light up and his voice to rise in intensity.

You can only wonder how he is able to find the spiritual wherewithal and physical strength to staff, rehearse and conduct the Einstein orchestra in four concerts a year. Ask him, and this Renaissance man replies, “I can do it because I am a very happy man.”

BEING HAPPY

How happy is he? Enough to spar with the colleague who recruited him from Einstein and its affiliated Montefiore Hospital: William H. Frishman, M.D., the Barbara and William Rosenthal Professor and Chairman of Medicine. They were both faculty members at Einstein, where Moshman spent 30 years before coming to the College. They take their sworn allegiance to differing New York baseball teams as set in stone, yet their

IN BOTH THE CLASSROOM AND THE ORCHESTRA PIT, STEPHEN MOSHMAN DICTATES WHAT HAPPENS FROM THE MOMENT HE WALKS INTO THE ROOM.

love of the game is reason enough to sustain their friendship. "Baseball is the only sport. I come alive when pitchers and catchers report for spring training," says Moshman, a former Brooklyn Dodger fan. He is ready to take on another frustrating year as a Met supporter, but he wouldn't want it any other way.

Robert G. Lerner, M.D., vice chairman of the Department of Medicine at the College and chief of hematology at WMC, shares Moshman's double appreciation of teaching and music. The Moshmans and Lerner, who have enjoyed many performances of the Einstein Orchestra, also attend Lincoln Center events together. "I have been very impressed with everything he's done," says Dr. Lerner, although it is Moshman's work ethic that draws Lerner's greatest interest and admiration. "I got to know him better when he and I began teaching second-year students along with his brother, Eliot Moshman, [M.D., clinical assistant professor of medicine], an internist in White Plains who plays French horn in the orchestra."

There is also Norma Moshman, Stephen's wife, who is coordinator for the Internal Medicine Residency Program. Together the Moshmans make up a sort of parents-by-proxy situation, which makes it seem like there are Moshmans everywhere. Stephen claims he never repeats a task two days in a row, but certain responsibilities are his alone. He teaches "Foundations of Clinical Medicine," a mandatory course for first- and second-year students. And there is "Harvey," a favorite mechanism that involves an inventive way to teach, sometimes using musical sounds for emphasis.

AN APPRECIATIVE COLLEAGUE

The Harvey Cardiopulmonary Patient Simulator is a digital life size model of a patient with lots of heart problems, which can be dialed up at will. Cardiac pathology and proper diagnosis are the basic skills that Harvey helps teach to third-year students, pre-internship students, interns and residents.

Among Dr. Moshman's other purviews are the residency program in internal medicine where he is deputy director,

the Adult Primary Care Clinic and his teaching duties in the Pre-Internship Program, formerly called the Fifth Pathway. As to the variety of situations in which he finds himself, Dr. Moshman expresses his satisfaction with volunteering for unscheduled teaching assignments by insisting that, "I have always considered myself a militant non-specialist. I accept these assignments with enthusiasm. After all, teaching medicine is 75 percent of what I do and I absolutely relish it all." Dr. Frishman concurs: "We go back 40 years. Currently, every July, he and I share the welcoming lectures for the new clerkship students and we teach together on the wards at WMC. He is also very active in recruiting house staff for Valhalla."

When pre-concert time rolls around, you wouldn't know from his disposition that he was stressed. Norma Moshman, who sounds as laid back as the husband she is describing, offers this assessment:

"For the most part he is very relaxed. He doesn't worry. He may have trepidations about a certain passage the orchestra is having trouble with, but in 30 years the orchestra has never failed him." Any changes planned for season 31? "He doesn't wear tails and the musicians just wear black jackets, although at the March concert the orchestra wore what is called Broadway Black. Stephen wore a silver tie and they all really looked good. Now they are considering wearing Broadway Black all the time."

NATURAL BORN TEACHER

In both the classroom and the orchestra pit, Stephen Moshman dictates what happens from the moment he walks into the room. In between he gets as close as he can by becoming an excellent teacher who, like any good performer, makes things exciting. A slew of teaching awards attest to his tremendous teaching talents and famous sense of humor. But can he continue to do *everything* himself? With the orchestra, this encompasses making the selections to be played (many are his own compositions), choosing the soloists and even writing the program notes before he rehearses the musicians and conducts the day of the performance. He has been

immersed in this medical/musical arrangement all his life, and there is one doctor/musician who has been a part of most of it.

Etta Eskridge, M.D., Ph.D., now an assistant professor of medicine at the College, was 22 when she met Steve Moshman. Both had earned their undergraduate degrees at the University of Rochester; she chose Einstein for medical school while he selected the University of Buffalo. She found out he was looking for musicians for a new orchestra he was assembling and she played the viola, a rare commodity in terms of slots to be filled. The rest, since 1982 and then some, is history. Four years ago Dr. Moshman recruited her to join Westchester Medical Center, where she is a hospitalist and director of palliative care.

"He is like a savant," she says of Moshman. "He is a walking encyclopedia of knowledge, and he writes the best program notes ever...He has given all of us an unbelievable gift—the opportunity to play music—and we do a pretty good job." This

past season there were six players from New York Medical College; about one-third of the group are medical students, faculty and house staff, and the rest are from the community. Dr. Moshman believes his is one of the longest running community orchestras in the city, and "certainly, the only medical school-affiliated orchestra."

Dr. Moshman has established that even in his spare time, he is devoted to the students who are his audience—in and out of hospital settings. Just as he learned to play the violin from his father, his first teacher who made music such an integral part of his upbringing, he makes himself available to those who need help—even the ones who come around only when he hosts his annual pool party at his Dobbs Ferry, N.Y., home (which, by the way, was designed by a student of Frank Lloyd Wright). The party is Dr. Moshman's way of plying his guests with art and the finer things in life. He has no ulterior motive for this gesture, and no message is intended or implied—other than to enjoy life and art, which are all around us. ■



Is MEDICINE Ready for Social Media?

ITS PROponents claim the use of new media in medicine is a boon, causing shifting paradigms, seismic changes, and better connections online and off.



By Melissa F. Pheterson

Twitter, tablets, texting: these are means and methods of social media now surging in popularity. They are also revolutionizing medical practice and education, including at New York Medical College. From three-dimensional views of anatomy to classroom discussions sparked by text-messaging, the wealth of material summoned by a few finger-taps helps educators share and receive critical findings, more fully engages students with the curricula, and helps doctors build stronger connections, online and off, with patients.

"Why am I on social media? Because I'm social," says Howard Luks, M.D. '91. The associate professor of orthopedic surgery at the College and chief of sports medicine and arthroscopy at Westchester Medical Center likes to add, "That means sincere, open, collaborative, interested, authentic, and likeable." (He'll admit the acronym is not original, but it's been re-tweeted many times behind his Twitter handle, @hjluku.) Dr. Luks writes several blogs on orthopedic surgery and social media, has 5,000 Twitter followers, and offers iPads in the exam room with videos to educate his patients. "Why confine my expertise to the four walls of my practice?" he asks.

For doctors and patients alike, social media is triggering a paradigm shift in health care. Pew Surveys show that 17 percent of mobile phone users are

using them for health care purposes, and 44 million health apps were downloaded in 2011. Even the prestigious Mayo Clinic in Minnesota has started a Center for Social Media to train physicians in social media strategy.

"When I first started to meet with groups about social media in medicine, their eyes were rolling," recalls Dr. Luks. "They thought it meant posting what you had for dinner or checking in at Starbucks. But as in all professions, the immediacy and interactivity of social media helps us clinicians humanize our presence and foster our relevance in a world that's increasingly going online.

"They're talking about us, talking about health," he declares. "Now it's up to us to jump into that conversation. If we don't control our own message, others will define who we are."

