

Impact of cooking, 10th species on intestinal fermentation patterns of vegetables in a Humanized *in vitro* model of the gastro intestinal tract.

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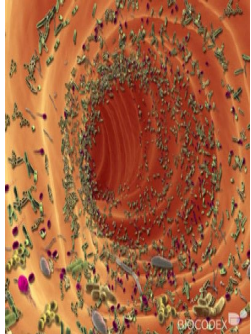
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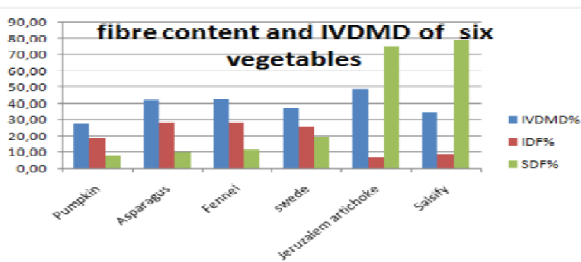
Background

Obesity and associated pathologies have dramatic consequences on patients' live as well as high societal costs. Prebiotics and dietary fibre (DF) supplements are being investigated to reshape the intestinal microbial communities of obese patients. The efficacy of vegetables depends of their contents in soluble (SDF) and insoluble dietary fibre (IDF) and fructans, the fermentability of the fibre and the short chain fatty acids production they induce. These are influenced by the nature of the vegetable and whether they are consumed steamed or raw.

Objective

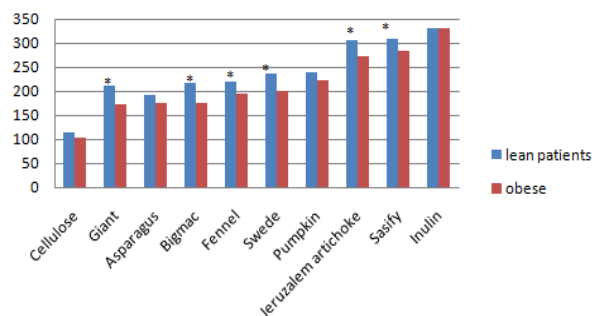
To compare the ability of gut microbiota of obese and lean patients (BMI > 30 and BMI < 25), to ferment DF and how different vegetables modulate fermentation patterns in a dual model combining enzymatic hydrolysis to an *in vitro* fermentation using faecal inoculums with six steamed vegetables.

Fibre content and *in vitro* digestibility of DM of some steamed vegetables

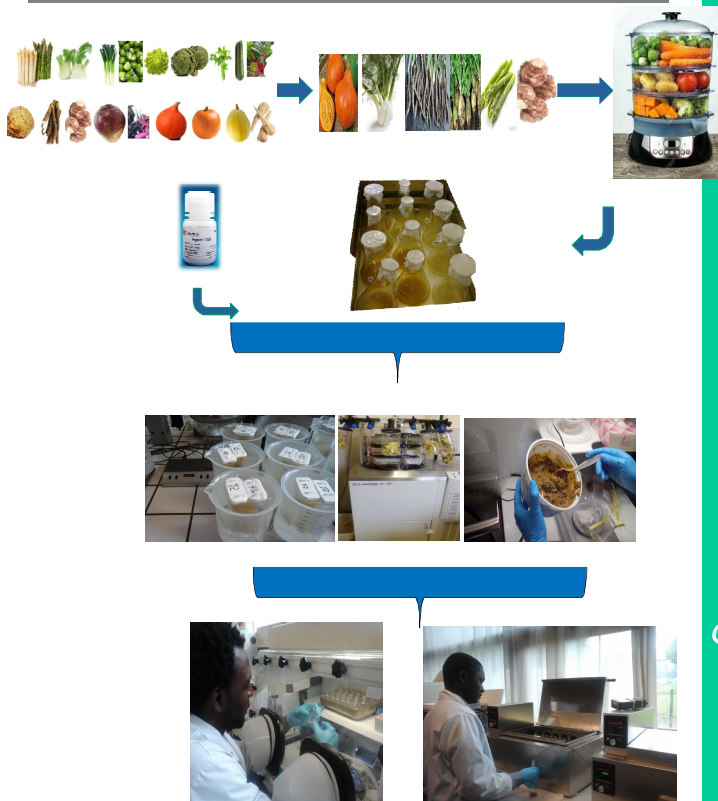


Fermentation Kinetics on some steamed vegetables

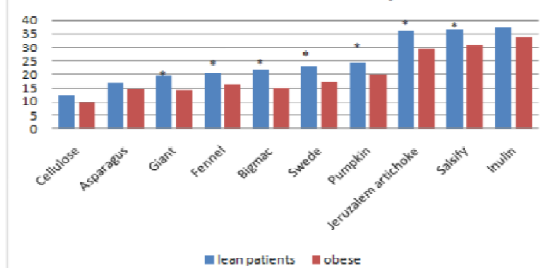
volume of gas produced



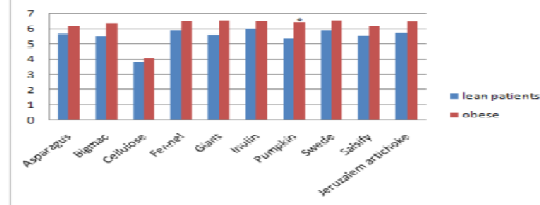
Methods



fermentation rate: ml/h



maximum time rate of fermentation



Conclusions

Fermentation kinetics depend of DF contents in vegetables being highest with SDF. There is a higher fermentability of vegetables DF in the presence of microbiota isolated from the feces of lean patients than their obese counterparts.

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