

Awarded Projects 2008-2009 Competition



Development of biomarkers for measurement of early stage diabetes disease and for prediction of response to therapy

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Progressive loss of pancreatic β -cells or their function results in Type 1 and Type 2 diabetes. There is an urgent need to develop biomarkers that accurately measure β -cell numbers and function, as well as biomarkers to predict patient response to specific classes of Type 2 diabetes treatments.

We propose to use the complementary expertise of three internationally recognized Montreal-based laboratories in a translational medicine approach to discover blood-borne protein biomarker panels in order to develop such tests. The project will use Caprion's proprietary CellCarta proteomics technologies to analyse secretory proteins of pancreatic beta-islet cells isolated from humans and animal models of diabetes, as well as blood plasma collected from human diabetes patient populations in order to discover and validate panels of protein biomarkers that are predictive of diabetes disease progression and of therapeutic response.

Such biomarkers would have a wide application in diabetes research by improving our understanding of disease progression, as well as in clinical care by improving the screening of susceptible patient populations and monitoring of treatment efficacy.

Co-investigators :

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