The College has been doing its part to join in. In April, the annual Student Physician Awareness Day (SPAD), organized by first-year medical students, was devoted to exploring "iMedicine: The Role of Social Media in Medicine," with renowned experts convening to discuss how social media is altering the nature of patient care, medical education and community outreach. The event was well-attended, and in social media (or SoMe) parlance, there was a great deal of chatter and following activity that nudged the College's profile a bit higher in the Twittersphere.

Among the speakers was Kent Bottles, M.D., who serves as the social media liaison for the Association of American Medical Colleges. "Most older medical educators like myself are 'digital immigrants' who still speak the new language with an accent," says Dr. Bottles, a Senior Fellow at The Thomas Jefferson University School of Population Health in Philadelphia. "It is the medical students who are the digital natives that are really leading the way. I think it's relevant that the topic was introduced [to NYMC] at a medical student conference and not by faculty."

TRANSFORMING MEDICINE

Resources for doctors. Smart phones and tablets, equipped with task-specific programs (called "apps"), make a wealth of clinical information and references readily available on a portable screen. Among College faculty, popular apps include Epocrates RX, a mobile drug reference database, Medscape, a medical reference guide, and Diagnosaurus, a database of diseases and symptoms.

Resources for patients. Social media is changing the doctor-patient dynamic: how doctors reach out and what kinds of information patients bring into the office or hospital. Apps can help doctors engage with their patients by demonstrating procedures using 3-D views of anatomy, displaying test results, and sending text message reminders of appointments and vaccinations. In between office visits, doctors and



Photo by Susan Woog Wagner



patients can communicate directly via text or Twitter messages, or even brief video messages, the form preferred by more than half of the patients Dr. Luks surveyed. “Email,” he says, “is passé.”

Telemedicine, the concept of caring for patients remotely, is also gaining ground. Dr. Bottles cites research predicting that by 2016, three million patients will be monitored via their smartphones, rather than in hospitals, for chronic conditions like heart disease and diabetes.

Social media can empower the patient without imperiling the doctor, stresses Dr. Bottles. “Some patients want to record their interactions during office visits, but many physicians are reluctant to embrace social media because of fears of malpractice suits,” he says. “And yet, studies have shown that patients retain only 50 percent of what the doctor tells them during an office visit, and half of what the patient *does* remember is remembered incorrectly.”

So instead of fearing the patient who comes in with reams of information printed from the Internet, doctors can seize the chance to guide patients as they search for reputable articles, e-mail information after appointments, or maintain a blog or website with concise answers to common questions. Says Dr. Luks: “Some doctors will shy away from a patient coming in with material they’ve Googled, whereas I’m turning on the iPad, hitting Google, saying ‘There are 600 articles on medicine published every day; let’s see if anything was posted today that’s pertinent to your case.’”

Resources for both. Increasing numbers of clinicians and researchers have now launched Twitter accounts, whereby they can issue brief messages called tweets to a group of followers, comprising doctors and patients alike. Tweets might include links to new medical findings, spotlight topics posted by other experts, or offer advice on medical issues or healthy living. More than 1,300 physicians have now registered their Twitter feeds on twitterdoctors.net, and communities are emerging online among doctors (Doximity.com, a social networking site for physicians) and patients (PatientsLikeMe.com, a forum for people with similar health conditions to support and advise each other).

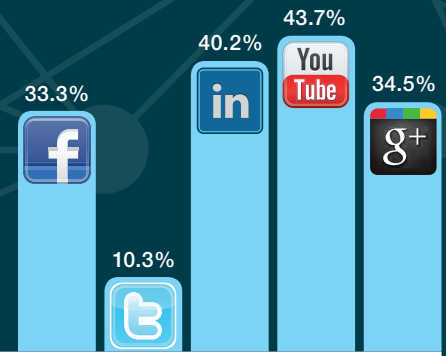
BEYOND THE CLASSROOM

One morning before class, Daniel Peters, M.D., F.A.C.S., assistant professor of cell biology and anatomy, noticed his students deeply absorbed in their phones. “It was clear that almost everyone was texting away furiously, trying to get out that last message before class started,” Peters says. He also noted these same students hadn’t yet responded to emails he’d sent a few days earlier. “I realized that email was obsolete to them: in their world, it served no purpose and it was too slow and inefficient for real-time needs.” But a text or tweet would pop up instantly on their phones, compelling them to respond. As an experiment, Peters began to send messages to the class via Twitter, posing questions and offering points for reflection to spur critical thinking and discussion among his students.

“Twitter allowed me to put ideas in their heads outside of class, when they might be together in some social situation, and use the opportunity to have an open and free discussion,” he says. “I was also trying to show that they always had to be thinking—the thought process does not, and should not, stop as soon as class is out.”

IN A FACULTY SURVEY, 85 RESPONDENTS WERE ASKED:

Which social media platform do you use: Facebook, Twitter, LinkedIn, YouTube or Google+?



Among students, the study groups known as “journal clubs” now benefit from instant access to groundbreaking news in medicine, with Twitter alerts outpacing the snail’s-paced peer-review model that produces journals.

“Physicians and researchers in far-flung locations can discuss articles and exchange knowledge instantly,” says first-year medical student Neil Shah, chair of the committee that organized SPAD. “The flow of information is the biggest way social media has helped improve academic medicine.”

For institutions like New York Medical College, social networking sites also provide an opportunity to reach out to prospective students, current students and alumni. The Office of Public Relations, responsible for the College’s official social media presence, is now encouraging other departments and groups to establish their own presence in social media, using guidelines posted on the College’s website.

“Curating and sharing information with an audience of followers on social media is a way to engage people, and get them talking with us about something that is of interest to them,” says Donna Moriarty, M.P.H. ’04, associate vice president of communications, who

posts Twitter and Facebook updates on behalf of the College several times per week. “The institution becomes more real to them, more personal, through social media activity. It’s a way to spread news to our students and employees about what is happening here, and offers a window for prospective students, parents and alumni to peer through and see what we’re up to.”

RED FLAGS

In the uncharted waters of social media, new ethical and legal dilemmas can pose unexpected hazards. Should doctors or professors initiate and accept “friend” requests from patients or students? What if a patient solicits medical advice online that ends up flawed? What if a medical student or resident posts descriptive comments of a clinical experience, inadvertently violating HIPAA rules governing patient privacy? These issues are a “major concern,” says Shah, but doctors, professors and institutions can protect themselves by educating students and patients about the perils of social media. “Anyone using social media,” says Kent Bottles, “needs to think about the permanent and public nature of anything on Twitter and Facebook.” Howard Luks emphasizes that he doesn’t treat patients via social media, only shares information. The

American Medical Association has released social media guidelines suggesting that doctors use the maximum privacy settings for each mode of online communication, and consider using separate profiles for personal and professional use. Many hospitals and practices now raise the issue with patients as soon as they check in, presenting a contract with waivers or disclaimers.

“Once I learned about social media, I realized the user has controls,” says Anthony Sozzo, M.A., M.S.Ed., associate dean for student affairs, who maintains a popular page on student financial planning, and who has produced podcasts and YouTube video clips for, and with, the students. “You can still maintain a professional presence on social media.” That synthesis of clinical excellence and social media was among the major objectives at SPAD, with a live Twitter feed enhancing discussion and debate even further.

“Because of SPAD, the College will gain a significant amount of attention, kudos and support,” says Dr. Luks. If it means dissolving the barriers to communication, then New York Medical College has added a few more instruments to its black bag. ■



BEYOND SKIN DEEP

In learning to treat the skin—the mirror of internal diseases—dermatology residents inject dermatologic care into a host of other specialties.

