TANNINS BIOACTIVITY

The origins of the Silvateam Group (www.silvateam.com) date back 160 years, when in 1854 Carlo Giuseppe Battaglia built his first factory based at Corsaglia di Frabosa, in the province of Cuneo, for the extraction of tannins from chestnut wood. During the 20th century, the company has developed and become a world leader in the production and commercialisation of vegetable extracts and their derivatives. In 2001, the holding group successfully entered the food ingredients market, first with the production of Tara gum, and later with pectin and tailor-made stabilizers blends.

Tannins are proven to have a positive effect on the metabolism!

Tannins produced by Silvateam are extracted from many vegetable raw materials, for example chestnut wood, quebracho wood, oak wood, tara pods, chinese gallnuts, turkish gallnuts, barks. Every raw material has the property to contain tannins with a specific chemical composition. Tannins have already been proven to determine, trough in vitro gastrointestinal digestion and fermentation, a positive effect on the metabolism, the production of short chain fatty acids, and the antioxidant capacity. Within **Stance4Health**, an in vitro digestion and fermentation with fecal samples will allow to select tannin extracts with differential activity on the gut microbiota.

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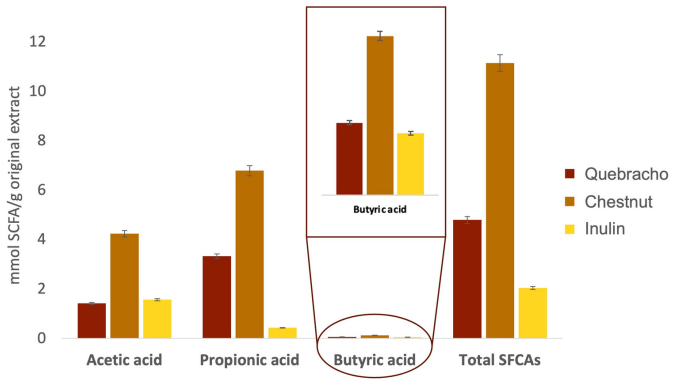

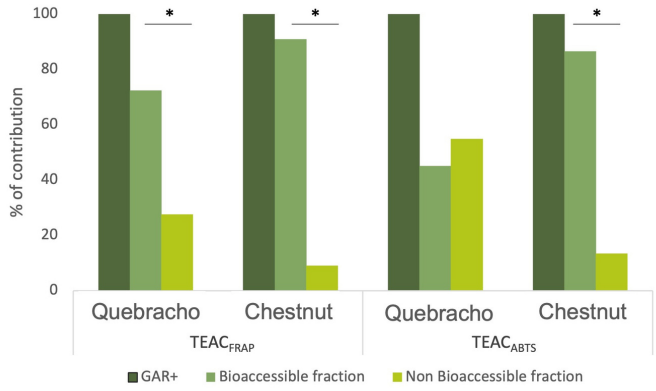

Design of customized foods for specific (vulnerable) target groups

The aim is to formulate **new functional foods and nutraceuticals** for specific vulnerable target groups (i.e. overweight, celiac disease and food allergy), in collaboration with the other companies involved in the project, in an effort to tackle Non-Communicable Diseases (NCDs) and **improve personalized nutrition**. Different cereal-derived foods will be designed, including different doses of new prebiotics like **tannins** or riboflavin, aiming for a personalized modulation of gut microbiota activity at the individual level. The products will be tested in a relevant environment for their acceptance by a sensory analysis panel and consumers. It will allow to define the maximum amount of tannins in different foods that are not detectable through tasting. The best identified products will be tested in a short human intervention to validate the in vitro effects. The gut microbiota activity will be assessed through very specific analyses.

Visit www.stance4health.com for more information about our project.

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