The People Behind the Medicine

MOUNT SINAI DEPARTMENT OF MEDICINE
Annual Report 2009

The People Behind the Medicine

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“The people at Mount Sinai are the foundation on which our success is built.”

PAUL KLOTMAN, MD
CHAIRMAN
Letter from the Chair of Medicine

Dear friends and colleagues,

A rap video
Health care reform
Jaguars
Medical professionalism
Community activism
Glowing jellyfish proteins
A hospital in Kenya

What, you might wonder, could this seemingly random and rather strange grouping of ideas and items have to do with one of the top 20 academic departments of medicine in the country?

Surprisingly all of these are elements from stories of the people who comprise the Samuel Bronfman Department of Medicine; stories that include lifetimes dedicated to medicine and science, opening new fields of study, and innovative approaches to improving health outcomes; stories that demonstrate the true meanings of passion and compassion; stories that I as Chairman and colleague to these remarkable people hear everyday; and stories that I am pleased to share with all of you.

In past reports we focused on the numbers. Grant money, patient volume, quantity of publications, length of stay ratios, and other statistics are all important indicators of success. However, they are not the drivers of our success nor are they the forces that motivate our success.

Throughout this book you will find the stories of 13 extraordinary individuals. While they are no more or less notable than many of their colleagues, the sum total of their stories provides a glimpse of the depth and breadth of histories, interests, zeal, and determination of the people with whom I am privileged to work.

Sincerely,

Paul Klotman, MD
Murray M. Rosenberg Professor of Medicine
Chairman of the Samuel Bronfman Department of Medicine
“And they should help us answer a central question in the field, which is whether there are different pathways to fatty liver disease, or if it’s all the same disease.”

Those who think it’s no big deal for the world to lose another species or two might want to consider the lowly zebrafish. In labs around the country— including one run by Kirsten Sadler Edepli, PhD, MMSc, Assistant Professor— these tiny, striped, freshwater fish are helping researchers reveal new insights into embryonic development and a host of human diseases.

Zebrafish are prized by biomedical researchers because they reproduce prolifically, mature quickly, are easy to raise, have external see-through embryos, and share many genes with humans.

Kirsten is taking advantage of these qualities to learn more about fatty liver disease (FLD), the accumulation of excess fat in the liver. FLD, which over time can seriously compromise liver function, is typically brought about by alcohol abuse or metabolic syndrome (a combination of type 2 diabetes and obesity).

Kirsten’s studies were energized by her 2005 discovery of a zebrafish mutant that develops FLD in the embryo. The gene responsible for the mutation—which she and her colleagues named foie gras (foigr) in the tradition of humorous gene nomenclature—is found in many animals, including humans, but no one knows the function of the protein that foigr makes. “We’re now working to understand the cellular function of the protein and using the foigr mutant embryo as a model for studying fatty liver disease.”

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Her team has developed other zebrafish models of inherited and acquired liver disease. All told, these models promise to clarify the biochemical events that lead to FLD.

Says Kirsten, “And they should help us answer a central question in the field, which is whether there are different pathways to fatty liver disease, or if it’s all the same disease.”

In addition, she’s tapping into her menagerie of zebrafish models to study congenital disorders of glycosylation, a group of genetic defects that can lead to a rare, debilitating, and sometimes fatal form of FLD in children.

Kirsten’s zebrafish may also add to our understanding of liver cancer. “This work is based on a simple hypothesis: that the genes that contribute to liver growth in the embryo are similar to those that contribute to the growth of tumor cells in the adult liver,” she explains. “We think that in diseases like fatty liver disease or hepatitis, damaged cells release signals telling the liver to regrow. But at some point, those dividing cells start to lose control and turn into a tumor. Nobody has been able to test this hypothesis directly because there haven’t been suitable models where you could look at liver development and liver cancer in the same animal.”

According to Kirsten, a gene called uhrf1 may underlie this phenomenon. Her experiments have demonstrated that uhrf1 is required for normal liver growth and development. And, in collaboration with researchers in the Mount Sinai Liver Cancer Research Program, she has found that the gene is highly expressed in patients with advanced hepatocellular carcinoma, a type of liver cancer. Studies are underway to establish the significance of this finding.

It’s a wonder there are no bumper stickers that read: “Save the Zebrafish.”
Over the last half-century, carcinoid cancer — which is characterized by small, slow-growing tumors found mostly in the gastrointestinal tract and occasionally in other organs — has been quietly transformed from a severely debilitating disease into a manageable chronic illness for the majority of sufferers. Much of the credit goes to Richard R. P. Warner, MD, Professor.

His contributions to the field began in the 1950s, when he characterized the first cases of carcinoid syndrome originating from a tumor in the lung. (Carcinoid syndrome occurs when the tumors trigger overproduction of serotonin and other neuroendocrine hormones, causing flushing, diarrhea, wheezing, and heart failure.) In the ensuing decades, he conducted studies of serotonin, devised an anesthesia regimen for patients undergoing carcinoid tumor surgery, and was one of the first to use cryoblation (freezing) for reducing metastatic carcinoid tumors. Along with Mount Sinai colleagues he developed a treatment that delivers a high level of chemotherapy to carcinoid metastases in the liver.

The list of accomplishments go on and on. In an ongoing study, dating to 1958, he’s been following thousands of carcinoid patients to better understand the natural course of the disease and improve diagnosis and treatment. Since 1968, he has served as medical director of the Carcinoid Cancer Foundation, which has funded numerous research studies and established more than 50 patient support groups around the nation.

Over the years, he has seen thousands of patients with this rare form of cancer—all the more remarkable considering that many physicians go a lifetime without seeing a single case of the disease.

In recognition of his life’s work, in 2009, he was awarded the North American Neuroendocrine Tumor Society’s first-ever lifetime achievement award.

Now in his ninth decade, he has no thoughts of retirement. After all, there is more work to be done. “More than 90 percent of all carcinoid patients are incorrectly diagnosed and treated for the wrong disease,” he notes. “From the initial onset of symptoms, the average time to diagnosis is about five years.” This delay is critical, since the disease is best treated early, before the tumors spread.

Recently, he left private practice to lead Mount Sinai’s new Center for Carcinoid and Neuroendocrine Tumors. He and his colleagues are currently investigating a “new” treatment for carcinoid tumors that have spread to the liver, in which radioactive particles are injected into the hepatic artery — reviving a technique he pioneered back in the 1960s. “We have several more translational research projects on the drawing board,” he says.

His ties to Mount Sinai date to the early fifties, when he worked at the Hospital between his third and fourth years of medical school. (His family ties go back even further — his mother and step-father, both physicians, met while working in the hospital’s clinics in the 1930s.) He returned later in the decade, becoming Mount Sinai’s first fellow in gastroenterology. He has had a hand in the training of every single gastroenterology fellow who has followed in his footsteps.

The indefatigable octogenarian still lectures and publishes widely. Outside of work, he roller skates, cycles, hikes, skis, and flies his own airplane. “It keeps me out of mischief,” he says.