By Nelly Edmondson Gupta

In 1993, Bijan Safai, M.D., professor of dermatology, took over as chairman of the Department of Dermatology at New York Medical College in Valhalla. Several years later, he moved the residency program from Westchester to upper Manhattan's Metropolitan Hospital Center, a public hospital and College affiliate that treats many underserved patients. This move turned out to be a boon for both the residency program and the patient population it serves.

"I brought the residency to the patients," says Dr. Safai. By that he means that taking care of a more diverse, inner city population gives the future dermatologists under his tutelage an opportunity to treat the full spectrum of clinical diseases. The residents care for everything from acne to leprosy to *toxic epidermal necrolysis* (TEN), a potentially deadly skin disease that usually results from a drug reaction.

There are other benefits as well. "One of the great things about working at Metropolitan Hospital is that we see patients from varied ethnicities," says first-year resident Lavanya Krishnan, M.D., one of 10 residents currently enrolled in the College-sponsored program. Many skin diseases, she explains, present very distinctively in different types of skin. For example, rashes that appear on deeply pigmented skin tend to be more subtle or textured. If a doctor isn't well-versed in these skin differences, making an accurate diagnosis can be especially challenging.

Residents' learning touches on the entire spectrum of medical dermatology, including immunologic diseases of the skin, cutaneous lymphomas and sarcomas, drug eruptions, genetic syndromes affecting the skin, and dermatologic emergencies. They also learn how to perform laser surgery, Mohs micrographic surgery, blepharoplasty and skin cancer removal. In short, they learn it all. "We could write a textbook" with the

experiences she and the other residents gain from treating patients, says Jodi Langer, M.D., who serves as co-chief resident with William Rietkerk, M.D.

MANY CALLED, FEW CHOSEN

Considered among the nation's best, the New York Medical College dermatology residency program is very competitive. From more than 300 applicants, just three are chosen annually. To be selected, says Dr. Safai, a resident "must have an intelligent mind and be able to quickly retrieve and grasp a lot of information." She or he also must be a clear thinker, a good writer and an effective "people person." Finally, says Dr. Safai, residents must be able to learn independently *and* be good team players.

In fact, the competition for dermatology residency slots has become increasingly stiff nationwide. "When I took over, residents were mostly selected from the New York area," says Dr. Safai. "Now we get the best applicants from all over the country."

In addition to working with a wide variety of interesting patients, one of the best things about the NYMC program, say the residents, is the solid grounding in both clinical work and pathology. "One of the things that initially attracted me to NYMC was this clinical-pathologic correlation," says first-year resident James Highsmith, M.D. In other programs, he explains, residents may learn to read pathology slides, but not necessarily the slides they themselves have prepared from biopsies. "It's nice to see the clinical picture—your patients—and then review their biopsy slides under the microscope," says Dr. Highsmith. "It really helps you learn and remember."

TEACHER, TEACH THYSELF

Yet another draw for the NYMC program is the fact that all dermatology residents have plenty of opportunities to teach as well as learn. Each week the residents complete multiple academic duties, including journal reviews of medical and surgical dermatology, Kodachrome sessions (clinical slides used for diagnostic practice), pathology training and book review lectures. The residents take turns delivering lectures to their peers on topics in the main textbook. In order to answer questions and provide background and context, the designated lecturer must go beyond the text, thereby deepening his or her knowledge base.

The dermatology residents also teach medical students and give lectures to other departments. "Medical students have a limited exposure to dermatologic disease during med school, but many other specialties, such as internal medicine and pediatrics, need significant knowledge about the skin," explains Richard McCarrick, M.D., vice dean for graduate medical



Dermatology director and department chair Bijan Safai, M.D., above, says the highly competitive program at New York Medical College admits only three new residents per year. Residents Lavanya Krishnan, M.D., and William Rietkerk, M.D., prepare to treat a patient at Metropolitan Hospital Center.

education and affiliations. "So they rely on the dermatology residents to build their knowledge of skin diseases."

Although relatively few patients are admitted to hospitals solely because of skin conditions, they may have skin problems in tandem with other disorders. For example, a psychiatric patient may be admitted in crisis, and a subsequent physical exam reveals a rash or severe lesions on his lower back. Having dermatology residents available for consult enables the psychiatric team to provide comprehensive care. "There is a tremendous benefit to having a derm residency in a hospital that goes far beyond treating patients who present with primary skin problems," says Dr. McCarrick. "Throughout the hospital, having derm residents and attendings is clinically and educationally very helpful."

The residents truly must learn to master the art of diagnosis in order to recognize underlying systemic conditions. In fact, the residents and their supervising attending physicians provide dermatologic consultation for all inpatient services and ambulatory care programs. They have to know the basics of internal medicine, pediatrics, neurology, surgery and psychiatry to be able to competently integrate dermatologic care into all of these fields.

IT'S NATIONAL AND PERSONAL

Indeed, dermatology has been getting more respect from all quarters lately, and is now *the* most competitive specialty. In recent years, many American medical school graduates have

been migrating away from primary care and general surgery. As a recent article in *The New York Times* noted, dermatology—like plastic surgery and otolaryngology—provides relatively controllable hours, autonomy, and improved quality of life, and has the added benefit of being the kind of doctor patients actually like and want to visit.

Second-year resident Kathryn Russell, M.D., says that while she was growing up in Sarasota, Fla., her dermatologist "was the only doctor I enjoyed going to." Every year, her mother took fair-skinned, redheaded Kathryn to a dermatologist for a full-body skin exam; the Russells have a family history of skin cancer and Kathryn is at increased risk. Instead of dreading these medical visits, she actually looked forward to learning about her skin, hair and nails during her examinations. Dermatology "is a very fulfilling field because patients really appreciate you," she says. "You treat them, and they look better—and feel better about themselves."

HAVING SKIN IN THE GAME

"There's a whole list of reasons to go into dermatology," says second-year resident Robert Lott, M.D. He points out that research in the field of cutaneous immunology and molecular biology of skin is moving at a rapid pace. "As a result, we are developing a better understanding of the immunologic and molecular pathogenesis of skin disease leading to optimized diagnosis, management and treatment of patients," he says.

These new developments are helping researchers create “designer drugs” for the treatment of skin-related autoimmune diseases, like psoriasis. “Many systems collide in the skin,” notes co-chief resident Langer. “The skin is a mirror of internal diseases, with sequelae from immunologic, neurologic, infectious, endocrine and neoplastic processes.” This “collision” is evident in many systemic diseases, such as lupus, some cancers, hypercholesterolemia and liver disease, which often show up first on the skin. In other words, adds Dr. Langer, “The research we’re doing on skin may have greater applications beyond the skin.”

Each year, every NYMC dermatology resident must undertake an intensive research project. This year, they are studying a broad array of topics, including polymorphisms of non-melanoma skin cancers, skin stem cells, which can be

used for growing hair and curing some of the blistering diseases of childhood, and skin manifestations of graft vs. host disease, a serious condition that can develop after bone marrow transplantation.

“Dermatology is a rapidly evolving field, and cutting-edge in terms of new technology,” adds Dr. McCarrick. “Dermatologists are in great demand, and there’s a shortage in many parts of the country.”

Drs. McCarrick and Safai believe this group of residents will become experts and leaders in the field. Every year, says Dr. Safai, he continues to be pleasantly surprised. “Our dermatology residents are committed and diligent, and they are here to learn. They study hard, help each other and work well as a team.” ■

Residents gather weekly for peer-teaching sessions. Clockwise from the presenter, Pantea Hashemi, M.D., are Jodi Langer, M.D.; David Weinstein, M.D.; Jennifer Leininger, M.D.; Lavanya Krishnan, M.D.; Robert Lott, M.D.; William Rietkerk, M.D.; Jennifer Vickers, M.D.; Kathryn Russell, M.D.; and Bijan Safai, M.D., professor and chairman. Not pictured is resident James Highsmith, M.D.



