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THE CATHERINE AND HENRY J. GAISMAN

DIVISION OF PULMONARY, CRITICAL CARE & SLEEP MEDICINE



When Division Chief Michael Iannuzzi, MD, Florette and Ernst Rosenfeld and Joseph Solomon Professor of Medicine, was recruited in 2003, he began building upon Mount Sinai's superb reputation as a leader in respiratory disease research and patient care.

Over the past five years, the Division of Pulmonary, Critical Care and Sleep Medicine has witnessed significant growth in both clinical practice and research. For example, the number of inpatient cases managed by faculty in the Division increased 41 percent between 2001 and 2006 and the Division's case mix index—an expression of case complexity—increased significantly. Total grant funding to the Division rose 174 percent between 2002 and 2006.

A Stellar History, a Promising Future

Dr. Alfred Meyer, Mount Sinai's first pulmonologist, was the first physician in New York State to establish and promote sanatorium care for tuberculosis patients in the 1890s. Patients requiring supplemental oxygen also have Dr. Meyer to thank for his introduction of the oxygen tank into the inpatient hospital setting.

It was at Mount Sinai that one of the first sarcoidosis clinics was established in 1948. Subsequently, Alvin Teirstein, MD, Professor of Medicine, built on this pioneering work in sarcoidosis and expanded its purview to include research and treatment of other interstitial lung diseases.

Dr. Teirstein is now the Director of the Vivian Richenthal Institute for Pulmonary and Critical Care Research. In 2006 Catherine and Henry J. Gaisman, longstanding supporters of Mount Sinai, contributed funds for a new auditorium named in Dr. Teirstein's honor at Mount Sinai School of Medicine.

Sarcoidosis/Interstitial Lung Disease

The Mount Sinai Medical Center is classified as one of only ten Centers of Excellence for research in sarcoidosis. This is the largest program of its kind in the world.

Interstitial lung disease is one of Dr. Iannuzzi's primary research interests, along with the molecular genetics of lung diseases, minority health, and genetic susceptibility to lung disease.

In 2005 he published results from the first genome scan for the disease, which included the first discovery of genes that cause sarcoidosis. That same year, in another study, he confirmed the critical importance of sarcoidosis candidate genes in both African Americans and Caucasians.

In 2004 Maria Padilla, MD, Professor of Medicine, joined the faculty as Director of the Pulmonary Fibrosis and Interstitial Lung Disease Center and Co-Director of the Lung Transplantation Program along with Scott Swanson, MD, Professor of Cardiothoracic Surgery. This was a return to Mount Sinai for Dr. Padilla, who had trained at the Medical Center and previously served as a faculty member.

Lori Shah, MD, Assistant Professor of Medicine, was recruited in 2004 as Associate Medical Director of the Lung Transplantation Program. Dr. Shah is also developing an Adult Cystic Fibrosis Program to address growing needs as adults with cystic fibrosis are living longer, requiring more research as well as more intensive disease management.

To thank the Division for the services provided to Lucille Fennessy when she was treated for rapidly progressive interstitial lung illness, her family and friends established the Fennessy Research Fund. The Fund supports ongoing research efforts within the Division.

Asthma Program

Mount Sinai serves a community—East Harlem—with the highest rates of pediatric and adult asthma in the nation. Mount Sinai faculty members are striving—through patient care, community outreach, and research programs—to reduce these rates.

Mount Sinai is part of the Asthma Clinical Research Center (ACRC), a nationwide network involving 19 centers committed to asthma research. Gwen Skloot, MD, Assistant Professor of Medicine, leads the investigative team at Mount Sinai.

The first study under the auspices of the ACRC evaluated safety of the inactivated influenza vaccine in adults and children with asthma. Results were published in the *New England Journal of Medicine*¹ and demonstrated that inactivated influenza vaccine is safe to administer to adults and children with even severe asthma. The study group also recommended that all patients with asthma should receive the influenza vaccine annually.

In 2004 Mount Sinai was among seven Asthma Centers nationwide that participated in a study of inner-city asthma that was cosponsored by the NIH. The results were also published in *The New England Journal of Medicine*² and showed that, among inner-city children with asthma, individualized, home-based, environmental intervention decreases exposure to indoor allergens and results in reduced asthma-associated morbidity.

