

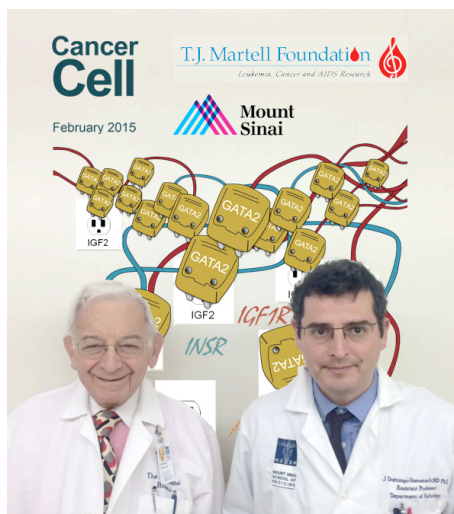


BREAKING NEWS

The T.J. Martell Foundation Announces Discovery of Gene Identified as a “Master Regulator” that Will Have a Major Impact on the Development of Treatments for Prostate Cancer

Celebrating its 40th Anniversary, the T.J. Martell Foundation Has Provided over \$270 Million To Cancer Research in the Fight Against Leukemia, Cancer and AIDS.

New York, New York – (March 3, 2015) – The T.J. Martell Foundation for Leukemia, Cancer and AIDS research celebrating its 40th anniversary this year has made a ground breaking announcement regarding



the development of treatments for prostate cancer. The Foundation has supported scientists in identifying a “master regulator” gene driving aggressiveness in prostate cancer. This discovery could have a major impact on the development of treatments of prostate cancer. The gene that acts as a switch and activates the aggressiveness of tumor cells is part of this important discovery and potential ultimate cure for prostate cancer.

Scientists at Mount Sinai Hospital in New York have made the discovery with the continued support of the T.J. Martell Foundation which has funded over \$270 million in medical research for a cure for Leukemia, cancer and AIDS.

Prostate cancer is the most common tumor and one of the leading causes of cancer death in men. In about 10-15% of patients, prostate cancer has an aggressive disease course characterized by the appearance of tumors in distant organs (metastasis) and the acquisition of resistance to anticancer drugs, which contributes to the death of the patients with prostate cancer in whom it is fatal.

The groundbreaking study which was led by Dr. Josep Domingo-Domenech and supported by the T.J. Martell Foundation, describes a mechanism by which prostate cancer cells become aggressive and

survive standard treatment. The key is a gene called GATA2, which encodes a transcription factor capable of reprogramming and activating aggressive cells through activation of multiple signaling pathways.

Using computational biology techniques that integrate genetic information from prostate cancer cells in humans and experimental models, it has been possible to identify the master regulator gene GATA2. It was observed that experimental prostate cancer tumor cells with high levels of GATA2 initiated aggressive tumors that were resistant to chemotherapy. The GATA2 gene acts as a master gene, controlling the activation and expression of many other genes. It activates other genes in cells, putting them to work invading healthy tissue and initiating metastasis. Other genes are set to activate survival pathways that help initiate tumors and make cells resistant to anticancer drugs. This is the case for the gene coding the growth factor IGF2, which is activated directly by GATA2 triggering a signaling cascade that increases tumor cell survival under adverse conditions.

Importantly the discovery of the master gene, GATA2, that regulates expression of IGF2 led to the identification of a new therapeutic strategy for patients with prostate cancer. The new treatment strategy combines chemotherapy with IGF2 pathway inhibitors which improves the results of chemotherapy and allows more durable responses. Dr. Domingo- Domenech explains, ‘the combination of chemotherapy with IGF2 pathway inhibitors helps enhance the antitumor effect of chemotherapy and was well tolerated in animal models. Now we are looking forward to translate these studies into patients’

“This important finding is a clear example of the excellent science with important clinical implications for cancer patients that the T.J. Martell Foundation is currently funding” says Dr. James Holland. “The support that the T.J. Martell Foundation has given Dr. Domingo-Domenech during the last years has helped enormously to uncover new therapeutic targets against this devastating disease.”

The T.J. Martell Foundation, which celebrates its 40th Anniversary this year, is the music industry’s largest foundation that funds innovative medical research focused on finding cures for leukemia, cancer and AIDs. It was founded 40 years ago by music industry executive Tony Martell and his colleagues in loving memory of his son T.J. who died of leukemia. To date the Foundation has provided more than \$270 million dollars for research that supports top hospitals across the United States and annually awards the Young Investigator Award to further research for a cure. For more information on the T.J. Martell Foundation and this breakthrough discovery go to www.tjmartell.org

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