A REAL HONOR

In February, Dr. Safai was elected president of the Physician Affiliate Group of New York (PAGNY), made up of more than 2,500 physicians and health care professionals who provide services to the half dozen hospitals that comprise the New York City Health and Hospitals Corporation (HHC), the largest public health system in the U.S. “It is quite an honor for me to be trusted by my colleagues and elected as president of such an important organization,” Dr. Safai says.



*John Nunez,
Izuchukwu Ibe
and Andrea Love:*

Student Athletes Compete to Stay Mentally and Physically Fit

By Andrea Kott, M.P.H.

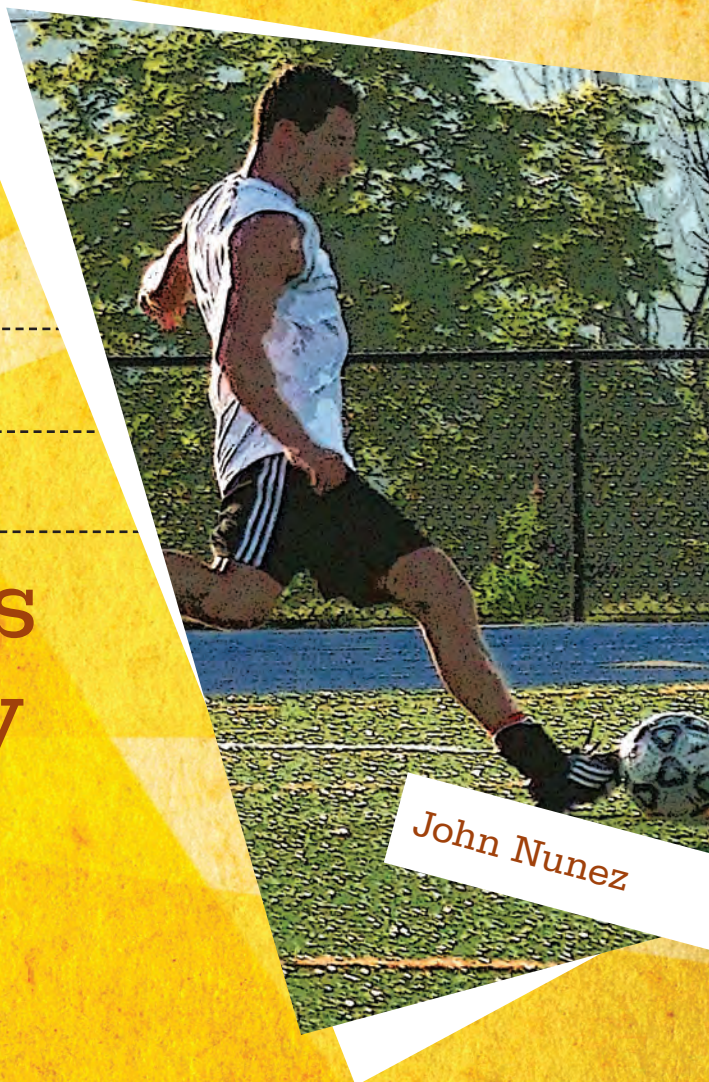
The biggest disconnect in preparing for a career in the health sciences may be how unhealthy the journey can be. Too little sleep, too much fast food and not enough exercise are the pillars of life for medical students and graduate students. That is, unless they are so committed to fitness that their success depends on it.

John Nunez, Izuchukwu Ibe and Andrea Love are such fitness-philes. They don't jog or take the occasional Zumba class. They train for marathons, compete in semi-pro soccer tournaments and practice black belt judo. They would no more miss a workout than they would cut a class, clinic or lab.

JOHN NUNEZ, SOCCER *School of Health Sciences and Practice*

As John Nunez tells it, two things saved him during his first semester as a doctoral candidate in physical therapy: the camaraderie of classmates and playing semi-pro soccer. "It was the hardest academic semester of my life," the second-year PT student says, recalling a schedule that included neuroscience, physiology and exercise science. Then, two months before school started, he was invited to try out for the Cosmopolitan League—the Cadillac of amateur soccer leagues. It was a fantasy come true for the lifelong soccer player, who had always dreamed of playing college-level soccer (he played Division 1 at College of the Holy Cross) or going into medicine.

"I'm playing at a higher level than I ever thought I'd play," says Nunez, who now competes among world class players. His level of commitment might seem incompatible with doctoral studies. Indeed, Nunez says some classmates scratch their heads when he closes his books and leaves for practice. Yet for this 27-year-old, who is both exuberant and calm, there is no choice. In the first place, playing soccer keeps him academically focused. "It keeps you on top of your school work," he says. Second, being fit is critical for physical therapists, who often must lift patients heavier than themselves and are uniquely positioned to inspire patients toward greater levels of health. "As a medical professional, you should demonstrate fitness and good health to patients," Nunez says.



John Nunez



New York City Marathon photo used with permission from brightroom.com.

Izuchukwu Ibe

Nunez has always been fascinated by the human body and its capacity for endurance. Although he once envisioned following in the footsteps of his orthopedist father, his own athleticism sparked his interest in the more hands-on, preventive approach of physical therapy. "Once you get injured a few times and undergo PT, you realize how you can use your knowledge to be safe and prevent injuries," he says. Conversely, Nunez the athlete is always thinking

"If we're going to tell patients to be healthy, then we have to be healthy," he says. "Just saying you can't do it isn't a reason not to do it."

about pushing physical limits. "As a physical therapist, you always wonder if a patient is at risk. How far can they push themselves?"

Nunez lives to push himself. Twice a week at 9 p.m., after eight hours of school, he drives to Queens to practice with his team, the New York Greek Americans. The exhaustive workout includes more than two hours of fast runs, sprints and interval training, drills tailored to build lung endurance and the body's ability to recover quickly. "It's about [seeking] the maximum of what your body can do," he says. He plays two games on weekends, although he tries not to compete when his schedule includes clinical rotations, because an injury could prevent him from performing necessary physical tasks. Throughout the year, Nunez keeps up with training and practices, picking up games with indoor soccer leagues at home in Fishkill, N.Y., playing club soccer with other students on campus, lifting weights in the College fitness center and training for marathons.

The regimen keeps this emerging physical therapist in top physical shape, disciplined and focused. Plus, it just feels good, he says, "knowing I can do something like that and still maintain the grades." Not that he would have it any other way. "As an athlete, excuses don't exist for you."

IZUCHUKWU IBE, RUNNING School of Medicine

Excuses don't exist for Izuchukwu Ibe either, although the second-year medical student admits his runner's discipline developed only recently. "The mental part of pushing myself was there, but not in running," says the Nigerian native, who played soccer for SUNY Albany, where he entered as a freshman at age 16. "I always told myself, 'Running is boring, I'm never going to run past six miles.'" But last summer, just one month into his first year of medical school, the 22-year-old traded his soccer cleats for running shoes to train for the New York City Marathon. Along the way, he discovered he was capable of more than he ever knew.

Ibe had never run more than three or four miles a couple of times a week to stay in shape. Then he met Debra Gerson, M.D., medical director of the Open Door Family Medical Center, a College affiliated clinic. Dr. Gerson was his supervisor during a summer program that exposed high school students to the medical field. A cancer survivor, she described the thrill of running her first marathon. Her feat inspired him to give it a try.

At the beginning of his second year, with only three months to train and a mandate to raise at least \$2,000 for a

sponsoring charity, Ibe harnessed his medical student's mettle. He started running three to five days a week, and lengthened each run by one- to three-mile increments. Fortunately, his workouts provided a valuable respite from studying. "Training for the marathon was my getaway from school," he says.

