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Coordinator: Kobenhavns Universitet
Project participants: 2
Project website: https://glucotypes.eu/
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Genos contribution: 539,500.00€

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GLUCOTYPES

Protein glycosylation and glucose variability patterns for precision nutrition in diabetes

GLUCOTYPES-HopOn expands the GLUCOTYPES project by incorporating large-scale glycosylation profiling through the participation of the widening partner, Genos. Specializing in high-throughput glycomics, Genos has contributed glycomic data to over 200,000 samples from population, epidemiological, and clinical studies. With a focus on biomarker discovery and commercialization, Genos brings valuable expertise to the GLUCOTYPES Consortium. Previous research at Genos has shown that glycan biomarkers can predict the development of type 2 diabetes (T2D) independently of traditional risk factors, offering complementary insights. Genos demonstrated that individual differences in plasma protein Nglycome composition can predict T2D up to 10 years before onset with gradual changes in the N-glycome becoming evident years before clinical signs of insulin resistance or T2D appear.

By analyzing total serum/plasma N-glycans in 11,000 samples available through the GLUCOTYPES project using advanced technologies, Genos will actively support the project's goal of developing personalized dietary strategies to address food-related health conditions (FrHCs) and non-communicable chronic diseases (NCDs). The integration of Genos will follow the project's existing structure, with dedicated subtasks across several work packages, ensuring smooth incorporation of high-throughput glycomics analysis. The GLUCOTYPES-HopOn extension will enhance glycosylation profiling capacity, strengthen commercialization efforts, and boost the impact of the GLUCOTYPES Consortium, potentially opening new research avenues