

In vitro fecal fermentation of Broccolo di Torbole ecotype (*Brassica oleracea* var. botrytis): analysis of gut microbiota composition


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Introduction

 **Gut microbiota** (GM) is intrinsically connected to host health and inflammatory state (Fava *et al.*, 2018)

 **Brassica** vegetables feature a huge number of varieties and their **anti-inflammatory** properties are widely investigated (Favela-González *et al.*, 2020)

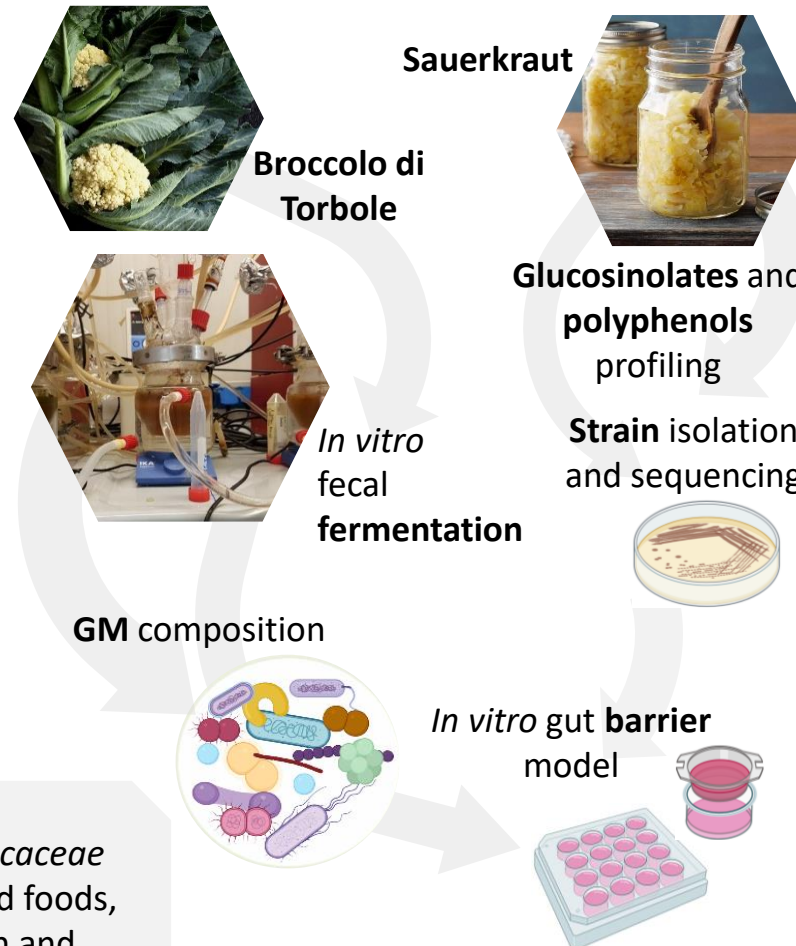
 GM biotransform plant phytochemicals into derivative **metabolites** with *in vivo* activity (Kawabata *et al.*, 2019)

 Gut microbial metabolites play a key role in the maintenance of **intestinal barrier** function (Mohammad & Thiemermann, 2021)

Objectives

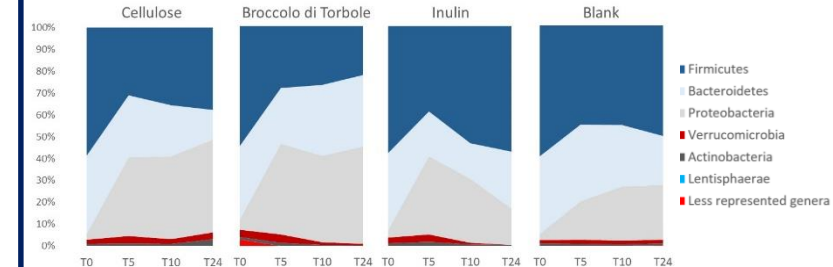
Assess the effect of microbial metabolism of *Brassicaceae* in the human gastrointestinal tract and in fermented foods, focusing on microbial metabolite characterization and reinforcement of mucosal barrier function

Methods

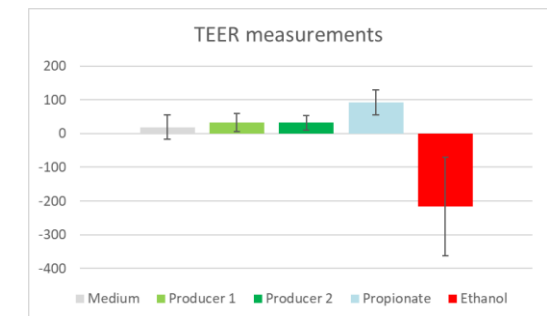


Preliminary results

1. Faecal fermentation of *B. oleracea* modulates gut microbial composition



2. Sauerkraut from 2 different producers positively modulates gut barrier integrity



Changes will be **related** to production of Brassica derived **microbial metabolites** in fermentation supernatants