



# Watching Cancer Cells Disappear During Therapy

## The National Cancer Institute Funds Breakthrough Nano-Electromagnetic Cancer-Sensing Technology Developed By The Senior Scientific Branch Of Manhattan Scientifics

October 13, 2011

ALBUQUERQUE, N.M.--Manhattan Scientifics (OTCBB: MHTX) announced today that the National Cancer Institute (NCI) has funded a grant for its Senior Scientific, LLC unit, for the use of its proprietary, highly precise magnetic cancer cell measurement in leukemia research for determining the progress of cancer treatment.

Senior Scientific, LLC, founded by Edward R. Flynn, Ph.D., and currently funded by its public parent company, Manhattan Scientifics, is preparing to commercialize its nano-electromagnetic sensing technology, in collaboration with several leading cancer research hospitals in the U.S.

Senior Scientific's new monitoring therapy, which is applicable for both leukemia and solid tumors including breast cancer, can essentially watch cancer cells disappear during therapy and provide accurate guidance to physicians on how well therapy is progressing. This is important when determining the right amount of chemotherapy and avoiding overuse of chemotherapy in ways that would be harmful to patients.

Senior Scientific's nanotechnology uses a magnetic needle and targeted magnetic nanoparticles that improve determination of Minimum Residual Disease (MRD) by orders-of-magnitude. For physicians, detecting the presence of MRD provides information on how well chemotherapy is working and when it might be appropriate to stop treatment or change doses or drugs, or to restart treatment in the case of recurrence. More refined monitoring of chemotherapy is particularly important in pediatric leukemia, Flynn says, because the treatments can have significant short- and long-term adverse effects on patients.

Flynn says the technology can detect "MRD down to 0.3% of a sample. Achieving that level of sensitivity is the primary endpoint of the study, which is being conducted at the University of New Mexico's Health Sciences Center. Comparatively, current biopsy techniques typically fail to detect leukemia cells that account for less than 5% of a sample."

The grant funding by the NCI was associated with Senior Scientific's participation in the recent U.S. Department of Commerce partnership with the National Institutes of Health, the National Science Foundation and Technology Ventures Corporation (TVC) of Albuquerque.

In addition to the pre-clinical research program in measurement of MRD in leukemia, Senior Scientific has developed new approaches in early detection of breast and ovarian cancer using nanotechnology and ultra-sensitive magnetic sensors. This was funded by four Phase II SBIR grants. Results of this study have produced a technology that is orders-of-magnitude more sensitive than existing mammography without producing false positives. Other applications could include prostate cancer and immune system monitoring.



### **About Manhattan Scientifics**

Manhattan Scientifics Inc. ([www.mhtx.com](http://www.mhtx.com)) is located in New Mexico, New York and Montreal. It is focused on technology transfer and commercialization of disruptive technologies in the nano medicine space. The company is presently developing commercial medical prosthetics applications for its ultra-fine grain metals and plans to commercialize the cancer research work and nano medical applications developed by Senior Scientific LLC, a unit of the Company.

### **Forward-looking statement**

This press release contains forward-looking statements. Such forward-looking statements are subject to a number of risks, assumptions and uncertainties that could cause the Company's actual results to differ materially from those projected in such forward-looking statements. Forward-looking statements speak only as of the date made and are not guarantees of future performance. We undertake no obligation to publicly update or revise any forward-looking statements.

### **Contacts**

#### **Manhattan Scientifics, Inc.**

Marvin Maslow, 917-923-3300

Email: [marvin@mhtx.com](mailto:marvin@mhtx.com)

#### **U.S. & Canada Investor Relations:**

Hawk Associates Frank Hawkins, 305-451-1888

Email: [f.hawkins@hawkassociates.com](mailto:f.hawkins@hawkassociates.com)

---