But school got hectic and by marathon day, Ibe had not managed to train beyond 18 miles, the point in the actual race when his legs almost buckled. That's when he noticed other runners. "I saw a runner with one leg, racers in wheelchairs, runners who were overweight, skinny, young and old," he says. They inspired him. Four hours and 38 minutes later, Ibe finished the race. He also raised \$3,000 for Shoe4Africa, which builds children's hospitals in Kenya. "I crossed the finish line and I thought, 'I'm signing up for another one.'"

As other runners have inspired Ibe, who is set on practicing orthopedics, so does he hope to inspire patients. "If we're going to tell patients to be healthy, then we have to be healthy," he says. "I said, 'I can't run more than six miles' and I ran 26. I said 'I can't raise \$2,000' and I raised \$3,000. Just thinking you can't do it isn't a reason not to do it."

ANDREA LOVE, JUDO **Graduate School of Basic Medical Sciences**

For Ibe and Nunez, training for athletic competition is about staying mentally sharp, physically fit and pushing personal limits. For judo black belt Andrea Love, a Ph.D. candidate in the Department of Microbiology and Immunology, it is also about increasing productivity and releasing stress. Working out is non-negotiable for Love, even if it means sacrificing a little sleep. "You reach a saturation point," she says of the long hours she spends in the lab. "If you take an hour-long break to do anything, it can really get you back on track."

Judo puts Love back on track. Four to five nights a week, she drives to North Bergen, N.J., where she practices a repertoire of skills that include throwing opponents, pinning them down, choking them (to unconsciousness if they don't forfeit the match) or twisting their elbow.

With her long dark braids, chic black eyeglasses and a tiny stud in her nose, Love, 24, doesn't look like a judo champion, let alone a nationally certified coach with the U.S. Judo Association. She clearly gets a kick out of that. "Dude, I *fight* people," she says, displaying her unmanicured nails. "If I leave practice and I don't have any bruises, I feel like I didn't work out hard enough."

Growing up in Norwich, Conn., Love started studying judo at age 4. "I hated ballet," she recalls. "I was a tomboy—always in the woods, building tree houses, collecting bugs. I was a feisty little kid," she says. She started competing at 5, was a nationally ranked champion by 15 and a black belt one year later. Although injuries kept her off the competition circuit during her undergraduate years at SUNY Stony Brook, she is preparing to return. This means her days in the lab, where she studies the immune response to infection with *Borrelia burgdorferi*, the bacterium that causes Lyme disease, are especially long. But she doesn't miss a workout, which typically includes running

(she has run marathons and half-marathons), strength training and practicing on the judo mat. If she can leave mid-experiment to work out, she will, sometimes returning to the lab as late as 11 p.m. to finish. "When you've been working on an experiment for two months and it fails, it's really nice to beat up on somebody," she kids. "It definitely helps my mood and productivity."

After she graduates in two years, Love hopes to work in the field of infectious disease for the Centers for Disease Control or the National Institutes of Health. Wherever she lands, she says she will keep practicing judo. "It's an awesome full body workout and incredible stress relief." ■

Andrea Love



"I was a tomboy, always in the woods, building tree houses, collecting bugs. I was a feisty little kid," she says.

Investigating Epilepsy: Calming the Electrical Storm

By Chirag Upreti

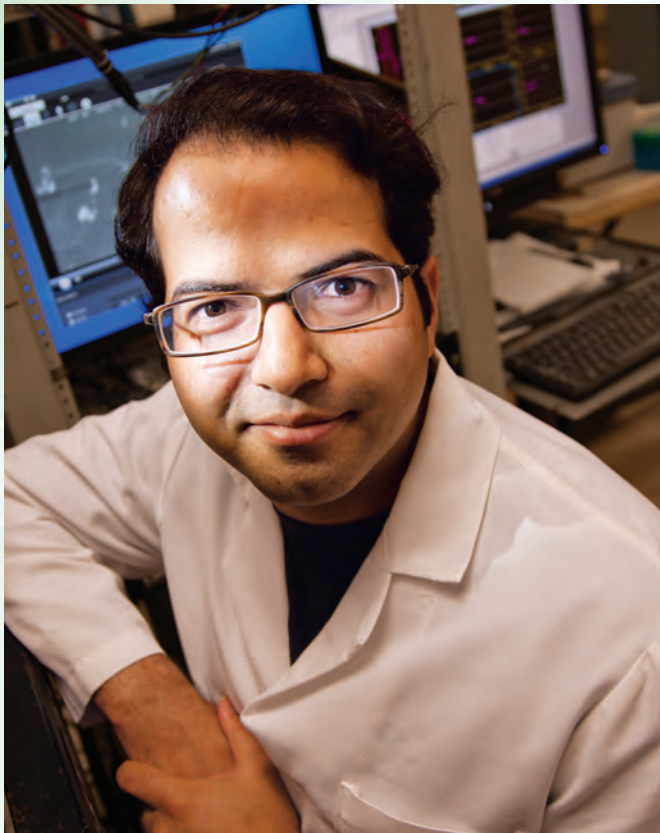
Epilepsy is a debilitating neurological disorder that affects about one percent of the world's population. In the brain, neurons communicate with one other at specialized junctions called synapses. Electrical signals that travel down the presynaptic neurons release a chemical messenger, or neurotransmitter, which then diffuses and activates its receptors on the post-synaptic neurons, leading to the generation of

electrical signals in the postsynaptic neurons, thus successfully transferring the electrical information from one neuron to the other. The presynaptic mechanisms that may be altered in epilepsy remain poorly understood, though research from our lab suggests that epilepsy leads to both structural and functional alterations. My current research examines prospective changes in these synaptic compartments, and whether they could serve as therapeutic targets for novel drugs.

The most common drug-resistant form of epilepsy is called mesial temporal lobe epilepsy (MTLE). My research has focused on the hippocampus, a part of the brain that can be severely damaged by MTLE. A few very limited studies have examined the functional properties of how neuronal properties are altered in epilepsy. In particular, I was interested in how the neurons may alter the secretion of the neurotransmitter in epilepsy, by altering the recycling of the packets or vesicles into which they are packed. In the laboratory of Patric K. Stanton, Ph.D., professor of cell biology and anatomy and of neurology, the tools and the expertise—along with animal models that can robustly recapitulate the human disease—allowed me to focus on a precise question: Do the vesicles that contain the neurotransmitter recycle in a manner different than under normal circumstances?

Using live cell imaging and 2-photon microscopy of these sub-cellular compartments called presynaptic terminals, we were able to demonstrate that the acute brain slices derived from epileptic animals showed greater vesicle fusion and recycling characteristics. This suggests that regions of the brain could secrete more of the excitatory neurotransmitter and thus lead to hyperexcitability and hypersynchronization of neurons, likely progressing to the epileptic state.

In collaboration with colleagues at the University of Texas (UT) Brownsville and UT Austin, we used transmission electron microscopy to determine persistent alterations in the ultra-structure of these presynaptic terminals. Our work suggests that these synaptic terminals are persistently altered in structure and function in the pathophysiology of epilepsy and could also serve as therapeutic targets for novel drugs targeting intractable epilepsy. ■



► CHIRAG UPRETI

Chirag Upreti has been studying the cellular and molecular mechanism of epilepsy, an interest that dates back to his witnessing a childhood friend suffer a seizure as they played a cricket match in his hometown of Nainital, India. His fascination with neuroscience grew as an undergraduate at Osmania University in Hyderabad, where he received a B.Sc., and at Panjab University in Chandigarh. He is a member of the American Epilepsy Society, and hopes to further his career with postdoctoral study in the field. At press time, he had just accepted a postdoctoral position in the lab of Nobel Prize winner Eric Kandel, M.D., at Columbia University.



