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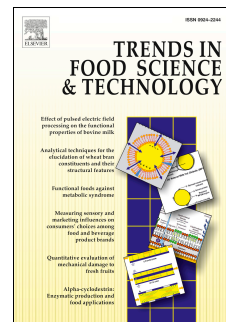
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Non-extractable polyphenols produce gut microbiota metabolites that persist in circulation and show anti-inflammatory and free radical-scavenging effects

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ABSTRACT

Recent studies demonstrate that fruits are rich in non-extractable polyphenols, macro-antioxidants, which have been underestimated. These are not absorbed and reach the colon where are catabolized by human gut microbiota releasing low molecular weight phenolics that are then absorbed efficiently. These metabolites persist in human plasma for extended times up to 3-4 days after the intake with significant concentrations. Preclinical studies with these metabolites at the concentrations that can be reached in plasma have reported anti-inflammatory and anti-oxidant effects that could be related to health benefits observed *in vivo* after the intake of the non-extractable macro-antioxidants.

Keywords: Macroantioxidants, gut microbiota metabolites, anti-inflammatory, antioxidant, proanthocyanidin, ellagitannin.

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