Objective

The overall objective of the project is to provide the necessary knowledge, tools and validated methods to enable development of high quality, consumer-acceptable fruits and vegetables (F&V) and derived foods / beverages containing flavonoids at levels that are optimal for human health. The study will mainly focus on proanthocyanidins (PAs) because, unlike other flavonoids, there is consistent evidence, from short-term clinical trials, supporting a role for PA in maintaining cardiovascular function and decreasing CVD risk. Such clinical studies have used PA-rich extracts including pine bark, grapeseed, cocoa and 'American' fruit juices (cranberry, blueberry, purple grape) that are sold in low volumes in Europe. The flavonoid / PA rich plants and products used in the project (i.e. grape, apple, strawberry, broccoli, and tomato, juices, wine and cider) are suitable candidates to develop European plant-based foods with improved flavonoid content and can have a broad impact on both citizen health and SMEs. This knowledge, combined with recent advances in our understanding of, and ability to specifically alter, plant flavonoid biosynthesis and food/beverage content, will be exploited to develop F&V with altered PA composition as health-promoting food products. The specific aims follow a "Fork to Farm" approach to: (1) Determine the optimal source and dose of PAs for conferring health benefits while avoiding potential risks (2) To develop analytical tools for selecting raw materials and transformation processes for modifying PA composition in order to ensure optimal quality of plant-derived foods and beverages (3) Provide biotechnological tools for producing F&V with an optimised PA composition, and (4) Study consumer attitudes towards the processes used and products derived from...
the application these novel technologies and inform all the stakeholders in the food chain of the scientifically substantiated benefits (risks) of PA-enriched foods.

Programme(s)

FP6-FOOD - Food Quality and Safety: Thematic priority 5 under the Focusing and Integrating Community Research programme 2002-2006.

Topic(s)

FOOD-2003-T6.5 - Flavonoids in fruit and vegetables: their impact on food quality, nutrition and health

Call for proposal

FP6-2003-FOOD-2-A

See other projects for this call

Funding Scheme

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