Not All Sugars Are Created Equal: Effects of High Fructose Consumption on the Heart

By Elizabeth Kertowidjojo

The simple monosaccharide fructose has generated a controversy unlike any other sugar. A recent national health and nutrition examination survey found that Americans consume more than 10 percent of their caloric intake in the form of fructose, with adolescents consuming up to 15 percent.

The consumption of fructose, especially in the form of high fructose corn syrup (HFCS) is almost impossible to avoid in commercial food products. Parallel to the rise in fructose consumption is an increase in obesity and the development of metabolic syndrome, a constellation of signs and symptoms including elevated plasma glucose, hypertension, dyslipidemia, insulin resistance, and central obesity. Studies have found a causal relationship between high fructose consumption and these conditions, although the mechanism behind this relationship remains unclear.

My work centers around the effects of high fructose consumption on the cardiovascular system. Metabolic syndrome increases the risk of cardiovascular mortality more than three-fold, and many of the harmful effects of fructose, such as hypertension, atherosclerosis and endothelial dysregulation, are directly related to metabolic syndrome. A link that is often found between lifestyle factors and cardiovascular dysfunction is inflammation and oxidative stress, specifically an elevated superoxide level. Superoxide is a free radical generated by a one-electron reduction of oxygen, and is mainly produced as an essential part of the immune process of pathogen killing. Elevated superoxide is often found in patients with detrimental lifestyle factors, such as smoking.

Among the harmful effects of superoxide is the scavenging of nitric oxide (NO), a gaseous signaling molecule essential to normal cardiovascular function. Discovered more than 20 years ago, NO is best known for its role as a vasodilator and is still intensively investigated because of its numerous roles in signaling events and cardiac metabolism, many of which are essential to the cardiovascular system. We hypothesize that the detrimental effects of high fructose consumption stem from an increased level of superoxide, effectively reducing NO bioavailability and negatively affecting the heart.

In accordance with the literature, our study shows the development of metabolic syndrome in fructose-fed animals, namely hypertension, insulin resistance and hyperurecemia. Fructose feeding alters cardiac substrate utilization and increases cardiac work. The left ventricle of fructose-fed animals also demonstrates an altered cellular metabolism, which is corrected with the addition of an exogenous NO donor. Incubation with tiron, the superoxide scavenger, or losartan, an angiotensin II receptor blocker, had a similar rescue effect.

Overall, our results have shown that high fructose consumption increases the production of superoxide, lowering NO bioactivity and inducing detrimental changes in the heart. We are currently conducting studies to further investigate the mechanism behind this process, specifically determining the role of angiotensin II, a known activator of the superoxide-producing enzyme, NADPH oxidase. ■

► ELIZABETH KERTOWIDJOJO

Elizabeth Kertowidjojo, originally from Jakarta, Indonesia, is an M.D./Ph.D. candidate in the laboratory of Thomas H. Hintze, Ph.D. '80, professor and chairman of the Department of Physiology. After earning a B.S. in biochemistry and psychology from University of California, San Diego, in 2007, she joined NYMC as a medical student, and later the Graduate School of Basic Medical Sciences to pursue a joint M.D./Ph.D. degree. Ms. Kertowidjojo intends to pursue both a clinical and academic career, aiming to further the field of translational science.

ALUMNI



NEWS

Irina Ellison, Ph.D. '05: STAMPING OUT SMOKING AND BUILDING COMMUNITY

By Andrea Kott, M.P.H.

If you smoke within sight of Irina Ellison, Ph.D. '05, she will make a point of asking you to stop. She won't lecture, judge or harass you. But she will take the time to explain that smoking endangers not just a smoker's health but also the health of nearby nonsmokers. Not smoking around others is, therefore, a matter of personal and social responsibility.

"There are people who roll their eyes—usually the smokers," Ellison says of the reactions to her crusade. "But when I get them one-on-one they open up and realize why there's a fault in their logic in terms of exposure to secondhand smoke."

Soft spoken and cheerful, Ellison does not seem audacious enough to ask a complete stranger to put out a cigarette. She definitely seems too mild-mannered to inform a pack of students that they cannot smoke on the campus of St. Francis College in Brooklyn, where she teaches cell and molecular biology. But the 31-year-old pathologist is fearless, and has done both. Moreover, she is determined to persuade people that personal acts have public consequences: that one person's smoking can harm the health of many. Because of her activism, St. Francis College became a fully smoke-free campus in 2011. "We are the first New York City campus to go completely smoke free," she says proudly.

Unlike some anti-smoking advocates, Ellison's campaign is not a backlash against a childhood spent choking on relatives' secondhand smoke. She has simply always been interested in disease prevention. Her dissertation research on the ways that different racial groups metabolize cigarette smoke—and her finding that smoking

puts some minorities at greater risk than whites—stoked her interest even more. "I'm interested in bridging basic science research with public health research to help people understand how their behaviors affect their health," she says.

To hear Ellison make her case against smoking is to understand how one person can convince an entire community to make public health a top priority. "Smoking is the number-one cause of preventable disease in the world," she says, revving up to recite a litany of smoking-related facts. "Cigarette smoke affects fertility and sexual performance. It is a huge source of free radicals and air pollution. And cigarette butts are the most littered item in the world." She lets the information sink in, then continues: "The number of people who die per year from secondhand smoke is much greater than the number of people who die in drunk-driving accidents. We have laws about drunk driving. For some reason the message has not hit home with second-hand smoke."

Ellison recognized the problem of secondhand smoke at St. Francis College when she arrived in 2006 and observed smokers congregating at the school's only entrance and exit. "Not only was it not a good image for the college, but it was a public health concern for both the community and the college," she said.

She convinced the administration to host a "Great American Smokeout," which encourages smokers to give up the habit



“I’m interested in bridging basic science research with public health research to help people understand how their behaviors affect their health,” she says.

for a day. The event, co-sponsored by the American Cancer Society, featured workshops in hypnosis and stress reduction, karaoke singing (to test lung capacity) and the dispensing of free, six-week supplies of nicotine patches. The smokeout was such a success that the college recently hosted its fifth.

With each smokeout, approximately 30 people kick the habit, Ellison says, noting the modest but encouraging result. “It takes the average person 7 to 10 tries to quit smoking,” she says, clearly compassionate toward those struggling to kick the habit.

Compassion may be atypical among anti-smoking zealots, but Ellison believes it is critical for conveying her message. She doesn’t just tell people they should quit. She injects empathy into a broader message about the toll that smoking takes on the public health. “I don’t lecture that smokers should quit so much as explain how their smoking affects other people,” she said. “I thank people for moving away. I tell them, ‘You’re impacting the quality of people’s lives, and if you need resources about quitting smoking, let me know.’”

So far, a college in Virginia has contacted Ellison to ask for guidance in making its campus smoke-free. Meanwhile, at St. Francis, her campaign has evolved from a lesson in public health to a model for community building, sparking conversations about the importance of promoting respect when opinions differ. To Ellison, not smoking is showing respect. “I talk to my students about it. We talk about why it’s important to respect the health of others.”

To some, Ellison is a godsend; to others, she is a challenge. Still, she is undaunted. “I’m about to go home and I will probably see someone smoking and get into a 45-minute conversation with them,” she says with a laugh. “This is my opportunity to help somebody.” ■

IN MEMORIAM

ALUMNI

Renee A. Perry, M.P.H. '98, died June 27, 2011. She was 64.

Richard L. Blitz, M.D. '88, died November 23, 2011. He was 51.

Dean H. Wasserman, M.D. '75, died on May 21, 2012. He was 61.

Stephen R. Bolkin, M.D. '71, died January 18, 2012. He was 68.

Robert C. Sabatelle, M.D. '65, died January 13, 2012. He was 72.