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Dr. Aluko Hope is bridging two seemingly disparate disciplines to bring patients both quantity and quality of life.

“There doesn’t have to be a transition between the two approaches, where critical care comes first and palliative care begins only when the situation is futile. The two can, and should, go hand in hand.”

Dr. Hope. Is there a more appropriate surname for a physician? Add a given name like Aluko (which is a Yoruba name that means “brother of peace”) and you’ve got an unforgettable medical moniker.

Actually, Aluko Hope, MD, MSCE, Fellow, would stand out if his name were John Smith. He is the first Mount Sinai trainee to combine fellowships in pulmonary-critical care and palliative care, two seemingly disparate subspecialties.

In simple terms, critical care is “high tech,” dedicated to extending quantity of life, while palliative care is “high touch,” dedicated to improving quality of life. But he believes the two approaches are not mutually exclusive.

“Ultimately, what I want to do is break that separation down,” says Aluko with an oh-so-slight Caribbean accent (he was born in Guyana and moved with his family to Brooklyn at age 14). “There doesn’t have to be a transition between the two approaches, where critical care comes first and palliative care begins only when the situation is futile. The two can, and should, go hand in hand.”

The challenge for critical care physicians is to be attuned, not just to the patients’ immediate physical needs, but also to the patients’ and the families’ psychological, emotional, and spiritual needs. “It can be more comfortable for physicians to hide behind the machines, so to speak. But we need to be able to address symptoms like anxiety and depression and be willing to ask the tough value-laden questions about end-of-life care, rather than wait for the patient or family to bring them up,” he says.

“That doesn’t mean that critical care physicians have to do it all by themselves,” Aluko continues. “It just means they must know how to assess and recognize, let’s say, when a patient is depressed, in which case they would call in a psychiatrist, a pastoral counselor, or another member of the palliative care team.”

“My goal in merging these two fields,” he says, “is to ensure that critically ill patients get the care they need, which is what medicine is ultimately about.”

Research is also part of his dual fellowship. In one project, Aluko, who holds a master’s degree in clinical epidemiology, is studying ways to develop more nuanced predictions of how elderly patients fare in the Intensive Care Unit. “Age alone is not enough of a predictor,” says the fellow. “It may be more fruitful to look at their functional status at home, or at their degree of frailty. Most doctors would say they know what a frail elderly person looks like, but we don’t know how to quantify that, or how that information is relevant to their trajectory in the Intensive Care Unit.” He is also looking at ways to predict cognitive dysfunction in elderly patients who survive critical care. Such knowledge, he hopes, will help physicians better integrate palliative care principles into the care of the critically ill elderly.
“The day I stop losing sleep over patients is the day I’m going to retire.”

Children often follow their parents into the family business, though sometimes it’s a decision that both generations come to regret. Not so for Harry Spiera, MD, Clinical Professor; and his son Robert Spiera, MD, Adjunct Clinical Instructor at Mount Sinai and Associate Professor at Weill Medical College, partners in academe and in clinical practice.

“We’ve never had any issues,” says Harry, who boasts of his son’s accomplishments as a clinician and a researcher. To which Robert responds, “There is nobody else I would rather run a case by either formally, for a second opinion, or informally. He has been an enormous resource.”

The elder Spiera has been associated with Mount Sinai for most of the last 50 years, starting with a residency in medicine. In the mid-1960s, he became the first Chief of the newly created Division of Rheumatology, a post he held for three decades. For years, it was an unpaid position, consuming 20 hours a week. Nonetheless, he found time to build a busy private practice and to conduct research. As a young physician, he was the first to characterize polymyalgia rheumatica, an inflammatory disorder that causes widespread muscle stiffness. Later, he made significant contributions to the understanding and treatment of lupus, temporal arteritis, rheumatoid arthritis, and more.

According to Harry, much of his success can be tied to the “old Sinai tradition of having one foot in the world of clinical care and the other in research.”

Robert took this lesson to heart, finding homes in academic medicine at the Hospital for Special Surgery (HSS) and at Mount Sinai. At HSS, he is currently participating in a multicenter study that may change the standard of care for vasculitis (inflammation of a blood or lymph vessel) and is leading a trial of a drug that may be the first effective treatment for scleroderma (a disease in which connective tissue becomes hardened and rigid).

“My association with my father has been a definite advantage in terms of my research,” says Robert. “He’s always had a very large patient population, so I was able to gain expertise in these rare diseases early in my career.”

Harry also serves as a clinical role model for Robert and countless others, including Robert’s sister Penny Spiera Turtel, MD, a Mount Sinai trained gastroenterologist with a thriving practice in NJ. “My father exemplifies all there is good about the practice of medicine,” says the son.

“From him, I learned what it means to take responsibility for the care of a patient. For example, I remember him saying, ‘The day I stop losing sleep over patients is the day I’m going to retire.’ He has thrown out a lot of those pearls over the years.”

“Every patient encounter has to be meaningful,” adds Harry. “You can’t just go through the motions.”

Harry credits another professional ethic, which he learned at Mount Sinai, for their smooth professional relationship. “The atmosphere at Sinai is such that you can say anything to anybody,” he explains. “A student can challenge a professor, as long as you make a cogent argument. Not every medical center is like that.”

Drs. Harry and Robert Spiera have made caring for patients and supporting Mount Sinai a family affair.
Considering all the time and effort it takes to earn a doctorate, attract funding, and establish a laboratory, it’s rare for a young investigator to walk away from a promising career in basic research.

Anne L. Maitland, MD, PhD, Assistant Professor, did exactly that about a decade ago, realizing that she could have more influence on asthma care as a clinician and an educator — two of her roles as a clinical immunologist at Mount Sinai.

As Anne sees it, there are two main reasons why people with asthma don’t get the care they need. First, many, if not most, doctors don’t perform routine screening for the disease, and second, many people don’t realize they have asthma or they underestimate its severity. That’s a particularly dangerous combination in communities like East Harlem, where asthma rates are among the highest in the nation.

Anne’s solution is to improve asthma awareness among physicians as well as patients.

As for the first, she’s designing a curriculum for medical residents so that when they enter practice, they’ll know exactly how to screen, manage, and counsel patients with asthma.

To primary care doctors who say they cannot squeeze yet another task into the routine patient visit, she replies, “In five minutes or so, I can screen for asthma, explain the condition, and teach the patient what they need to do. And if I can’t do it all in one visit, I have the patient come back, which is a good way to build a rapport and reinforce adherence to their asthma plan.”

It is well worth the effort, she says. “If you stop asthma up front, you prevent the emergency department visits and the hospitalizations.”

In her spare time, Anne also takes her show on the road, to local churches and community centers, where she conducts evening and weekend asthma screenings and educational seminars. “You have to bring the care to the community,” she says. “Most people with respiratory problems won’t go to the doctor unless they can’t breathe comfortably or stop coughing. They acclimate down to what their lungs let them do, rationalizing, for example, that they can’t climb stairs because they haven’t been exercising.”

