ACCELERATING SCIENCE—ADVANCING MEDICINE

Mount Sinai’s Core Values: Integrity, Excellence, and Altruism

Challenging times give rise to great opportunity. Capitalizing on that opportunity means achieving greatness more effectively, more efficiently, and with more creativity. It requires intense self-scrutiny: What can I, or we, do better? It also requires an unwavering foundation of core values rooted in integrity, excellence, and altruism.

Our incoming students and residents are entering medicine during the most exciting time in its history. Never before have so many scientific breakthroughs reached clinical practice, and never before have we been closer to providing adequate access to care for all Americans. It is also the most dynamic and productive time in the history of Mount Sinai School of Medicine. Our science, clinical care, and educational programs are among the best in the country. Our ties to the communities we serve provide a purpose and vision for all the work we do. And yet, the biomedical environment has never been more challenging. The Affordable Care Act, the flattening of the National Institutes of Health budget, and the challenging economy all present unique obstacles that must be overcome in order to maintain our standards and achieve even greater success.

At Mount Sinai, we are confronting this new era in health care and biomedical science by being even more forward-thinking and ambitious in our programs, our curriculum, and our research. Our philosophy is to approach education and training by setting the highest possible standards of excellence, while nurturing tomorrow’s physicians in an environment that is collegial and attuned to our trainees’ needs. We believe that many of our programs represent our innovative approach to education. They are student-centric, yet intensely focused on the most critical issues facing society today. While we continue to work hard to improve education and the medical school environment, our true purpose is to have the greatest possible impact on the health of our society. We strive to do that through science, education, the provision of clinical care, and the overarching concept of service for the greater good.

Today, there is a dire societal need for bright, passionate students to take on the tough challenges in translational science, primary care, and global health. Despite that, there has been a disconcerting national trend away from these fields, primarily because of the large debt burden that our graduates carry. We are highly cognizant of that issue, and we have developed innovative methods for raising funds both to support meaningful scholarships and to create loan forgiveness programs for our students.

Medicine is as complex today as it has ever been. Medicine also holds more promise today than it ever has. Our goal as medical educators is to capitalize on the wonderful opportunity before us, and turn it into the formative experience of a lifetime for our trainees.

David Muller, MD, Dean for Medical Education, Professor and Chair, Medical Education, Professor Medicine

In 2006, a group of faculty leaders banded together to envision what an expanded global health program at Mount Sinai School of Medicine might look like.

Led by Philip J. Landrigan, MD, MSc, Dean for Global Health and the Ethel H. Wise Professor and Chair of the Department of Preventive Medicine and Professor of Pediatrics, the team included Ramon Murphy, MD, MPH, Associate Professor, Clinical Pediatrics; and Angela Diaz, MD, Program and Research Director of Mount Sinai’s Adolescent Health Center and Professor, Preventive Medicine.

Recruited and charged with developing a global health training center under the auspices of the Department of Medical Education were Natasha Anandaraja, MD, Director of the Global Health Training Center; Sigrid Hahn, MD, Assistant Professor, Emergency Medicine; Nils Hennig, MD, Assistant Professor, Preventive Medicine and Pediatrics, and

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Jonathan Ripp, MD, Assistant Professor, Medicine (General Internal Medicine) and Medical Education. With sustained and generous support from the Mulago Foundation, these core faculty have designed and implemented curricula and research programs for medical students and residents, and are in the process of establishing partner sites in Africa and Latin America.

Dr. Landrigan’s research has long helped shape global environmental health policy. His seasoned perspective will also further enhance the outstanding work already being done, while expanding dramatically on our global health research portfolio.

Dr. Anandaraja and her colleagues recognized early on that there was a groundswell of interest from incoming medical students and residents. In one teaching session, Dr. Hahn asked incoming medical students how many hope to have a global health experience. Three-fourths of the students in the room raised their hands, dramatically illustrating the importance of having a living curriculum, outstanding mentors, and well-designed research projects that students can use as a platform for building resources in underdeveloped countries.

Having recently returned from Mozambique, Dr. Anandaraja is working with other Global Health faculty, three first-year medical students, and an NGO to establish a training program for lay community health workers and traditional birth attendants. Their aim is to increase rural villagers’ access to basic health care, and to reduce the number of preventable deaths among women, infants, and young children.

