

GlycanTrigger - Glycans as master triggers of health to intestinal inflammation transition

GlycanTrigger is a project funded by the European Union, within the **Horizon Europe Research and Innovation Actions**, that addresses how changes in the composition of glycans (sugar-chains) exposed at the surface of the gut mucosa (the gut glycome), act as a primary event that dysregulates local and systemic mechanisms leading to inflammation. The team is studying how those changes can start a chain reaction that leads to intestinal inflammation. GlycanTrigger is exploring the novel concept of “glycan mimicry”, i.e., the idea that some molecules can imitate or resemble the sugar code (the glycome) found in our body and trick our immune system, ultimately causing inflammation in the digestive system.

Inflammatory bowel diseases include two **idiopathic** and **incurable** diseases – **Crohn’s disease** and **ulcerative colitis** – characterized by an uncontrolled inflammation of the digestive tract. GlycanTrigger is testing an **innovative hypothesis** in which changes in the glycome composition in the gut lead to imbalances in bacteria composition (the microbiome) and in gut immunity which ultimately cause a shift from health to inflammation. The project aims at understanding whether this glycan-shift could be an early event that triggers inflammation in inflammatory bowel diseases. Additionally, it envisions a new strategy for predicting and preventing **inflammatory bowel diseases**.

GlycanTrigger will last 6 years and brings together **9 partners from 7 different EU and non-EU countries**. The project started in January 2023 and is **coordinated by i3S** - Instituto de Investigação e Inovação em Saúde, Portugal.

The official **kick-off meeting** of the GlycanTrigger project will be a **1.5-day event** held in **Porto** (Portugal) on **March 13th and 14th**. The aim of the meeting is to lay the foundations for the GlycanTrigger project, in order to get the project off the ground and officially get started on the proceedings for the implementation of the activities planned.

GlycanTrigger Partners:

- Instituto de Investigação e Inovação em Saúde (**i3S**), Portugal
- Leiden University Medical Center (**LUMC**), the Netherlands
- Sorbonne University, France
- Charité – Universitätsmedizin Berlin, Germany
- GLSMED Learning Health (**GLSMED LH**), Portugal
- Icahn School of Medicine at Mount Sinai, USA
- European Federation of Crohn’s & Ulcerative Colitis Associations (**EFCCA**), Belgium
- Sociedade Portuguesa de Inovação (**SPI**), Portugal
- Ludger Limited (**LUD**), United Kingdom



For more information, please contact:

Salomé Pinho, Project Coordinator
Instituto de Investigação e Inovação em Saúde (i3S), Portugal
E-mail: salomep@i3s.up.pt



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