At one event, she screened 61 people and recorded 18 abnormal breathing tests. “They all had insurance, and they all had primary care physicians, but none of the 18 knew that they had a breathing problem,” she notes. “My goal is not to undermine the relationship that they have with their primary care physicians but to augment it,” she is quick to add. “In fact, I give them their test results to take back to their physicians.”

Surprisingly, Anne’s newfound role in community outreach doesn’t come naturally. “I was always the one in the back of the classroom,” she admits. “And I was perfectly happy at the laboratory bench. But I found that I can do more in this role. There are a lot of smart people at Mount Sinai who can do basic research, but to translate what happens at the bench to the care that patients need, that’s my niche.”
Dr. Paul Frenette is challenging conventional wisdom and translating his discoveries into new treatments for sickle-cell disease.

Although Paul S. Frenette, MD, Professor, gave up his clinical practice years ago to concentrate on basic research, he keeps one eye focused on the clinical relevance of his work. “If a research project has no clinical implications,” he says matter-of-factly, “I don’t get involved.”

Indeed, Paul’s studies of sickle-cell disease are a perfect example of translational medicine, the model of medical research that aims to bridge the gap between the laboratory bench and the patient’s bedside. More specifically, his work focuses on the cellular and molecular events that mediate the blockage of blood vessels, a painful and dangerous complication of the disease. Vaso-occlusion, as the process is known, occurs when abnormal, sickle-shaped red blood cells (RBCs) clump together in small blood vessels, restricting blood flow to tissues. Treatments are few and far between, but thanks to Paul’s discoveries, there is new hope.

“Until recently, the dogma has been that sickle cells stick directly to the vascular endothelium — the lining of the blood vessels,” says Paul. However, his studies conclusively demonstrate that the process involves an intermediary, namely white blood cells (WBCs), which initiate the blockage of blood vessels by sticking to the endothelium. “In normal people, that’s fine — their RBCs slip by,” he adds. “But sickle-cell patients have rigid RBCs, which tend to adhere to the WBCs, leading to occlusion.”

Paul proved this concept using a revolutionary imaging technique called intravital microscopy, which allows researchers to watch cells as they interact in living animals, in real time. In subsequent intravital imaging studies, he revealed even more details about vaso-occlusion. For example, he discovered that a particular subtype of WBCs — neutrophils — are involved in the blockage of blood vessels. He also found that neutrophils are polarized in inflamed blood vessels and that special adhesion molecules tend to cluster on certain areas of the cells’ leading edge.

He unearthed yet another step in the process. Vaso-occlusion begins when sickle cells irritate the endothelium, activating a molecule called E-selectin, which recruits WBCs to the injury site. According to Paul’s studies, E-selectin also activates adhesion molecules on the surface of neutrophils, which is what causes them to stick to the vessel wall.

Because of these studies, a clearer picture of vaso-occlusion is emerging, as well as a clearer picture of what can be done to treat or prevent it. “We think that blocking either the E-selectin-mediated signal or the adhesion molecules on neutrophils might reduce sickle-cell vaso-occlusion,” says Paul. Clinical trials at Mount Sinai are already in the planning stages.

Paul was one of two members of the Department to receive a Challenge Grant from the National Institutes of Health. These new, highly competitive grants were created under the American Recovery and Reinvestment Act of 2009 to jumpstart a limited number of projects that promise to have a high impact in biomedical or behavioral science or in public health.

Paul is using this grant to develop new means of preventing transfusion-related acute lung injury, the main cause of morbidity and mortality after blood transfusion.
If you’re trolling around YouTube, don’t be shocked if you come across a video of Mount Sinai interns dancing through the hospital’s corridors and rapping about the rigors of life on medicine’s front lines. No, they haven’t lost their minds. They’re simply blowing off steam in a project for the annual house staff follies, one of many ways the Department encourages a healthy balance between work and play.

Actually, for the video’s director, Arzhang Fallahi, MD, a second-year resident, the project was more than fun and games. It was a way to hone his cinematography skills, which he hopes to use to make documentaries about medical care. “Every day that I’m in the hospital, I’m privileged to witness these intimate moments in people’s lives. It gives you a unique perspective on the health care system. I wish more people could see this.”

Arzhang’s background is a story in itself. His parents came from Iran to the United States in the late 1970s. Their temporary stay turned permanent because of the revolution back home. The family ultimately settled in Idaho, where Arzhang’s father, a horticultural researcher, introduced the Fuji apple. Young Arzhang was the only Iranian kid for miles around.

Arzhang started creating videos in high school. Now, he’s intent on producing more serious fare. He’s currently producing a documentary about his extended family in Iran and another about life on dialysis which he is working on at Mount Sinai along with Brian Radbill, MD, Assistant Professor and fellow resident Tania Mucci.

To Arzhang, film is an ideal medium for widening public understanding about complex issues, such as end-of-life care. “It has been frustrating hearing the debates on health care reform,” he says. “Many people just don’t have a clue about what is going on — and how could they if they are not exposed to it?”

Although television is saturated with medical dramas, they don’t do justice to the verities of modern medicine, he adds. “Some of the realities we see are far more gut-wrenching, more dramatic. These aren’t necessarily horrific events, just the day-to-day process of dealing with serious illnesses and injuries. These stories reflect, not only on medicine, but also on our values as a society. As a physician and a filmmaker, I can tell these stories, and I hope to do that in future.”

Arzhang intends to pursue a career in cardiology, an interest nurtured by his time at Mount Sinai. “From the moment I expressed an interest in cardiology, they facilitated more experiences in coronary care units and so on,” he says. “I’ve also had many opportunities to learn from some of the most prominent cardiologists in the world at Mount Sinai Heart, such as Michael Kim, MD, Assistant Professor and Mario Garcia, MD, Professor. Last year, eight of eight residents matched to fellowships in cardiology — a very high percentage. That says something about the program.”

Now, everybody sing along with Arzhang: “Yeah yeah, ahaha, from the S-to-the-I-to-the-N-A-I, I’m the fresh-faced intern on the Upper East Side, I call all the docs, give all the shots….”
Dr. Christina Wyatt is a New York nephrologist whose patient population reaches from East Harlem to East Africa.

“An even bigger concern is what is going to happen in sub-Saharan Africa, where there are some 22 million people with HIV. And we know that Africans have genetic traits that make them particularly susceptible to HIV-related kidney disease.”

Thanks to anti-retroviral therapy, HIV/AIDS has been transformed from a fatal illness into a chronic disease. But it’s a chronic disease with a cruel twist: HIV survivors are particularly prone to age-related illnesses, from dementia to osteoporosis to kidney disease.

Health providers here at home are just beginning to grapple with this phenomenon. “An even bigger concern is what is going to happen in sub-Saharan Africa, where there are some 22 million people with HIV,” says Christina Wyatt, MD, Assistant Professor. “And we know that Africans have genetic traits that make them particularly susceptible to HIV-related kidney disease.” Which means that in the years ahead, tens, maybe hundreds, of thousands of HIV-positive Africans face the prospect of kidney failure, threatening to overwhelm the continent’s already fragile health care systems.

