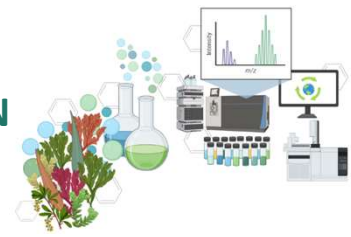


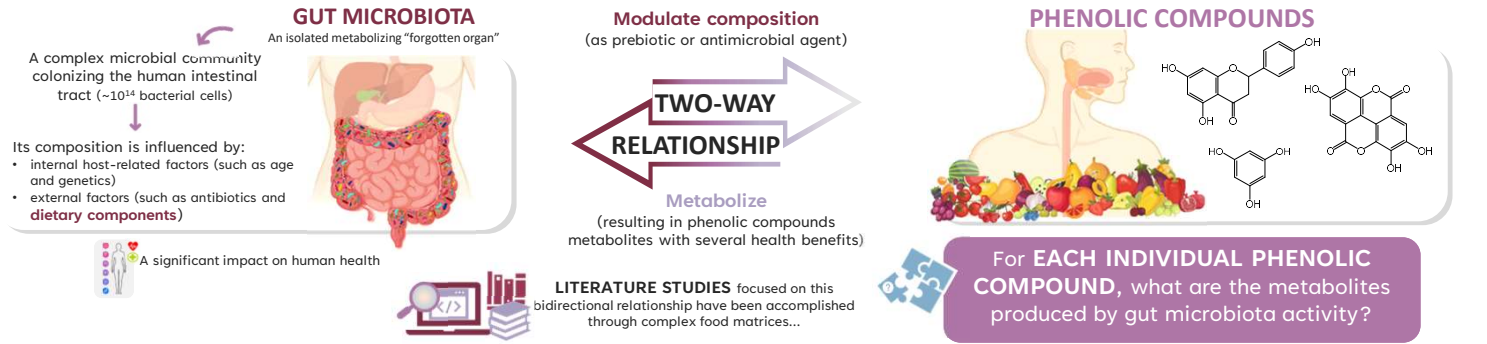
METABOLISM OF PHENOLIC COMPOUNDS BY HUMAN GUT MICROBIOTA: INSIGHTS FROM *IN VITRO* FECAL FERMENTATION

