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## Efficacy of ready-to-eat probiotic artichokes in modulating faecal microbial parameters in healthy subjects and patients with functional constipation

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new line of probiotic products has been developed as an appealing option to the milk-based products to allow the daily consumption of probiotics. To evaluate the effects of ready-to-eat artichokes containing the probiotic strain Lactobacillus paracasei LMGP22043 on fecal microbial composition, biochemical parameters and symptom profile, clinical trials on healthy subjects and patients suffering from functional constipation were performed. Preliminary results provided evidences on the ability of the ready-to-eat probiotic food (daily dose of about 1x1010 CFU live probiotic cells) in modulating microbial parameters in constipated subjects. The administration for 15 days of the probiotic product to healthy volunteers demonstrated that the L. paracasei strain transiently colonized the gut of 17/20 subjects (median 6.87 log CFU/g feces), determined a general reduction in Enterobacteriaceae, antagonized Escherichia coli and Clostridium spp. and increased the genetic diversity of lactic population (Valerio et al., 2011). As concerns the patient group, 20 constipated patients were studied. Symptom profile was investigated using the Bristol stool form chart and the Gastrointestinal Symptom Rating Scale (GSRS) questionnaire. After 15-day administration of probiotic ready-to-eat artichokes, satisfactory relief of symptoms was recorded. Besides, Bristol chart cluster scores were significantly higher and GSRS constipation scores significantly lower at the end of administration compared to baseline. As for SCFAs production, a significant increase in propionic acid concentration was found. Present results suggest that the association of the probiotic L. paracasei with a food carrier rich in fibers such as artichokes, may represent a new strategy for favoring a daily supply of probiotics and attracting more consumers to vegetable food fortified with probiotic strains

## **Biography**

Paola Lavermicocca is a Biologist, Research Director and Leader of the Research Unit "Microbiology and quality of food productions". She is responsible for more than 20 scientific projects in the field of agro-food microbiology funded by European Commission/MIUR/Italian Regional Bodies/ Foundations/private funding bodies. Her research activities are focused on the microbiological aspects of food to improve their nutritional/functional quality and shelf life. She is an expert for European Commission, GSRT of Greece, Italian Ministry of Education, University and Research, Italian Ministry for Productive Activities and for Italian Regional Bodies. She is an author of about 140 publications (most ISI ranked) and has patent ownership on the application of bacterial strains in the field of functional foods.

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