In light of this looming catastrophe, Christina has expanded her research horizons from the clinics of Mount Sinai to a local hospital in Kenya, where she’s working to increase awareness of HIV-related kidney disease among physicians and patients.

One of her projects in Kenya aims to evaluate methods for assessing kidney function. Kidney disease is a stealthy disease, she explains. By the time symptoms appear, most of the damage has been done, at which point kidney failure is common. Thus, it’s important to keep tabs on kidney function in people with HIV, early and often.

However, there’s a huge stumbling block. The conventional way to assess kidney function is based on one’s blood level of creatinine. The resulting number is put into an equation that provides an estimate of an individual’s glomerular filtration rate (GFR), an indication of how well kidneys are cleaning the blood.

This method is simple enough, but the equation is based on Western patients and may not be reliable for Africans, even less for those with HIV. Better tests do exist, though they’re expensive, complicated, and time-consuming, so they’re rarely done in resource-limited nations.

To add some clarity to this testing conundrum, Christina traveled to Moi Teaching and Referral Hospital in Eldoret, approximately 200 miles northwest of Nairobi, to conduct a fairly simple study that could have far-reaching effects. In the study, 100 Kenyans with HIV were given both an estimated GFR test and a highly accurate GFR test (a so-called iohexol clearance study, which measures how quickly the kidney clears an injection of a contrast agent). The results are pending.

“Basically, this will tell us whether the estimated GFR has any value in this particular population,” says Christina. “If so, we could look back at previous GFR studies and determine whether the prevalence of HIV-related kidney disease has been underestimated or overestimated. It could also have a huge impact on drug dosing. Many HIV drugs are cleared by the kidney, so you have to know how well the kidney is functioning in order to give proper dosages.”

“If the estimated GFR works in this population it doesn’t necessarily mean that it will work, for example, in South Africa or Uganda,” she adds. “But it’s a good start.”
Dr. Alex Federman is ensuring that the voices of his patients and colleagues are heard to improve care for all Americans.
Dr. Benjamin Chen is shedding new light on HIV transmission and opening new paths to vaccine development in the process.

By modern production standards, the video made by Benjamin K. Chen, MD, PhD, Assistant Professor, doesn't look like much. In this grainy minute-long clip, a fluorescent-green blob approaches a dull-gray blob, and the two do a little dance until a snippet of green appears inside the latter. The video’s primitive feel, however, is far outweighed by its scientific significance.

It is the first footage showing the transfer of human immunodeficiency virus (HIV) from an infected T-cell to an uninfected one through a structure called a virological synapse. The breakthrough study, published in Science, could lead to new methods to block the transmission of HIV.

“Most prior studies of HIV dissemination have focused on free-roaming viruses,” says Ben, “but this study shows us how direct T-cell-to-T-cell contact could in fact be the predominant mode of dissemination within the body.”

More specifically, the video shows that, once an infected cell adheres to a healthy cell, the HIV proteins—which appear bright green—migrate within minutes to the contact site. At that point, large packets of virus are simultaneously released by the infected cell and internalized by the recipient cell.

“The virus seems to be taking advantage of programs that these immune cells use to communicate—except that instead of communicating with soluble proteins, or by surface molecules interacting with other surface molecules, the whole virus is being translocated. It’s a very intimate exchange of genetic material.”

Ben made the study possible when he inserted a gene that codes for the green fluorescent protein (GFP), a molecule originally isolated from a species of jellyfish, into an infectious HIV particle. The protein glows when exposed to blue light, making it visible on digital video. The actual images were captured in collaboration with his colleagues at the University of California, Davis, using advanced live-cell video-imaging technology.

“Apparently, there’s a lot of cell biology that we know nothing about,” Ben acknowledges. While this might seem daunting, it also opens new possibilities for HIV vaccine development. Previous efforts to create an HIV vaccine have centered on priming the immune system to recognize and attack surface proteins of virus that freely circulates in the blood. Ben’s study suggests that such vaccines have largely failed because a large amount of HIV is directly transferred between cells, out of the antibodies’ reach. “We need to focus on stimulating the production of antibodies that can specifically block cell-to-cell infection,” he says.

Based on this breakthrough, Ben was recently awarded an Avant-Garde Award for HIV/AIDS research from the National Institute on Drug Abuse, part of the National Institutes of Health (NIH). The award, one of just four given in 2009, is intended to stimulate high-impact research that may lead to groundbreaking opportunities for the prevention and treatment of HIV/AIDS in drug abusers.

“By supporting bold investigators with unexplored ideas, we hope we can find new approaches to eradicating the terrible public health toll of HIV/AIDS,” says NIH Director Francis Collins.
On Bones, the popular television drama, Dr. Temperance Brennan, a forensic anthropologist, can tell volumes about how an individual lived and died from analyzing his or her skeletal remains. Should she ever need to know why a person’s bones became weak and brittle or developed abnormally, she might want to consult Shoshana Yakar, PhD, Associate Professor.

Shoshana’s research focuses on the signaling pathways that regulate the growth, development, and repair of bones. In this real-life laboratory drama, one of the main characters is insulin-like growth factor 1 (IGF-1), which acts like insulin (hence its name) but also has many growth-promoting roles throughout the body.

“Most IGF-1 is produced by the liver, in response to growth hormone, and is released into the serum [or blood],” explains Shoshana, who was born and raised in Israel. “But it’s also made within the tissues. I stepped into this field to understand the difference between serum IGF-1 and tissue IGF-1.” That was five years ago, and ever since she has been creating, through genetic engineering, various mouse models of IGF-1-deficiency. In effect, these first-of-their-kind models allow researchers to selectively control tissue IGF-1 production in a time-specific manner, yielding new insights into growth abnormalities, osteoporosis, menopause-related bone loss, aging, obesity, and diabetes.

Shoshana is also exploring links between IGF-1 and the immune system, which may have implications for the treatment of cancer. “People with low levels of IGF-1 are at risk for different malignancies, including breast and prostate cancer,” she explains. “This raises the possibility of inhibiting tumor growth by targeting the IGF-1 receptor, blocking the action of the molecule.”

Shoshana credits her productivity to finding the right academic home. After earning a PhD in human genetics at Tel Aviv University in Israel, she left to pursue postdoctoral studies at the National Institutes of Health. She had hoped to return to Israel but, at the time, no institution there had the facilities to support her work. Instead, she landed a coveted position as an NIH staff scientist, free of worries about job security and the need to write grants.

Some four years later, she gave it all up. NIH’s research priorities changed, affecting the direction of her work. So, at the invitation of her former NIH mentor, Derek LeRoith, MD, PhD, Professor and Chief of Endocrinology, Diabetes and Bone Diseases, she relocated to Mount Sinai. “The first two years were very difficult,” she admits. “It was scary having to compete for grants. But coming here improved my science and focused my research. I’ve been lucky to find the right collaborators.”

