THE INNODIA PATIENT GROUP
EXTRA NEWS

The Patient Advisory Committe 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

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USEFUL SPECIFIC IMMUNE CELLS IN TYPE 1 DIABETES

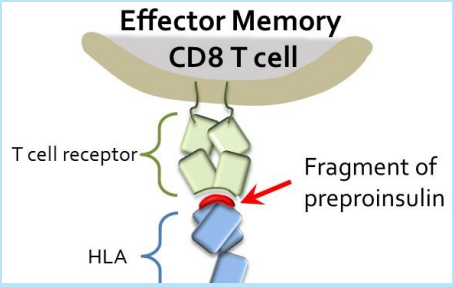
MEASURING IMMUNE CELLS AS A WAY TO PREDICT FUTURE CHANGES IN HOW WELL THE BODY MAKES INSULIN

There is a need to be able to conduct clinical trials in type 1 diabetes in a shorter time frame, with "smart" outcomes, often called "biomarkers".
An obvious candidate biomarker is an immune cell that is considered to be involved in damaging the beta cells that make insulin.

The Innodia team has measured this type of immune cell (*more precisely beta cell specific effector memory CD8 T cells)* in patients followed longitudinally, who at the same time had their capacity to make insulin measured.

The CD8 T cell is thought to be a key player in the immune attack on the beta cell. Several INNODIA investigators have been studying it (London, Paris) and have discovered the main molecular targets – which include the precursor molecule (preproinsulin) for the hormone insulin.
The teams devised new ways to measure these cells in the blood, and then tracked them in people who had recently developed type 1 diabetes. Some patients experienced a honeymoon (their ability to make insulin recovers a little) and many saw a progressive decline in the amount of insulin they could make.

How an immune cell – called a CD8 Effector-Memory – interacts with the β-cell, by "recognizing" a small fragment ("peptide") from preproinsulin on the cell surface.



This provided ideal conditions for the study.
The outcome was that some immune cells change in concert with the change in insulin manufacture.

The INNODIA investigators also made an in-depth study of the genes expressed by the immune cells, so that they can find even more precise ways tp track the.

These immune cells could be monitored in clinical trials in the future to see whether a particular therapy is having an effect, potentially providing an early indication of benefit.

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 ?

See the nearest clinical center on www.innodia.eu

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