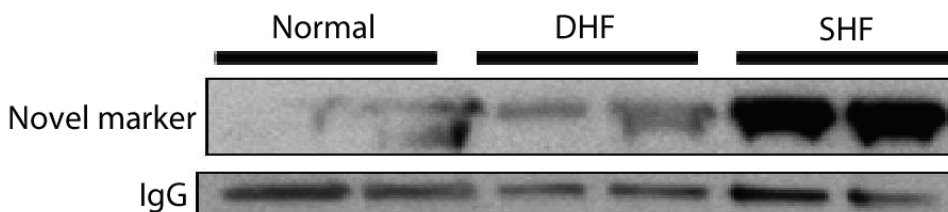




Peripheral Blood Marker that Distinguishes Systolic and Diastolic Heart Failure

Overview of Technology:

Cardiovascular diseases are the most important cause of morbidity and mortality in developed countries, causing twice as many deaths as cancer. Among these diseases, heart failure affects approximately 4.8 million persons in the United States, with about 500,000 new cases diagnosed each year. Mortality rates for heart failure remain high: 30 to 40 percent of patients with advanced disease and five to 10 percent of patients with mild symptoms die within five to 10 years. Therefore, management of the underlying causes of heart failure will significantly reduce the risk of mortality for these patients. Heart failure is due to either of two types of heart defects. Systolic heart failure (SHF) is heart failure due to a defect in the expulsion of blood from the heart while diastolic heart failure (DHF) caused by a stiffening of the heart that results in inadequate filling of the blood into the heart. The management of DHF and SHF differs, therefore, it is important to distinguish the two different types of heart failure. Current diagnostic tools and criteria using symptoms, physical examination, chest radiography or electrocardiography are imprecise in differentiating the two types of heart failure. There is an unmet market need to develop accurate diagnostics for SHF and DHF in order to assist physicians in managing heart failure and decrease the risk of inaccurate diagnosis and subsequent inadequate treatment.



Expression of novel UHN marker in peripheral blood samples of normal, DHF patients and SHF patients

Dr. Peter Liu, a leading cardiologist and scientist at the Toronto General Hospital has discovered a peripheral blood biomarker that can be used to distinguish systolic and diastolic heart failure. Clinically validated patient samples tested have shown significant differences in the expression of this marker.

Potential uses for these markers include the development of clinical laboratory assays for cardiovascular applications. A portfolio of cardiovascular-related biomarkers for different cardiovascular conditions are also available for partnering.

Patent:

US Provisional filed Sep 11, 2009 US61/241,648

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UHN Reference # - 9081