Like Dr. Brennan, Shoshana spends long hours in the lab, driven by sheer “curiosity,” she says. “I just have to understand what is going on.” Interestingly, she was the first in her family to pursue a career in science. “And when they see how hard I work, they say I will be the last,” she says with a hearty laugh.
You never know when and where a life-changing epiphany is going to occur. For Stephen Berns, MD, a third-year resident in the Department’s Internal Medicine Residency Program, it was during a college archaeological dig in Oaxaco, Mexico, where he was studying how the first people got to South America. Stephen never did figure that out. “But from that dig,” he says, “I learned that it wasn’t for me to be so isolated from people.”

Instead of pursuing a career in biological anthropology, he decided to become a doctor, enrolling at Mount Sinai. Stephen is now planning for a career combining palliative care and hematology-oncology.

But there’s still a bit of the anthropologist in him. In medical school, he ventured down under to work in a clinic for the Maoris, New Zealand’s aboriginal tribe. The experience struck a chord, so much so that he jumped at a recent opportunity to join a Mount Sinai research team in Brazil’s Pantanal, the world’s largest wetland.

In an unusual partnership, Mount Sinai’s Global Health and Emerging Pathogens Institute and the Department of Medicine have been collaborating with Panthera, a conservation group. Panthera is working in the Pantanal to protect critical jaguar habitat and establish a replicable model where cattle ranching is both financially profitable and compatible with jaguar conservation. The collaboration, which was spotlighted in a 2009 National Geographic article, was born of a longstanding friendship between Alan Rabinowitz, PhD, President of Panthera, and Paul Klotman, MD, Chairman of Medicine. Their shared objective is to protect the animals while improving the health and well-being of the cattle ranchers.

On this particular trip, the Mount Sinai team ventured to the Pantanal to launch a study of the links between animal and human diseases. “Just looking at H1N1, or swine flu, it’s obvious that we interchange viruses with animals very often,” Stephen explains. “We need to learn more about how this occurs. It’s an interesting place to look at this issue—a remote population that works with animals far away from the cities.” And remote it was. Getting there involved three flights, a five-hour drive, and a boat ride.

Mount Sinai’s team is also working to improve the health of Pantanal’s residents by providing medical supplies, educating health care providers, and conducting needs assessments.

For most of his month-long stay, Stephen served as the region’s lone physician, working with just a stethoscope, first-aid kit, and basic medicines. He reveled in the challenge of bridging the cultural divide and in the rustic conditions. “In a rural setting, it’s just you and your patient,” he says. “You can change people’s lives with simple interventions.”

Most of the health problems he encountered were relatively routine—colds, minor traumas, infections from cuts, and rashes such as scabies. “The population is relatively young, so there was little chronic disease like diabetes and hypertension. But we did learn that they don’t eat very healthily. They have few vegetables in their diet, so one of the things we did was to start a garden,” he reports.

Back home, Stephen still has thoughts of the Pantanal. “I would love to go back,” he says. “It was such a great learning experience.”
Everyone wants a doctor who is empathetic, caring, and communicative, but are these ideals possible to measure and improve? Is it possible to create a department and hospital in which every physician meets the highest standards of professional behavior?

These are the type of questions that David T. Stern, MD, PhD, Professor and Vice Chair for Professionalism, grapples with every day, with the ultimate goal of improving patient satisfaction and the outcomes of care.

By and large, medical professionalism is taught in what educators call the hidden curriculum. “The hidden curriculum teaches the values and culture of medicine, not what we think and how we treat, but how we behave as physicians. It is taught in on-call rooms, in elevators, in the cafeteria,” says David, one of just a handful of MDs nationwide with a PhD in education.

“The hidden curriculum teaches some of these ideals well, like responsibility and confidentiality,” he notes. “But it also teaches behaviors we don’t intend, like interprofessional disrespect — doctors demeaning other doctors or yelling at nurses. It’s particularly pervasive in academic medicine.” (Think: TV’s Dr. House.)

It was during his doctoral studies that David first learned about medicine’s hidden curriculum. Few researchers, he realized, had given it much attention, thus no one really understood how to improve upon it. Like any good scientist, he knew that if he wanted to address a problem, he had to be able to quantify it. Over the next decade, his research focused on identifying when, where, and how doctors learn professional behaviors, and then on how to measure professional behavior for evaluation, certification, and prediction of future behavior. His work culminated in the publication of Measuring Medical Professionalism, the go-to reference in the field.

At Mount Sinai, one of David’s roles is to identify physicians who have gone astray and to intervene. The most egregious offenders are easy to identify (from unsolicited patient complaints) and fortunately quite rare. But they can cause a lot of problems. “In medical centers where this has been studied, between five and nine percent of the physicians account for half of the complaints,” says David.

“My first task is to sit down with these physicians and ask, ‘What’s troubling you? Are things okay at home?’” he continues. “People’s lives are complicated, and sometimes it affects their performance as physicians.” Most often, the reasons for physician misbehavior are multifactorial, and the best solutions involve improving the context in which care is provided. “I’ve never met a physician who did not firmly believe he was always acting in the patients’ best interest,” David says. “The challenge is usually to create an environment of clinical care that promotes the professional behaviors we expect.”

Even the best doctors can be swayed by circumstance. “Context, in my view, trumps everything. If you put generally well-meaning people into bad situations, some will do bad things,” he says. The good news is that these behaviors can usually be changed by putting doctors in supportive environments, alongside exemplary role models, and calling malefactors to task when they misbehave.

The hope, and the expectation, is that better care will follow. But it won’t be left to chance, says David, who is collecting data to determine which interventions work and which don’t.

Dr. David Stern is revealing the hidden medical curriculum and holding his fellow physicians accountable.
The Department of Medicine received $71 million in funds from the NIH in 2008.

Mount Sinai School of Medicine was ranked 23rd in the nation by *US News and World Report*.

The Mount Sinai Hospital was ranked among the top 20 hospitals in the nation by *US News and World Report*.
Unprecedented Opportunities: Rapid Response

In 2008 the Department of Medicine (DOM) received over $71 million in funding from the National Institutes of Health (NIH). Even with such a strong base from which to start, entering 2009 the landscape for research funding looked bleak. With world economies collapsing and major financial institutions closing their doors, all signs pointed to increasing competition for shrinking research funds.

The DOM’s strategy for successful competition was to continue the recipe that had worked in previous years — increase grant submissions and retain and recruit outstanding researchers with the creativity and drive necessary for great science.

And then, President Obama announced the American Recovery and Reinvestment Act (ARRA). Faced with unprecedented funding opportunities that required rapid action, a new strategy was clearly necessary.

Recently recruited as Vice Chair of Research and not even on the job yet, Yaron Tomer, MD, Professor flew in from Cincinnati, helped decipher the complicated and rapidly changing guidelines created by the various NIH institutes for distribution of funds, and developed a plan that helped the Department of Medicine attract significant ARRA funding to advance critical research, create new jobs in NY and further the DOM’s mission of research targeted to improving patient outcomes.

Successful implementation of this strategy led to funding of $8.5 million in grants. This includes two highly competitive and prized Challenge Grants, a new funding mechanism developed by the NIH specifically to direct ARRA funding to jumpstart projects with a high impact in biomedical or behavioral science and/or public health. The two Challenge Grants were awarded to principle investigators Lloyd Mayer, MD, Dr. David and Dorothy Merksamer Professor and Chief of Clinical Immunology and Gastroenterology and Paul Frenette, MD, Fishberg Professor of Medicine.

