



## New York University School of Medicine Industrial Liaison/Technology Transfer

### **Hrgr: A Novel Target for the Diagnosis and Treatment of T-Cell Malignancies**

#### **Principal Investigator**

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#### **Background**

Non-Hodgkins lymphomas (NHL) are a heterogeneous group of malignant neoplasms. There are two main forms of NHL: 1) an aggressive type that, in its early stages, can be cured with radiation and chemotherapy, but otherwise leads to a very short life expectancy and 2) an indolent form that results in a protracted course of repeated recurrences, having no established cure. The current methods of diagnosis provide poor characterization of these tumors, making classification and prognosis difficult. In addition, there is an urgent need to develop new therapeutics for the types of NHL that do not respond to current treatments.

#### **Description of the Project**

Dr. Pellicer has recently discovered a new oncogene, human rgr (hrgr), whose over expression or alteration has been found to occur in a subset of non-Hodgkin lymphomas. Using a RT-PCR assay developed in their laboratory, they have been able to detect the expression of an abnormally truncated transcript in several T-cell lymphoma lines, and in fresh tissue samples of patients with T-cell malignancies. Further, normal cells that were transfected with expression constructs containing truncated transcripts of hrgr demonstrated a transformed phenotype. The observation that this gene is present in truncated forms in T-cells and in some types of T-cell lymphomas, along with the transforming potential of the truncated transcript, strongly suggests that hrgr has a pathogenic role in lymphoid neoplasms.

Appropriate design of blocking strategies, such as anti-sense or biochemical inhibitors of its function, should have a therapeutic benefit for those patients who do not respond to currently available treatments.

#### **Applications**

NYU is seeking an industrial partner to assist in the development of specific 1) genetic or immunological diagnostics, 2) genetic, biochemical or immunological therapeutics.

#### **Patent Status**

A US patent application has been filed covering nucleic acid molecules encoding hrgr and naturally-occurring variants thereof, along with related proteins and antibodies.

#### **For further information please contact**

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