

Biographies | Endowed Professors

Samuel Waxman, MD

Albert A. and Vera G. List Professor of Medicine

Samuel Waxman is a physician-scientist internationally known for his work on megaloblastic anemias, cancer chemotherapy pharmacology and differentiation therapy of leukemia, a field he helped invent. Devoted to bringing patients the best possible treatments along with caring human interaction, he was named in 1998 a founding member of New York magazine's Hall of Fame of New York Physicians—one of the few doctors in the nation to have combined a busy clinical practice with an unwavering commitment to biomedical research, as well as an exceptionally active roll in medical education.

The central theme in Dr. Waxman's research has been the metabolism of folic acid in both normal and malignant cells. He was a pioneer not only in this field of inquiry, but also in developing the tools required to pursue it. Some of the earliest applications of radioimmunoassay techniques for the investigation of both biological fluids and cells were in his laboratory.

In 1975, a cancer research foundation, based at Mount Sinai, was established in Dr. Waxman's name. As Scientific Director, he has focused on the Foundation on developing collaborative international research to identify specific defects in malignant cell differentiation and cell death with the purpose of developing selective therapies. More than \$35 million has been raised to support research projects in the United States, Europe and China, yielding an 'Institute Without Walls' consisting of 25 laboratories that share resources. It is anticipated that the number of laboratory sites will increase to 50 within the next 5 years.

For more than 20 years, Dr. Waxman has collaborated with the Shanghai Second Medical University, where he is Honorary Professor, Co-Director of the Joint Center for Cancer Differentiation Therapy, and recipient of the Magnolia Award from the Municipality of Shanghai. With his Chinese colleagues, he demonstrated the first successful targeted differentiation therapy of acute promyelocytic leukemia (APL) with all-trans-retinoic acid, which increased five-year survival from 25% to 85%.

Dr. Waxman continues to explore combination differentiation therapy, bringing forward the possibility that one day APL may be cured by targeted therapies without the need for cytotoxic chemotherapy. He is also studying the application of differentiation inductions to overcome transcriptional repressions in other forms of leukemia.

At Mount Sinai, Dr. Waxman has served as a senior attending for many years in Internal Medicine and Hematology, organized and directed course on physical diagnosis, and developed an intensive educational program to upgrade the skills of American students transferring from foreign medical schools.

Dr. Waxman earned his M.D. summa cum laude from Downstate Medical Center of the State University of New York and completed all of his clinical training, including fellowships in Hematology at Mount Sinai.