DOM faculty members also continued to compete successfully for traditional NIH funding mechanisms.
Boost for Clinical and Translational Research

Many DOM faculty members were instrumental in the success of Mount Sinai’s application to become a member of the federal Clinical and Translational Science Award consortium, resulting in a $34.6 million grant to the School.

This award supports the establishment of the Mount Sinai Institute for Clinical and Translational Sciences. Under the leadership of Hugh Sampson, MD, Dean of Translational Biomedical Sciences and Professor of Pediatrics, the new Institute is redesigning the research infrastructure to integrate functions across departments. The Institute is also dedicated to developing the future of translational medicine through a new PhD program.

Within the Department of Medicine changes are also being implemented to accommodate contemporary clinical and translational research. The Clinical Trials Office has been renamed the Clinical and Translational Trials Office. More than new nomenclature, this change marks a broadening of the Office’s mission. Previously focused on industry sponsored studies, the office under the leadership of Marie Teil, MD, Assistant Professor, has expanded to provide support and resources for all studies involving human subjects regardless of the source of funding.

Renal Revolution

While most people still view manufacturing human tissue as the stuff of science fiction, John Cijiang He, MD, PhD, Associate Professor and colleagues from Mount Sinai and two other institutions have received $6 million from the NIH to build human kidney tissue.

Along with Ravi Iyengar, PhD, Director of the Experimental Therapeutics Institute, Dr. He is co-principle investigator of a new Transformative Research Projects program from the NIH to systematically assemble functional human kidney tissue from tissue modeled on a computer. If successful, the research—which ties together several emerging technologies including virtual tissue modeling and nanofabrication—could lead to a more predictable way for researchers to engineer tissue outside the body and, consequently, to screen for new drugs.

Erwin Böttinger, MD, Professor and Director of the Charles R. Bronfman Institute for Personalized Medicine was also the recipient of a major grant for kidney research. With these funds the New York Chronic Kidney Disease (CKD) Biomarker Program is being established to collaborate with the emerging NIH CKD Biomarker Consortium to discover and develop promising biomarkers to predict which CKD patients are most at risk for developing end-stage kidney disease. Peter Heeger, MD, Professor, received a competitive renewal for five years for a large multi-center study of allograft survival and function post kidney and heart transplant.

John Cijiang He, MD, PhD, Associate Professor and colleagues from Mount Sinai and two other institutions have received $6 million from the NIH to build human kidney tissue.
Meeting Growing Demand

**FPA Volume**

Over the last several years the Department of Medicine’s Faculty Practice Associates has grown significantly. The growth is attributable to several factors. Changes in both back- and front-end processes have transformed operations to increase efficiency and reduce expenses. These changes have also improved the way claims are submitted to insurance companies helping to ensure reimbursement for services provided.

However, medical practice is about far more than operations. Patients seek out Mount Sinai Medicine physicians that they know will get them the highest quality care. Growth has been largely driven by demand. Physicians have made changes in their schedules and practice management to allow them to see more patients. Additionally, the success of the practices has facilitated recruiting new clinicians, expanding the services we provide and meeting the increasing demand.

**Length of Stay Index**

No one wants to stay in the hospital longer than is absolutely necessary. Not only do patients want the comfort of their familiar environs, extensive data proves that the longer a patient stays in a hospital the greater the chances of a complication arising. Therefore, quality care demands that patients receive the care they need as efficiently and rapidly as possible so that they may return home as soon as possible.

The Length of Stay Index is a ratio of the amount of time patients actually spend in the Hospital over the projected amount of time patients with similar conditions are expected to stay in the hospital. The significant improvement in Mount Sinai’s Length of Stay Index is attributable to numerous initiatives including enhancing communications between various care providers, improving chart documentation, and clearer communication between care providers and patients and families regarding post-discharge care.

**Patient Discharges**

The number of patients seeking and receiving care on the Medicine units of The Mount Sinai Hospital increased in 2009. Physicians have been managing this increase while at the same time making significant strides in improving processes and procedures to ensure quality of care.

Recruitment of outstanding clinicians, expansion of the Hospitalists Program, continued excellence on the Teaching Service all contribute to this growth. Under the leadership of Navneet Kathuria, MD, Vice Chair for Quality, and with the support of grants from the DOM’s Advisory Board numerous studies are conducted every year throughout the Hospital to evaluate every aspect of patient care and implement action plans for improvement.

In addition to the growth in overall Hospital Medicine volume, specific areas have grown substantially. The Endoscopy Service had a 16% growth in volume in 2009. A new Open Access Program for scheduling introduced with the leadership of Sharmila Anandasabapathy, MD, Director of Endoscopic Services facilitated much of this growth.
The 2009 intern class included graduates from 25 medical schools, eleven of whom hold advanced degrees in addition to their MD.

- **25 Medical schools represented**
- **33 Categorical**
- **11 Advanced Degrees**
- **2 Internal Medicine/Genomics**
- **4 Med/Peds Global Health**
- **12 Preliminary**
- **4 Research**
Mount Sinai's Internal Medicine Program continues to draw the best physicians-in-training from across the country. The 2009 intern class included graduates from 25 medical schools, eleven of whom hold advanced degrees in addition to their MD.

According to Mark Babyatsky, MD, Professor and Vice Chair of Education “all the spots in this class filled with individuals who were among our top choices.” Part of what has made this program one of the most sought after in the nation is the DOM’s commitment to training physicians to meet future challenges in medicine. Today that translates into providing opportunities for pursuit of specific interests throughout training.

As Paul Klotman, MD, Murray M. Rosenberg Professor and Chairman of Medicine pointed out in an editorial printed in The New York Times, “The medical resident training structure currently in use was developed a century ago when all patients received most of their care as inpatients. Today, all but the most acutely ill are treated in the outpatient setting.” In addition to the change in how care is provided, medical research has grown far more complex and international borders have ceased to provide barriers to the spread of disease.

For all those reasons, one size fits all medical training is not a feasible option. The Mount Sinai Internal Medicine Program already offers several training programs for individuals with specific interests and career aspirations including the Research Program, the Internal Medicine/Medical Genomics Program (the largest of its kind in the country) and the Internal Medicine/Pediatrics Program with special focus on Global Health.

The Intern Class of 2010 will have an additional option, the Primary Care Program. In the same New York Times editorial, Dr. Klotman pointed out that, “As we continue to debate health care reform, it is essential to voice the fact that access to care relies on more than insurance. Ensuring that our most promising physicians-in-training are attracted to and properly trained in primary care medicine will grant all Americans access to doctors capable of delivering the highest quality care.”

Toward this goal, the new Primary Care Program is a three-year program designed to train outstanding internists for careers in academic primary care with a major focus on outpatient medicine. Residents in this Program will have extensive opportunity to gain experience in outpatient settings while also pursuing research in education, advocacy, policy, primary care clinical research, or other areas of interest.