Anthony Barone, M.D. '64, died February 21, 2012. He was 73.

Leon I. Miller, M.D. '64, died January 20, 2012. He was 79.

John J. Bucchiere Jr., M.D. '62, died February 3, 2012. He was 75.

Howard B. Grunther, M.D. '62, died January 11, 2012. He was 75.

William E. Tesauro, M.D. '62, died November 7, 2011. He was 76.

R.P. Altman, M.D. '61, died July 27, 2011.

Nicholas A. Conforti, M.D. '61, died November 1, 2011.

Joseph F. Kennedy, M.D. '61, died January 24, 2012. He was 76.

William F. Flynn, M.D. '60, died December 9, 2011.

Henry T. Grant, M.D. '60, died December 17, 2011. He was 78.

Leo J. Greco, M.D. '60, died December 24, 2011. He was 78.

Herbert H. Joseph, M.D. '60, died August 1, 2011. He was 77.

Stephen T. Cogen, M.D. '59, died February 15, 2012. He was 79.

Donald J. Bradley, M.D. '56, died October 18, 2011. He was 83.

James C. Wright, M.D. '56, died March 22, 2012. He was 81.

Alois Kalfelz, M.D. '55, died February 16, 2012.

George W. Valentine, M.D. '55, died July 2, 2011.

Richard Fisch, M.D. '54, died October 23, 2011. He was 85.

Edward I. Henry, M.D. '54, died in December 2011. He was 82.

John E. Aiken, M.D. '53, died December 6, 2011. He was 87.

William P. Coats, M.D. '53, died March 19, 2012. He was 90.

Irving N. Rubinstein, M.D. '53, died August 30, 2011.

Carl J. Levinson, M.D. '52, died November 21, 2011.

Arthur G. Sullivan, M.D. '52, died December 12, 2011. He was 86.

Stanley A. Wanlass, M.D. '52, died in 2012. He was 89.

Charles V. Tierney, M.D. '51, died February 16, 2012.

Henry T. Uhrig, M.D. '51, died November 17, 2011. He was 89.

Richard R. Bass, M.D. '49, died January 12, 2012.

Eugene E. Gaudet, M.D. '46, died November 4, 2011.

Walter W. Kelley, M.D. '44, died December 10, 2011. He was 96.

Joseph M. Andronaco, M.D. '42, died February 11, 2012.

William Rubin, M.D. '37, died November 4, 2011.

FACULTY

Robert Goldstein, M.D., professor emeritus of medicine and former associate dean for student affairs, died on April 27, 2012 at the age of 99. Dr. Goldstein joined the College faculty in 1961 and served as chairman of the Department of Medicine from 1969 until 1976. Although he retired in 1985, he continued serving on numerous committees until 2002. Dr. Goldstein's true fervor was his dedication to the medical students he served. Students dedicated the yearbook to Dr. Goldstein five times, and in 1993 the graduating class established the Robert Goldstein, M.D., Society of Teachers Award to recognize exceptional and inspiring faculty members.

Harold Michal-Smith, M.D., former professor of pediatrics, died on December 20, 2011.

MILESTONES

ALUMNI ACHIEVEMENTS

In this section of *Chironian*, we publish Class Notes sent by our readers. News items should be brief, timely—and legible! Submit Class Notes online at www.nymc.edu/alumupdate, or by mail to Alumni Relations, New York Medical College, 40 Sunshine Cottage Road, Valhalla, NY 10595. Be sure to look for us on Facebook and Twitter (@NYMC_tweets).

THE 00s

Kira Geraci-Ciardullo, M.D., M.P.H. '07, was re-elected vice speaker of the Medical Society of the State of New York. She is also an adjunct assistant professor of pediatrics at NYMC.

THE 90s

Hurrah's Nest: Memoirs of a Money Trader is the latest book written by **Barbara A. Kennedy, M.P.H. '96**. Ms. Kennedy worked on Wall Street for more than 20 years prior to attending NYMC. The novel explores the bio/psycho/social/spiritual issues of relationships.

THE 80s

Victoria T. Crescenzi, M.D. '89, retired from the U.S. Navy in September 2009 after 20 years of service. She is currently a developmental/behavioral pediatrician at Bremerton Naval Hospital in Washington State. She is married to Peter C. Carlo and they have two children.

The American Academy of Physical Medicine and Rehabilitation (PM&R) awarded **Michael Fredericson, M.D. '88**, the Physiatrik Association of Spine, Sports and Occupational

Rehabilitation (PASSOR) Legacy Award and Lectureship. Dr. Fredericson is professor and director of PM&R sports medicine in the Department of Orthopedics at Stanford University and fellowship director for Stanford Sports Medicine.

Leona Borchert, M.D. '87, is a medical director for oncology medical affairs at Boehringer Ingelheim Pharmaceuticals in Ridgefield, Conn. As a senior medical reviewer for the oncology division, she ensures that all oncology information, including television commercials that are directed toward health care providers and patients, is medically accurate and meets FDA regulations.

Steven J. Litman, M.D. '87, was named to Castle Connolly's top doctors for pain management.

David Gross, M.D. '84, his son Joshua A. Gross, a medical student, and two colleagues were co-authors of a paper, "Metastatic Hepatocellular Carcinoma to the Skin Staining Positive With HMB-45," published in the February 2012 issue of the *American Journal of Dermatopathology*.

Rebecca Steckel, M.D. '83, reports her oldest son is enrolled at Ramapo College of New Jersey, her second son is in 11th grade at Hillel Yeshiva High School in Ocean Township, N.J., and her youngest daughter just started high school there.

Susan J. Blakeney, M.S. '92, M.P.H. '10:

TWO DEGREES, TWO PATHS TO MAKING A DIFFERENCE

By Cynthia A. Read

In May, Susan Blakeney flew to New Delhi, India, to begin six months as a Pfizer Global Health Fellow, working with Project HOPE's India Diabetes Educator Project. That's a long way, geographically and conceptually, from her education in biochemistry and her career as a principal research scientist in Pfizer's vaccine research program in Pearl River, N.Y. But, looking back, she describes her life as a process of stones falling into place, one by one, all leading her to where she is now.

Blakeney has always been a questioner, eager to understand how things work. "Chemistry is like that—think of the Periodic Table," she says. After receiving her B.S. in chemistry from Manhattan College in 1986, she got her first job at General Foods, working on a project seeking to genetically engineer a decaffeinated coffee bean. This introduction to biochemistry led her to her next position at Lederle Laboratories. There she has built a career in molecular biology, working on the development of vaccines for polio, Norwalk virus, rotavirus and herpes simplex virus. She is currently with Pfizer's 13V Pneumococcal Conjugate Vaccine program. Along the way, she went to New York Medical College for her M.S. in biochemistry and molecular biology and wrote her thesis on translation of poliovirus mRNA.

Meanwhile, Blakeney began to explore the world. In 2000, she went to Africa, first to climb Mount Kilimanjaro and then—"having sufficiently tired myself out so I could relax in a vehicle"—on safari. That trip first sparked her interest in other cultures. But her dream was to go to the Far East, and her colleagues at Wyeth (which had acquired Lederle Laboratories) supported her taking a leave of absence to travel. In 2004, she visited Bhutan, Thailand, and Nepal, primarily trekking and visiting remote villages where health care was virtually nonexistent. "The experience really changed me," she says. While she had once believed one needed medical training to help people, she realized she did not have to become a physician, which was not her natural bent. With the right training, she would be able to make a difference through educating people and giving them the tools to help themselves.