Mount Sinai Global Health is committed to changing the culture of the School of Medicine. We are integrating global health topics into the core curriculum, nurturing global health programs in all our clinical departments, and creating opportunities for students and residents to pursue this greatly needed work for the rest of their professional lives. Our goal is nothing short of a better world and better lives for its inhabitants.

**Young Scientist Receives Two National Research Awards**

Sarah Ann Anderson wants to gain greater insight into the link between addiction and depression. Last year, as a fourth-year MD/PhD student at Mount Sinai School of Medicine, Ms. Anderson was honored to receive the Wilbert C. Jordan Award for Basic Sciences. Now she is one of five Student National Medical Association Research Fellows to receive the David E. Satcher, MD, Research Fellowship, named for the first African American man to serve as U.S. Surgeon General.

Ms. Anderson is exploring differences in neuropeptides in the brain among patients who were primarily heroin users, and comparing them to those who had depression with no history of drug abuse. Her goal is to understand if there is a common disturbance—a link—in the brain between these two patient groups.

Her research findings indicate that both heroin abusers and depressed patients show a decrease in one neuropeptide, prodynorphin, in the amygdala, the area of the brain known to regulate emotion. When this neuropeptide in the brain is altered in rats, Ms. Anderson hypothesizes that they display behaviors related to depression and drug addiction. Thus, finding a commonality between these two groups can help explain the high comorbidity rates of depression with addiction.

This success of Humanities in Medicine led to the design of SciMed which will focus on computational sciences and genomics.

**New SciMed Track to Start Recruiting in 2012**

When Mount Sinai School of Medicine launched its Humanities and Medicine (HuMed) program in the late 1980s, it gave select college students the chance to enrich their undergraduate education in the humanities and social sciences, unencumbered by traditional pre-med requirements or studying for, and taking, the MCAT exam. Instead, they would enter medical school with a broad and deep understanding of the human condition. Today, one-quarter of each entering class is recruited through this track and performs at least as well as their peers.

This success led to the design and implementation of a Science and Medicine Track (SciMed) that will focus on computational sciences and genomics. This track will recruit its first class in the spring of 2012.

SciMed students will have the opportunity to apply to Mount Sinai School of Medicine in the second semester of their sophomore year. If accepted, they will be allowed to forego the traditional pre-med requirements and the MCAT, focusing instead on the areas of science they are passionate about, exploring independent research, and challenging themselves in courses that they otherwise might be reluctant to take. SciMed students will be eligible to apply to Mount Sinai’s MD/PhD program, our Doris Duke Clinical Research Fellowship, or PORTAL (Patient-Oriented Research Training and Leadership), our five-year dual MD/Masters in Clinical Research program.
EDUCATIONAL TECHNOLOGY

Targeted Technology Enhancements Drive Positive Change

In January of 2011, two educators responded to a major educational imperative: how to utilize the power of technology to enable deeper learning and to fundamentally change the nature of interaction between educators and students at Mount Sinai School of Medicine.

Rainier P. Soriano, MD, Associate Professor of Geriatrics and Medical Education, and Director of Educational Technology at Mount Sinai, and Noni Vidal, Director of Instructional Technology and Learning Systems at Levy Library, welcomed the challenge. They agreed that the question was not whether technology should be used to support education, but when and how to employ these technologies in critical areas where they could potentially enhance learning.

Both Ms. Vidal and Dr. Soriano recognized that today's medical students are "millennial learners," the generation born between 1982 and 2002, who had never lived in a world without sophisticated computer technology. They understood that these learners are digital natives with digital expectations and, as such, want their medical education to be delivered using similar, if not better, methods than they experienced as undergraduates.

That meant that Levy Library, and the medical school at large, needed to evolve quickly to meet these changing needs, expectations, and ways of working.

The recent switch to the new Blackboard Learning Management System, which provides 24/7 access to course information and documents, and enables easy communication between professor and students, is one pivotal way to meet this goal. Another is an upgrade to our existing video capture technology, which will allow students to watch recorded material online or listen to an audio podcast at their convenience.

Ms. Vidal and Dr. Soriano also sought to empower faculty educators with the skills to judiciously and strategically incorporate educational technology into medical education. This can catalyze the shift, where educators no longer serve mainly as the distributors of content, but as facilitators of learning and assessors of competency.