“Ensuring that our most promising physicians-in-training are attracted to and properly trained in primary care medicine will grant all Americans access to doctors capable of delivering the highest quality care.”

Paul Klotman, MD excerpted from the New York Times, October 6, 2009
Department of Medicine faculty members are widely recognized by their peers as leaders.
Hail to the Chiefs

Department of Medicine faculty members are widely recognized by their peers as leaders. This is particularly evident in the frequency with which faculty are selected for leadership roles within national and international societies.

Founded in the 1950’s by leading liver specialists (including Mount Sinai’s Hans Popper and Leon Schiff), the America Association for the Study of Liver Diseases (AASLD) is the leading organization of scientists and health care professionals committed to preventing and curing liver disease. Scott Friedman, MD, Irene and Dr. Arthur M. Fishberg Professor and Chief of Liver Diseases was the seventh Mount Sinai faculty member to serve as President in 2008-2009, Dr. Friedman worked with the leadership roles within national and international societies. Recognized by their peers as leaders. This is particularly evident in the frequency with which faculty are selected for membership of AASLD to advance the science and practice of hepatology through educational conferences, training programs, professional publications, and partnerships with government agencies and sister societies.

Barbara Murphy, MD, Irene and Dr. Arthur M. Fishberg Professor and Chief of Liver Diseases served as President of the American Society of Transplantation (AST) in 2008-2009. AST is an international organization of transplant professionals dedicated to advancing the field of transplantation through the promotion of research, education, advocacy, and organ donation to improve patient care.

The current President of the International Society for IGF Research is Derek LeRoith, MD, PhD, Lillian and Henry M. Stratton Professor and Chief of Endocrinology, Diabetes and Bone Diseases. This organization is devoted to basic, translational and clinical research on the insulin-like growth factors (IGFs), their receptors and their binding proteins (IGFBPs).

As President of the American Thyroid Association for 2009 – 2010, Terry Davies, MD, Florence and Theodore Baumrucker Professor is helping this organization realize its mission of promoting thyroid health and understanding of thyroid biology.

The membership of the Association of Chiefs of General Internal Medicine (ACGIM) elected Thomas McGinn, MD, Clifford L. Spingarn, MD, Professor and Chief of General Internal Medicine, as their President. ACGIM provides professional development to chiefs of internal medicine through leadership and management training, forums in which to exchange information; and personal development and networking. The organization also works to influence and educate institutional leaders about issues relevant to academic general internal medicine.

David T. Stern, MD, PhD, Professor and Vice Chair of Professionalism, is President of the Institute of International Medical Education. This organization is entrusted with the development of “global minimum essential (core) requirements” for physicians throughout the world, as well as the task of collecting global information on different aspects of education of the medical profession.

Joseph Yoe, MD, Assistant Professor is serving as President of the Myanmar American Medical Education Society, which promotes the culture and the exchange of scientific information in the Myanmar Medical Community.

Other DOM faculty currently holding leadership positions in professional societies include: Valentin Fuster, MD, PhD, Richard Gorlin MD/Heart Research Foundation; Michelle Kim, MD, Assistant Professor, Membership Chairperson of the New York Society of Gastrointestinal Endoscopy; Paul Klotman, MD, Murray M. Rosenberg Professor and Chair of Medicine, Chair of the Research Committee of the Association of Professors of Medicine; Lloyd Mayer, MD, Dr. David and Dorothy Merksamer Professor and Chief of Clinical Immunology and Gastroenterology, Chairman of the National Scientific Advisory Committee of the Crohn’s and Colitis Foundation of America; Suzanne Rose, MD, Professor, Chair Elect of the Committee on Education and Training of the American Gastroenterological Association; Detlef Schlondorff, MD, Visiting Professor, Director of the Grants Program of the American Society of Nephrology; Joseph Vassalotti, MD, Associate Clinical Professor, Chief Medical Office of the National Kidney Foundation; Jonathan Winston, MD, Associate Professor, Chair of the Scientific Advisory Council of the Kidney and Urology Foundation of America; and Robert Yanagisawa, MD, Associate Professor, Vice President of the Japanese Medical Society of America.
The membership rosters of the most prestigious societies in medicine include numerous members of the Department of Medicine.

**NATIONAL ACADEMY OF SCIENCES**
Barry Coller, MD, Professor
Kurt Hirschhorn, MD, Professor
Rosalyn Yalow, PhD, Distinguished Service Professor and Nobel Laureate

**INSTITUTE OF MEDICINE**
Barry Coller, MD, Professor
Valentin Fuster, MD, PhD, Professor
Kurt Hirschhorn, MD, Professor

**ASSOCIATION OF AMERICAN PHYSICIANS**
Steven Burakoff, MD, Professor
Barry Coller, MD, Professor
Terry Davies, MD, Professor
Scott Friedman, MD, Professor

**AMERICAN SOCIETY FOR CLINICAL INVESTIGATION**
Steven Atlas, MD, Associate Professor
Margaret Baron, MD, PhD, Professor
Erwin Böttinger, MD, Professor
Barry Coller, MD, Professor
Terry Davies, MD, Professor
Paul Frenette, MD, Professor
Scott Friedman, MD, Professor
Valentin Fuster, MD, PhD, Professor
Janice Gabrilove, MD, Professor
Kurt Hirschhorn, MD, Professor

**NEW YORK Magazine’s “Best Doctors ‘09” issue listed 24 Mount Sinai DOM faculty members.**

**CARDIOLOGY**
Sanford Friedman, MD, Associate Clinical Professor
Valentin Fuster, MD, PhD, Professor
J. Anthony Gomes, MD, Professor
Jonathan Halperin, MD, Professor

**CLINICAL IMMUNOLOGY**
Ellen Buchbinder, MD, Assistant Clinical Professor
Michael Chandler, MD, Assistant Clinical Professor
Charlotte Cunningham-Rundles, MD, PhD, Professor

**HEMATOLOGY AND MEDICAL ONCOLOGY**
Janice Gabrilove, MD, Professor
Steven Gruenstein, MD, Associate Clinical Professor
George Raptis, MD, Associate Professor

**GASTROENTEROLOGY**
Lawrence Cohen, MD, Associate Clinical Professor
Steven Itzkowitz, MD, Professor

**PULMONARY, CRITICAL CARE AND SLEEP MEDICINE**
Maria Padilla, MD, Professor

**RHEUMATOLOGY**
Peter Gorevic, MD, Professor
Mark Horowitz, MD, Clinical Instructor

Pictured below: Charlotte Cunningham-Rundles, MD, PhD, George Raptis, MD, Peter Heeger, MD, and Maria Padilla, MD.
Awards and Honors

Every year, Department of Medicine faculty members receive numerous awards and honors from professional societies, foundations, universities and other organizations. This sampling of awards from the past year captures some of the many accolades conferred upon the faculty.

The Mount Sinai Hospital was included in the Honor Roll of the best hospitals in the nation in US News and World Report. Mount Sinai was ranked highly in 11 specialties including many medicine subspecialties such as cancer, digestive disorders, heart disease, and kidney disorders.

