

Division Chief Scott Friedman, MD, Irene and Dr. Arthur Fishberg Professor, was asked recently to recall some of the more significant events that have taken place within the Division over the past year.

Division of Liver Diseases

“Certainly one of the most gratifying,” notes Dr. Friedman, “is the pivotal role Mount Sinai played in the clinical trials of sorafenib (Nexavar), the first oral medication ever introduced to treat unresectable liver cancer.”

Liver cancer usually remains asymptomatic until it becomes advanced. It's estimated that 40 percent of all liver cancer in the US is diagnosed at an advanced stage. Before the sorafenib trial, treatment options were limited.

Mount Sinai was the largest US recruitment site for clinical trials of the medication. When the drug proved effective during the trials, the FDA terminated studies and approved the drug, making sorafenib the first effective oral systemic medication for treating patients with advanced liver cancer.

The lead clinical investigator at Mount Sinai, Josep Llovet, MD, Associate Professor and Director of the Division's Hepatocellular Carcinoma (HCC) Research Program, was also the lead international investigator for the sorafenib trials.

“Through his work on sorafenib and on HCC research generally, Dr. Llovet has become one of the world's leading investigators in the field,” remarks Dr. Friedman of his colleague. “The attention paid to the sorafenib outcomes by scientists, physicians, patients, and the media brought international attention to the Division.”

Such high visibility, remarks Dr. Friedman, is critical to his long-term goals of faculty and fellow recruitment and fundraising to enhance existing research, clinical care and education programs, as well as to start new ones.



The following select achievements of the past year highlight the many ways in which faculty and fellows in the Division of Liver Diseases are drawing national and international attention to the Division and to Mount Sinai.

- Dr. Friedman was elected to the Presidency of the American Association for the Study of Liver Disease, the largest association in the world devoted to liver disease. His term begins in 2009. He also became a Fellow of the American Gastroenterological Association.
- The Division embarked upon a strategic partnership with the world renowned liver diseases unit at King's College Hospital in London. Joint courses at each institution are planned for next year.
- Faculty and trainees within the Division gave an astonishing 33 presentations at the Annual Meeting of the American Association for the Study of Liver Diseases.
- There has been a steady decrease in length of stay of patients being treated for liver disease at Mount Sinai. At the same time, the overall number of liver transplants has increased, as has the excellence of outcomes despite the increasingly acute condition of organ recipients. Thomas Schiano, MD, Professor, and colleagues published clinical findings in the *Transplantation Proceedings* that are vital to improving the safety of all living donor transplants.
- Meena Bansal, MD, Assistant Professor, together with colleagues from the Division of Infectious Diseases, began jointly caring for patients with complicated liver disease and HIV-HCV coinfection in the Jack Martin Fund Clinic. This multidisciplinary model is expected to generate unique clinical trials focusing on this patient population.
- The Division formalized its academic relationship with the Association of Chinese American Physicians, a group of community medical providers who treat tens of thousands of Asian patients, many of whom have active liver disease. Through joint continuing medical education programs and other initiatives, the partners hope to facilitate Asian patients' access to advanced care and clinical trials.
- Kirsten Sadler-Edepli, PhD, Assistant Professor, and colleagues identified a single gene that governs both embryonic liver development and regeneration of the liver after partial hepatectomy. The results of their study were published in the *Proceedings of the National Academy of Sciences*. In addition, Dr. Sadler-Edepli received the Department of Defense Breast Cancer Research Award, a Basil O'Connor March of Dimes Fellowship, and the American Gastroenterology Association Research Scholar Award.
- Lawrence Liu, MD, Assistant Professor, in partnership with the Department of Genetics and Genomic Sciences, has begun treating patients with porphyria, a rare metabolic liver disease for which there are fewer than 10 experts in the country.

CLINICAL TRIAL NOTEBOOK From “Experimental” to “Lifesaving”

In 2007 faculty in the Division launched several clinical trials of promising new therapies for liver diseases.

Douglas Dieterich, MD, Professor, is the primary investigator for a trial of protease inhibitor therapy for patients with HCV infection.

Dr. Bansal is supervising a clinical trial of a novel antifibrotic therapy for patients with HCV fibrosis.

Joseph Odin, MD, Assistant Professor, is the primary investigator for a trial of a novel immunosuppressive agent for patients with autoimmune hepatitis.

Even before the clinical trial stage, Division investigators keep their focus on what is needed to apply their discoveries to the benefit of patients. “Protecting intellectual property with patents is essential to this process,” points out Dr. Friedman. “Without patents it would be very challenging to generate the support needed to bring new therapies to patients.”

Drs. Llovet, Friedman, and Myron Schwartz, MD, Professor of Surgery, filed a patent application describing a pattern of abnormal genes which, when detected in a liver lesion already suspicious for cancer, makes this diagnosis highly likely.

Another patent filing describes a specific DNA sequence present within some individuals' KLF6 gene that may predispose them to a higher risk of some cancers—especially prostate cancer. This was filed by inventors John A. Martignetti, MD, PhD, Associate Professor of Genetics and Genomic Sciences, Goutham Narla, MD, PhD Instructor, and Dr. Friedman.