Programme: Poduzetnički impuls 2013

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Project Duration: 12 months



Antenary Fucosylation of Plasma Proteins as a Biomarker for HNF1A-MODY

This project aimed to explore antenary fucosylation of plasma proteins as a potential biomarker for HNF1A-MODY (Maturity-Onset Diabetes of the Young, type HNF1A). HNF1A-MODY is a rare, monogenic form of diabetes caused by mutations in the HNF1A gene, leading to impaired insulin secretion. Early and accurate diagnosis is crucial, as individuals with this form of diabetes often respond well to sulfonylurea treatment, reducing their dependence on insulin therapy.

By investigating specific glycosylation changes, particularly antennary fucosylation, the project sought to develop a novel biomarker that could aid in the early detection and differentiation of HNF1A-MODY from other types of diabetes. The research focused on analyzing plasma protein glycosylation patterns in affected individuals to identify distinct glycan signatures associated with the condition.

The project was co-funded by the Ministry of Entrepreneurship and Crafts through the Entrepreneurial Impulse 2013 program, supporting innovative research with potential applications in personalized medicine and diagnostic advancements.