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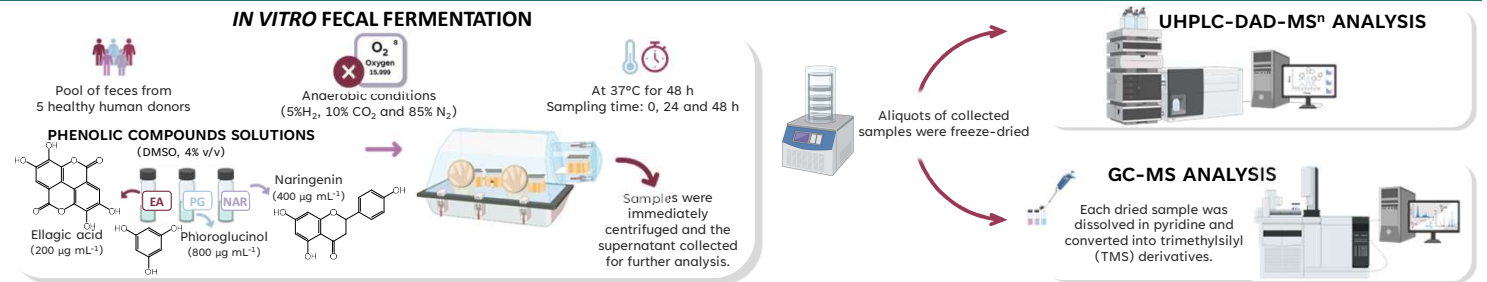
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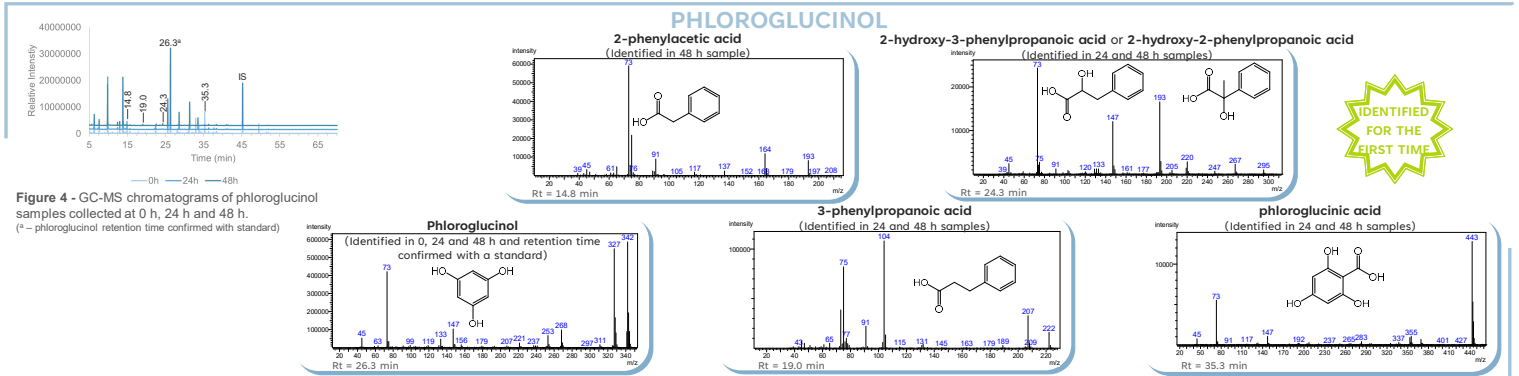
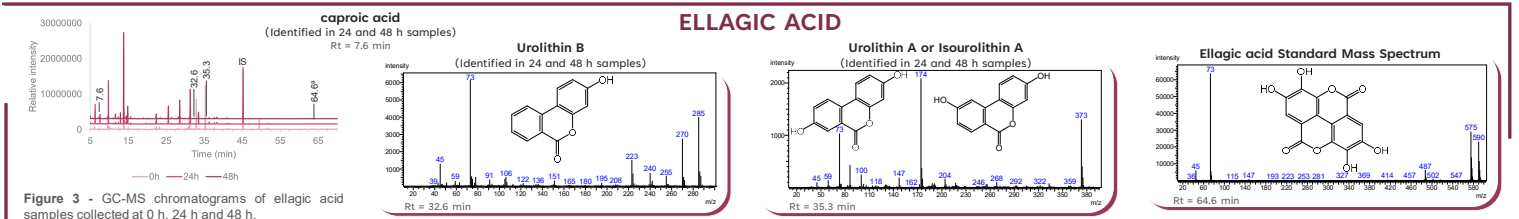
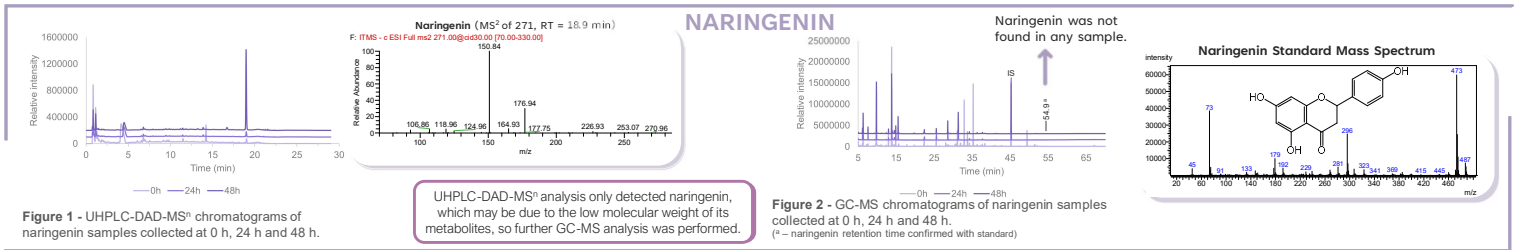
BACKGROUND AND AIM



METHODS



RESULTS



FINAL REMARKS

- UHPLC-DAD-MSⁿ allowed to detect all pristine phenolic compounds, but no metabolites have been detected.
- GC-MS was successfully used to detect and identify several low molecular weight metabolites.
- Three and four compounds were identified as gut microbiota metabolites of ellagic acid and phloroglucinol respectively. Urolithin B and (iso)urolithin A were putatively identified in 24h and 48h ellagic acid samples.
- 2-Phenylacetic acid (48 h), 3-phenylpropanoic acid, 2-hydroxy-2-phenylpropanoic acid or 2-hydroxy-3-phenylpropanoic acid and phloroglucinol acid (all in 24 and 48 h samples) were putatively identified for the first time as phloroglucinol metabolites.
- The absence of naringenin gut microbiota resultant could be due to early metabolism (before 24 h) of this compound or to being below the limit of detection, which hinders analysis/identification.

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