

George Atweh, MD, Lillian and Henry M. Stratton Professor of Medicine and Chief of the Division of Hematology and Medical Oncology, pauses a moment to answer an inquiry about where he sees the Division headed within five years' time.

Division of Hematology & Medical Oncology

"I'd like to see us develop new programs of excellence in breast, prostate, lung and liver cancer. I would like these new programs to match in their breadth and quality the programs of excellence that are currently in existence, including myeloproliferative disorders, myelodysplastic syndromes, bone marrow transplantation, hemophilia and sickle cell disease."

When asked how he expects to match these preeminent programs within just a few years, he smiles. "We have a superb reputation at Mount Sinai for recruiting outstanding faculty who come to Mount Sinai with successful academic and clinical programs. In the past year alone, we have attracted leaders from the New York University Cancer Center, the University of Illinois Cancer Center, Columbia University, and other top centers around the country to lead new initiatives. We're working now with Steven Burakoff, MD—the newly recruited director of the Cancer Institute (see "Bench to Bedside," p. 75)—to recruit faculty with the expertise and track records to develop new programs and carry them to great new heights."

The Division of Hematology and Medical Oncology has experienced substantial growth as represented by the addition of new faculty members, several major government awards, academic promotions, cutting-edge research, publications in high-impact national and international journals, groundbreaking new program development, and forward-looking educational initiatives.

- Ronald Hoffman, MD, Professor, was recruited to launch a program in myeloproliferative disorders (MPD), a group of slow-growing blood cancers. In one of the few programs of its kind, Dr. Hoffman's team provides comprehensive services for MPD patients and conducts translational research to develop the next generation of treatments. Dr. Hoffman brought with him to Mount Sinai a program project grant from the National Cancer Institute that includes five basic research projects and provides support for several multi-center clinical trials in MPD. Anna Rita Migliaccio, MD, Professor, and Mingjiang Xu, MD, Assistant Professor, both of whom also recently joined the Division as new faculty, are working closely with Dr. Hoffman in the MPD Program.



- George Raptis, MD, Associate Professor of Medicine, returned to Mount Sinai, where he had spent the majority of his career, to serve as the founding director of the new Eva and Glenn Dubin Breast Care Center. The goal of the Center, according to Dr. Raptis, "is to bring together the best minds in breast radiology, medical oncology, surgery, radiation oncology, pathology, clinical genetics, psychosocial support and clinical translational research under one roof, to provide patients with seamless care and access to research studies." Looking to future leadership in this area, Dr. Raptis instituted a weekly breast cancer forum for faculty and fellows from several different departments.
- Paul S. Frenette, MD, Professor, and his colleagues, published a pivotal study in the journal *Nature* that demonstrated, for the first time, that hematopoietic stem cells are released into the circulation by circadian oscillations. This has decisive implications for the harvesting of stem cells for hematopoietic stem cell transplantation.
- Doris Germain, PhD, Assistant Professor, and coworkers tackled resistance to cancer drug tamoxifen in treatment of estrogen receptor-positive breast cancers in an article that appeared in *Cancer Research*. Dr. Germain's team presented evidence that the level of cyclin D1 expression and activated STAT3 are important markers that help predict response to tamoxifen treatment.
- To enhance enrollment of patients in clinical trials and to expand clinical research education for fellows and junior faculty, a weekly conference was initiated by Janice Gabrilove, MD, Professor, on clinical protocol design.
- All 2007 graduating fellows went on to faculty positions at leading academic centers including Mount Sinai, Memorial Sloan-Kettering Cancer Center, and Duke University.
- Andreas S. Beutler, MD, Assistant Professor, and his colleagues generated a great deal of interest in the international medical community and the media with their discovery of a gene-based approach to cancer-pain management that circumvents the use of opioids by targeting neurons located in the central nervous system. The study was published in the *Proceedings of the National Academy of Sciences*. He also recently received funding from the NIH to study the epigenetic changes in the brain associated with chronic pain.

"BENCH TO BEDSIDE" Cancer Care Comes to Mount Sinai in a Big Way

For cancer patients, creation of the Mount Sinai Cancer Institute heralds a new era of translational medicine.

Directing the Cancer Institute is Dr. Burakoff, one of the nation's leading oncologists. Dr. Burakoff was recruited to spearhead development of the state-of-the-art, patient-oriented, comprehensive cancer care facility. At the same time, as a renowned scientist, he is also overseeing expansion of Mount Sinai's bench-to-bedside cancer medicine program through which advances in cancer research will be applied to the development of novel cancer therapeutics.

Building on Mount Sinai's long history of converting laboratory discoveries into new patient treatments, a key component of the Cancer Institute is a clinical trials program implementing new laboratory discoveries developed by the faculty.

Beginning the translational medicine initiative with the most common cancers—breast, lung, prostate, and liver—the program will expand to include other forms of cancer, and will address the cellular and molecular biology of cancer metastasis, as well as novel strategies for treatment.

For seven years before joining Mount Sinai, Dr. Burakoff served as the Director of the New York University Cancer Institute. He has

published over 350 clinical papers, many with an emphasis on cellular and molecular immunology in cancer. For the past 25 years, he has been among the most frequently cited scientists in his field.

According to Dr. Burakoff, the days of the lone researcher working in an isolated laboratory are a cliché. With translational medicine at the heart of the Institute's mission, isolation now "translates" into teamwork and dialogue among clinicians and research scientists for the ultimate benefit of the patient.