E. Neil Schachter, MD, Professor of Medicine, a specialist in environmental and occupational airway disease, is the author of a number of consumer-health publications. His most recent patient-education books include *Life and Breath: The Breakthrough Guide to the Latest Strategies for Fighting Asthma and Other Respiratory Problems—At Any Age* (Broadway Books, New York: 2004), and *The Good Doctor's Guide to Colds and Flu* (Harper-Torch: 2006; English and Spanish versions).

Ever since the September 11 terrorist attacks, emphasis has been placed on the treatment of asthma in individuals who worked or volunteered at Ground Zero and other sites. This work has been performed in collaboration with the Mount Sinai World Trade Center Worker and Volunteer Medical Screening Program.

Interventional Bronchoscopy

Probably one of the more exciting new developments in patient care is the Interventional Bronchoscopy Service at The Mount Sinai Medical Center. In 2006 Mount Sinai opened a new endoscopy suite that includes state-of-the-art bronchoscopy facilities. Both routine and advanced procedures are provided to inpatients and outpatients in a suite that offers both the most advanced technology and a patient-friendly environment.

Timothy J. Harkin MD, Associate Professor of Medicine, joined the Division in 2006 and currently runs the Interventional Bronchoscopy Program. He was recently appointed Clinical Director for the Division. Dr. Harkin is the primary investigator of two multi-center studies of new bronchoscopic treatments, one for emphysema and the other focused on CT-scan guided ultrathin bronchoscopy.

Sleep Medicine

Because research demonstrates a significant link between sleep disorders and numerous health conditions including cardiovascular disease, hypertension, diabetes, and obesity, sleep medicine has grown considerably as a specialty.

In 2005 Mount Sinai opened a new, expanded Center for Sleep Medicine and R. Nisha Aurora, MD, Assistant Professor of Medicine, was appointed director in October of 2006. The newly expanded Sleep Center has the capacity to conduct six simultaneous sleep studies per night and offers the most advanced diagnostic and treatment options available.

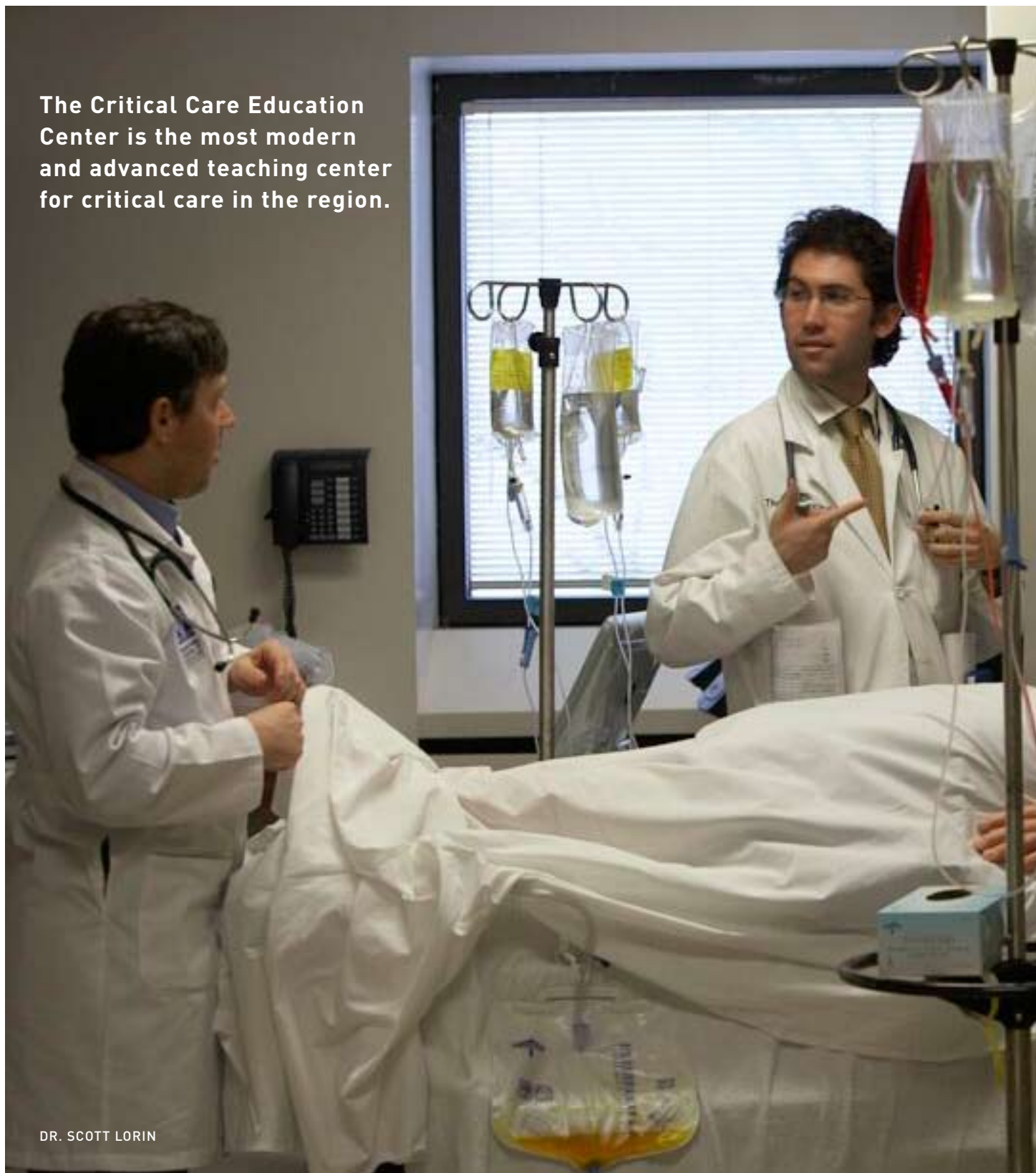
¹N Engl J Med. 2001;345:1529-36.

