

THE INNODIA PATIENT GROUP EXTRA NEWS

The Patient Advisory Committee of INNODIA represents the voice to the experiences, opinions and desires of the patients to help ensure that INNODIA's goals and strategy are closely aligned with the goals of people living with, and affected by type 1 diabetes

JANUARY 2018

A NEW CIRCULATING BIOMARKER

IDENTIFICATION OF A CIRCULATING PLASMA "MicroRNA", A SMALL RNA MOLECULE CONFIRMED AS KEY BIOMARKER OF TYPE 1 DIABETES

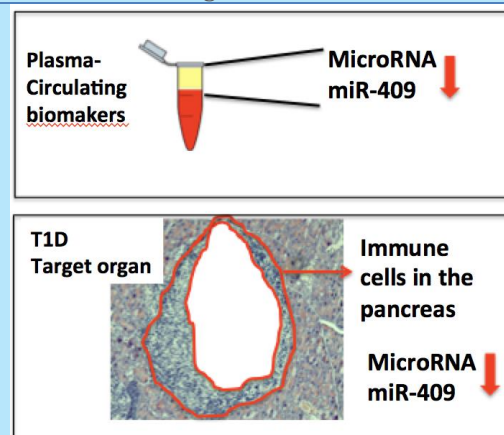
MicroRNAs are a class of small molecules which control beta-cell and/or immune cell function and are secreted by cells. They can be measured in serum or plasma thus representing optimal biomarkers of potential alterations of beta-cells and/or immune cells during type 1 diabetes.

Standardization of laboratory procedures for the measurement of circulating microRNAs are essential to reproducibly detect new microRNA biomarkers to diagnose and follow-up Type 1 diabetic patients.

Innodia basic research team has discovered that a specific MicroRNA, the **miR-409-3p** was a key piece of the puzzle.

This MicroRNA is reduced in plasma of a mouse model of Type 1 diabetes, is also reduced in immune cells attacking beta-cells in pancreas of diabetic mice and regulates inflammation in pancreas of autoimmune diabetic mice.

Figure 1- miR-409-3p is reduced in plasma and immune cells attacking beta-cells



The team standardized a novel procedure to reproducibly measure microRNAs in human plasma and adopting the INNODIA procedure to measure circulating microRNAs, miR-409-3p was found reduced in plasma obtained from patients with Type 1 diabetes as well. In conclusion the MicroRNA miR-409-3p is a new promising circulating biomarker for T1D diagnosis and follow-up.

INNODIA proposes an innovative approach to realize a decisive step towards type 1 diabetes prevention and cure. INNODIA develops European infrastructures, establish a tight collaborative network of basic and clinical researchers, advances the development and application of novel methodologies, establishes a unique integrated database and conceives innovative clinical trial designs.

INNODIA is putting together a consortium of the leading clinical and basic science researchers on type 1 diabetes in Europe

DO YOU WANT TO PARTICIPATE ?

Have you been diagnosed with type 1 diabetes in the last 6 weeks ?
OR Do you have a parent, child, sibling with type 1 diabetes ?

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