Developments in educational technology are clearly laying the foundation for a revolution in medical education, allowing learning to be individualized, enhancing students' interactions with each other, and transforming the role of the faculty educator from disseminator to facilitator.

Mount Sinai faculty educators, through the leadership and guidance of Dr. Soriano and Ms. Vidal, aim to respond and rise to the challenges presented by these new technological tools, and by our medical students' expectations that these tools will be used wisely within the curriculum.

PHILANTHROPY

Faculty Launches the Parents Endowed Scholarship Fund

Mount Sinai School of Medicine families have a strong commitment to health care. In fact, both David Muller, MD, Dean for Medical Education, and Dennis Charney, MD, the Anne and Joel Ehrenkranz Dean of Mount Sinai School of Medicine and Executive Vice President for Academic Affairs of the The Mount Sinai Medical Center, are fathers of Mount Sinai medical students.

"Our goal is to build a culture of philanthropy among Mount Sinai parents, and we are thrilled that it has started with our own Mount Sinai faculty."

Lisa P. Harper, Esq., Director of Development, Medical Education

"That parent-child relationship in the School of Medicine got the two deans thinking about all the Sinai faculty members who have sons and daughters studying here. It turned out that we have more than 20 faculty parents of students," said Lisa P. Harper, Esq., Director of Development, Medical Education. Harper brought these faculty parents together and to date, 16 of them have pledged seed money to launch the new Parents Endowed Scholarship Fund. "Our goal is to build a culture of philanthropy among Mount Sinai parents, and we are thrilled that it has started with our own Mount Sinai faculty," Harper said.

Participating Faculty Parents Include

Michael Brodman, MD, Professor and Chair, Obstetrics and Gynecology; Michael J. Bronson, MD, Associate Professor, Orthopaedics; Burton A. Cohen, MD, Associate Clinical Professor, Radiology; Evan L. Flatow, MD, Lasker Professor and Chair, Chief of Shoulder Surgery, Leni & Peter W. May Department of Orthopaedic Surgery; Robert Friedman, Mount Sinai Trustee; Elisza Grez-Friedman, MD, Assistant Professor, Obstetrics, Gynecology and Reproductive Science; Stephen E. Goldstone, MD, Clinical Assistant Professor, Surgery; John Halperin, MD, Professor, Neurology and Medicine; Martin Harrington, MD, Assistant Clinical Professor, Surgery; Elizabeth Harrington, MD, Associate Clinical Professor, Surgery; Deborah Marin, MD, Associate Professor, Psychiatry, Geriatrics, and Palliative Medicine; Michael Marin, MD, Professor and Chair, Surgery, Vascular Surgery; Eric Nestler, MD, PhD, Director, The Friedman Brain Institute; Lisa Satlin, MD, Professor and Chair, Pediatrics and Medicine (Nephrology); Samin K. Sharma, MD, Professor of Medicine (Cardiology); and Mone Zaidi, MD, PhD, Professor of Medicine (Endocrinology, Diabetes, and Bone Disease), Geriatrics and Palliative Medicine.
Christopher de Haydu is taking a non-traditional scholarly year between his third and fourth years at Mount Sinai School of Medicine. Typically, students take scholarly years to expand their research base, but Mr. de Haydu says that he is undertaking what he believes will be both the opportunity and the adventure of a lifetime.

A recipient of the Paul Farmer Global Surgery Fellowship, Mr. de Haydu will work in a remote hospital in Cange, in the hills of central Haiti. He views his upcoming year as both a powerful opportunity to learn and a wonderful chance to help displaced, ill, and impoverished people whose lives are still adversely affected by the 2010 earthquake.

In addition to performing research throughout the year, Mr. de Haydu will provide day-to-day patient care, including participating in a wide variety of procedures with both local surgeons and visiting surgical missions from the United States. The year will afford him many opportunities and experiences he would never have had, he says, in the higher-tech and specialty-driven environment of surgery performed in America. He will also assist in newborn deliveries and he will visit patients in their homes—an environment where monitoring and care are highly limited.

Mr. de Haydu, who majored in philosophy in Georgetown University, is a member of Mount Sinai’s renowned Humanities in Medicine program. The fellowship is a joint program between Harvard Medical School and Partners in Health, a Boston-based non-profit that describes its mission as both medical and moral.