²N Engl J Med. 2004 Sep 9;351(11):1068-80.

DR. MARIA PADILLA joined the Division in 2004 as Director of the Pulmonary Fibrosis and Interstitial Lung Disease Center and Co-Director of the Lung Transplantation Program.



The Critical Care Education Center is the most modern and advanced teaching center for critical care in the region.



DR. SCOTT LORIN



Critical Care

The Division staffs a fourteen-bed technologically sophisticated Medical Intensive Care Unit (MICU), with a nursing ratio 1:2 or 1:1, as well as a Respiratory Care Unit (RCU).

In recent years, research conducted by Judith Nelson, MD, Associate Professor of Medicine, and others at Mount Sinai has confirmed the value of introducing palliative care into the MICU/RCU setting. For her work, Dr. Nelson was named the 2002 recipient of the Roger C. Bone Award for Advances in End-of-Life Care, given by the CHEST Foundation of the American College of Chest Physicians. She also received a career development award from the American Lung Association to study decision-making by patients.

Education and Training

Under the directorship of Scott Lorin, MD, Assistant Professor of Medicine and Program Director of the Pulmonary and Critical Care Medicine Fellowship, fellows receive comprehensive education and training in pulmonary and critical care medicine.

After joining the faculty in 2002, Dr. Lorin developed the Critical Care Education Center, the most modern and advanced teaching center for critical care in the region. The Center includes the Human Patient Simulator, a sophisticated, life-sized computer-driven mannequin that can be programmed to simulate a variety of scenarios involving acutely ill patients under emergent conditions.

Dr. Lorin also worked with experts at Mount Sinai's Morchand Center for Clinical Competence to develop a program for medical students and house staff to improve their communications skills with families of critically ill patients. The Morchand Center was one of the first centers in the nation to use specially trained actors as standardized patients to help doctors-in-training develop and refine communications skills. Dr. Lorin and his colleagues have published several papers on this new program.

Another recent innovation created within the Fellowship Program is the Transplant Service Rotation. This provides fellows with exposure to the management of patients with complex medical problems related to immunosuppression.

Graduates of the Division's fellowship program have become faculty members and division chiefs in pulmonary and critical care medicine throughout the United States, and in parts of Europe, the Middle East, and Asia.