Soon after returning to the United States and to Wyeth, she went back to NYMC, this time in the School of Health Sciences and Practice in pursuit of an M.P.H. with a concentration in international public health. As part of the practicum she did a six-month internship in East Harlem, where she was trained as a community health worker doing diabetes education. "This internship was the best experience in my education," she



In 2004, she visited Bhutan, Thailand, and Nepal, primarily trekking and visiting remote villages where health care was virtually nonexistent. “The experience really changed me,” she says.

says, “and had the greatest impact on my career and my aspirations, along with the support of Dr. Murthy [Padmini Murthy, M.D., M.P.H., M.S., CHES, the school’s international health program director].”

Blakeney received her M.P.H. in 2010, after Wyeth was acquired by Pfizer, Inc. She soon learned of the Pfizer Global Health Fellows Program, which places people in short term volunteer assignments with international development organizations. It sounded like a perfect fit. Her experience with East Harlem community health education made her a good match for Project HOPE’s diabetes prevention and care initiative in India, which leads the world in the prevalence of the disease. She will remain there through October 2012, lending her expertise and learning about the culture. The project emphasizes the role of the educator in empowering patients, especially those at risk for the disease, to take responsibility for their daily care—a sustainable model of the kind Blakeney most admires. ■

William C. Reha, M.D. ’81, is president of the Virginia Urological Association, speaker of the house of the Medical Society of Virginia, member of the board of trustees at Strayer University and has a full-time private practice in urology in Woodbridge, Va.

THE 70s

Nicholas Bonvicino, M.D. ’79, is leaving Horizon BCBS of New Jersey after 14 years as senior medical director to start a private health care consulting company, NB Healthcare Advisors, LLC, to assist providers in the development of accountable care entities.

Scott Cutler, M.D. ’77, continues to practice adult psychiatry in Worcester, Mass., and New York City. His daughter, **Beth Cutler Freedman, M.D. ’06**, recently achieved board certification in general surgery and is currently a fellow in breast surgical oncology at Beth Israel Medical Center/St. Luke’s Roosevelt Hospital Center in New York.

Nicholas V. Polifroni, M.D. ’77, chief of orthopedic surgery at Norwalk Hospital in Connecticut, received the hospital’s Tracey Award for leadership, character, community service involvement and clinical skill.

Michael J. Bronson, M.D. ’76, was appointed vice chairman of the Department of Orthopedic Surgery at The Mount Sinai School of Medicine.

Daniel Morhaim, M.D. ’75, is the author of *The Better End: Surviving (and Dying) on Your Own Terms in Today’s Modern Medical World*, published by Johns Hopkins University Press. Dr. Morhaim presents the case that choosing end-of-life care depends on accurate information and personal values. He writes, “The book is about empowerment, dignity and control in managing medical crises and end-of-life care.”

William Wickemeyer, M.D. ’75, was named Cardiovascular Services Physician Leader at Mercy Medical Center—Des Moines, where he is responsible for implementing key organization-wide strategies, programmatic decision making, and communication and collaboration with medical staff.

THE 60s

Richard Fogler, M.D. ’68, chairman emeritus of the Department of Surgery, chief medical officer and designated institutional official at Brookdale University Hospital and Medical Center, in Brooklyn, N.Y., writes, “The glimmer of retirement is in sight and the warmth of ‘Zaydehood’ is approaching.”

Morton Meltzer, M.D. ’65, is still working full-time in psychiatry but gave up family medicine and urgent care.

Stephen T. Batthany, M.D. ’64, resides in Lake Worth, Fla., and is awaiting an appointment as assistant clinical professor of family medicine. He recently spoke with **Ira Raff, M.D. ’64**, and **Robert Lieberman, M.D. ’62**, and will attend the 50th reunion.

Stanley Ostern, M.D. ’60, is happily retired in Santa Barbara and enjoying his 11 grandchildren. He underwent aortic valve replacement surgery several months ago and is happy to report that he is able to play tennis six days a week. “Not bad for someone who just had his 77th birthday,” he writes. He is involved in a program that teaches troubled youth about the Holocaust, and he would enjoy hearing from classmates.

THE 50s

Ronald Pion, M.D. ’56, continues to offer strategic advice to early stage companies that use innovative and disruptive technologies.

Timothy Hsieh, M.D. '98: AN EASTERNER, NOW AT HOME IN OKLAHOMA

By Andrea Kott, M.P.H.

Tahlequah, Oklahoma, is not where Timothy Hsieh, M.D. '98, expected to live after graduating from medical school. And, once he left, it is not where he expected to return. But between becoming a physician and raising a family, Dr. Hsieh found he needed balance, and that is what brought him back.

After completing his training in internal medicine and geriatrics in 2003, Dr. Hsieh moved to Tahlequah to work in a clinic at the W.W. Hastings Hospital, a 60–70 bed facility that is part of the Indian Health Service under the U.S. Department of Health and Human Services. The Cherokee Nation operates the hospital, which cares exclusively for Native Americans of all tribes. Dr. Hsieh had expected to stay for three years, under the terms of his National Health Service Corps scholarship, which requires one year of service in an underserved area for every year of financial support provided. And, he did. But he missed family back east, so in 2006 he accepted a private practice position in State College, Pennsylvania. Once there, although he was in the same time zone, he found the new job did not give him enough time to spend with family.

Moreover, he was spread too thin to be able to provide continuous, individual patient care. Thus, one year after leaving Hastings Hospital, Dr. Hsieh returned, and in 2010 he joined its four-person hospitalist team. As a hospitalist, Dr. Hsieh is able to address patients' needs as they occur throughout the day—faster than a primary care physician who visits only once a day or sees them briefly in a clinic. “In a clinic setting patients show up with chronic problems that require lifelong management,” he says. “If you have many patients waiting for you, you see them quickly and may not address them again until the next office visit. Hospitalists get satisfaction from seeing the results of fixing acute problems.”

Such continuity is critical for treating acute presentations of chronic medical problems like diabetes, hypertension, chronic obstructive pulmonary disease, congestive heart failure and coronary artery disease, which are prevalent in the Native American population and require ongoing monitoring. As part of the rapid response team, hospitalists can also respond to acute and sometimes urgent life-threatening situations.

Following cases from admission to discharge allows hospitalists to develop good rapport with patients, which is especially important in the Native American community, whose traditions



Photo courtesy of Cherokee Nation Communications.

“The Cherokee Nation operates the hospital, which cares exclusively for Native Americans of all tribes.”

and beliefs may foment distrust of Western medical care. “Language could be a hindrance to educating Native Americans about why we’re giving them medicine,” Dr. Hsieh says, adding, “I’ve had patients who seek their own healers.”

It has been nearly a decade since Dr. Hsieh first arrived at Hastings Hospital, and in that time he has found the balance between work and family life. His every-other-week schedule allows him quality time with daughter Lauren, 8, and son Daniel, 2. He has room for professional growth and recently became a board-certified sleep specialist. He also has time to teach medical students and residents at Oklahoma State University for Health Sciences, where he is an adjunct clinical assistant professor of internal medicine. Plus, Tahlequah is an affordable place to live and a great place to raise children, he says, adding, “I would never in a million years think I’d be in Oklahoma.” Not only there, but there and back again—just like home. ■

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PHOTOS

1: The Class of 1962.

2: Medal of Honor winners Robert J. Belsole, M.D. '69, and Eileen Dieck, M.D. '86, with Edward C. Halperin, M.D., M.A., the College's new chancellor and CEO.

3: Mickey and Henry Saphier, M.D. '61, president-elect of the Alumni Association Board of Governors.

4: The Class of 1987.

5: Eileen Dieck, M.D. '86, left, Henry Saphier, M.D. '61, and Joseph F. Dursi, M.D. '59 (right), with winners of the 2012 Alumni Endowed Scholarships.

6: Proud parents Patricia Barry, M.D. '83, and John Cosgrove, M.D. '83, with their daughter Susan Cosgrove, School of Medicine Class of 2012.



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