The Mount Sinai Medical Center received a silver medal of honor from the Department of Health and Human Services for success in increasing the number of organs available for transplantation.

A paper authored by Norbert Brau, MD, Associate Professor, Mirella Salvatore, MD, Adjunct Assistant Professor and colleagues was one of the top 10 cited papers in the Journal of Hepatology from the years 2006 - 2008.

FADI AKAR, PHD Assistant Professor Scholar. Irma T. Hirsch and Monique Well-Caulier Trusts Award JULIE MAGARIAN BLANDIER, PHD Assistant Professor Scholar Award in Basic Research, American Cancer Society G. Jeanette Thorbecke Award, Society for Leukocyte Biology BENJAMIN CHEN, MD Assistant Professor Avant-Garde Award for Innovative HIV/AIDS Research, National Institute on Drug Abuse STEVEN BURAKOFF, MD Lillian and Henry M. Stratton Professor and Director of the Tisch Cancer Institute Lifetime Achievement Award, American Association of Immunologists PETER ELKIN, MD Professor Mastership, American College of Physicians VALENTIN FUSTER, MD, PHD Richard Gorlin, MD/Heart Research Foundation Professor, Chief of Cardiology and Director of the Zena and Michael A. Wiener Cardiovascular Institute Libin Prize, International Canadian Award, Libin Cardiovascular Institute of Alberta Arrigio Recordati International Prize, International Cardiovascular Jury on behalf of Arrigio Recordati Family Honorary Academician Award and Honorary Member, National Academy of Medicine of Mexico Distinguished Investigator Award, XXI Interamerican Congress of Cardiology JOSEP LLOVET, MD Visiting Associate Professor Visiting Professor Award, University of Fudan, Shanghai Landon Innovator Award for International Collaboration, American Association for Cancer Research GOPI PATEL, MD Assistant Professor Barry Farr Award, Society for Healthcare Epidemiology of America DETLEF SCHLONDOFF, MD Visiting Professor International Prize Luis Hernando for Nephrology, Spanish Renal Association THERESA SOKIANO, MD, MPH Assistant Professor Eric Baron House Call Clinician of the Year Award, American Academy of Home Care Physicians DAVID STERN, MD, PHD Professor and Vice Chair of Professionalism John E. Chapman Medal, Vanderbilt University RICHARD WARNER, MD Professor The first Lifetime Achievement Award, North American Neuroendocrine Tumor Society

DOM Honors

In addition to the many outside awards showered upon our faculty, Department of Medicine faculty members are often recognized with special honors within Mount Sinai and the Department. Advisory Board member Thomas Kaplan provided generous funding to create a new set of honors, the Kaplan Awards for Excellence in Medicine. Awarded annually, the Kaplan Awards recognize those faculty members who excel in training the next generation, provide high quality clinical care, and/or conduct innovative research.

This year 26 awards were conferred, including two new award categories designed to recognize individuals whose contributions reach across multiple departmental missions.

Named for Lester Kuhn, MD who passed away in 2009 after decades of service to the Department, the Lester Kuhn Award was created to honor an individual who advances the goals of the Department of Medicine through his or her daily actions and interactions. The first recipient of the Lester Kuhn Award was Robert Klafter, MD, Assistant Clinical Professor.

The Chairman’s Award was created this year to honor a faculty member whose contributions enrich the Department in numerous ways. The first recipient of this award was Navneet Kathuria, MD, Vice Chair for Quality for all he does to enhance quality of care, improve educational programs, and grow the Department.

The Mount Sinai Hospital was included in the Honor Roll of the best hospitals in the nation in US News and World Report. Mount Sinai was ranked highly in 11 specialties including many medicine subspecialties such as cancer, digestive disorders, heart disease, and kidney disorders.
Board Benefits

Under the leadership of Chairs Joshua Harris, President of Apollo Management, LP and Michael Fisch, President, American Securities Capital Partners, Sterling Equities, Inc., the DOM Advisory Board has flourished, growing in numbers and in contributions to the missions of the DOM. The 46 current members, are business leaders and dedicated volunteers who share an intellectual curiosity about medicine and the business side of health care.

Board members commit their time and money to support and advance the missions of the DOM. Quarterly meetings educate and expose members to cutting-edge initiatives and developments in medicine. As knowledge and involvement increases for members of the Board, many of them have made targeted, capital-level investments to support priority programs.

In 2009, funds from the Advisory Board helped support:

• early-stage, investigator-initiated clinical research projects to improve outcomes for patients with inflammatory bowel disease.

• a screening program for hepatitis.

• ongoing research on HIV-associated nephropathy.

• creation of a new endowment for the Klaudia Ewa Knapik Memorial Award. This Award is given annually to the intern with the strongest focus on professionalism, patient care, and humanism in medicine. The 2009 Award was given to David Sousa, MD.

• A joint program between Mount Sinai and Panthera to improve the health of humans and panthers in the Pantanal (for information on this, see the profile of Dr. Berns on page 28.)

• A lecture series focused on zoonotic diseases.

• A Global Health Research Grant which was awarded to Christina Wyatt, MD, Assistant Professor of Medicine (Nephrology) and Jennifer Jao, MD, fellow (Infectious Diseases) to support a study in Cameroon to determine the prevalence of markers for kidney disease in pregnant women who are HIV positive.

• Three innovation grants designed to provide support to develop new ideas requiring a new team and collaborative science approach with interactions across disciplines and/or subspecialties. The 2009 Innovation Grants were awarded to fund:

  Christoph Ruettner, MD, Assistant Professor of Medicine (Endocrinology, Diabetes and Bone Disease) to investigate the roles played by the hormones insulin and leptin in acute lung injury and acute respiratory distress syndrome with the hope of developing novel treatment strategies.

  Andrea Branch, PhD, Associate Professor of Medicine (Liver Diseases), Theresa Chang, PhD, Assistant Professor of Medicine (Infectious Diseases), Stefanie Factor, MD, Assistant Professor of Medicine (Infectious Diseases) and Thomas Schiano, MD, Professor of Medicine (Liver Diseases) to develop a cell culture model in which to study HIV-hepatitis C coinfection.

  Simon Daefler, MD, PhD, Assistant Professor of Medicine (Infectious Diseases) and Saghii Ghaffari, MD, PhD, Assistant Professor of Gene and Cell Medicine to investigate the process of bacteria entering the cell with the long term goal of identifying novel targets for anti-infectious interventions.

These projects and others supported by the Advisory Board give faculty members the freedom to pursue ideas with great potential – a truly precious contribution.
The Samuel Bronfman Department of Medicine
of The Mount Sinai Medical Center

Paul E. Klotman
Chairman of the Samuel Bronfman Department
of Medicine
Murray M. Rosenberg Professor of Medicine

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Acknowledgements

WRITING & EDITING
Debra Kaplan, MSc

WRITING
Gary Goldberg

PHOTOGRAPHY
Richard Cormack, cover and pgs. 4 – 31
Matthew Septimus, pgs. 32 – 51

PRINTING
Finlay Printing

DESIGN
Thinkso Creative