

## **Samuel Waxman Cancer Research Foundation Institute Without Walls**

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### *Samuel Waxman Cancer Research Foundation Announces Leukemia Treatment Advance*

NEW YORK, February 18, 2009 – The Samuel Waxman Cancer Research Foundation announces a major advance in curing a particularly lethal form of leukemia. A study being published today in the Proceedings of the National Academy of Sciences, reports a 95% cure rate after 5 years for acute promyelocytic leukemia (APL) using an innovative treatment followed by conventional chemotherapy. When patients were treated with chemotherapy alone, the cure rate was approximately 25-30%. The innovative treatment was developed through a collaboration beginning in the 80s between the Shanghai Institute of Hematology under the supervision of Dr. Zhu Chen, now China's Minister of Health, and the Mount Sinai laboratory of Dr. Samuel Waxman, Scientific Director of the Samuel Waxman Cancer Research Foundation.

The new treatment combined a Vitamin A derivative and a form of arsenic in order to reprogram cancer cells to behave like normal cells. The normal process of cell growth, maturation and death is called "differentiation". Restoring that normal pattern to cancer cells is called "differentiation therapy". Their early research on APL was among the first to demonstrate that it was possible to reprogram the behavior of cancer cells and was instrumental in establishing the exciting high-potential cancer-fighting strategy of differentiation therapy.

Arsenic and Vitamin A derivatives are both approved by the FDA and are currently in use in the United States to treat APL but had not been used together at the beginning of treatment. The advance in cure rate reported in this paper will become the standard treatment of APL in the United States and around the world. Because the drugs are cheap and may be obtained in pill form, this treatment is expected to have an impact in lesser developed countries as well.

*The Samuel Waxman Cancer Research Foundation supports research that focuses on this promising strategy for developing cures for many types of cancer. It even offers hope for preventing cancer from developing. Rather than kill cancer cells through the traditional treatments of chemotherapy and radiation, Foundation-supported research aims to reprogram chaotically growing cancer cells to behave normally. This targeted treatment has minimal side effects on patients and enables them to maintain their normal life during treatment. Cancer may one day become a chronic disease, loosely comparable to diabetes, where drugs will enable the patient to live a normal lifespan with a near normal quality of life.*