



Ji Yeon Kim, PhD

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Biography

Ji Yeon Kim is the Associate Professor of Seoul National University of Science and Technology. She is studying about health beneficial effect of food and food ingredients using cell line, animal and human intervention studies. Currently, her researches are focused on investigating the interactions of multi-components of food and culinary plants in the human body using multi-omics techniques. Besides, she is also studying systematic review for physiological effect of food components and health claim regulations. She was a research professor at Ewha Womans University from 2009-2012. At Ewha, she was studying action mechanisms of phytonutrients using cell, animal and human models. Before academia, she was a scientific staff in Korea Food and Drug Administration (KFDA). At KFDA, she introduced systematic review system in health claim evaluation and developed regulatory policies in Health Functional Food. In addition, she was a visiting scholar at the US FDA. In the US FDA, she learned about health claim evaluations and new dietary ingredients. She has published her research achievements in several international journals. Also, she has been editors on several SCI(E) journals including Food Science and Biotechnology, Applied Biological Chemistry and Journal of Microbiology and Biotechnology. She is a member of Korea Society of Food Science and Technology. She has been also a member of advisory committee of Health Functional Food in Ministry of Food and Drug Safety for several years. She received her Ph.D. in research on the anticancer activity and immunostimulating effect of lactic acid bacteria in the Department of Food Science and Technology, Seoul National University in Korea.

Abstract

Differential responses of garlic and/or tomato consumption on cardiometabolic biomarkers applied high fat/sucrose loading test to healthy male smokers

Garlic is a functional spice containing a large amount of sulfur compounds and flavonoids. It has been used extensively as a food material in Europe as well as in Korea. Garlic and tomatoes are foods that are consumed at the same time, especially in Europe. In animal models of gastric cancer, combined treatment of S-allylcysteine and lycopene has an additive or synergistic effect on antioxidant production. Thus, garlic and tomato extracts could have similar functionalities or show further synergistic effects, even though they have different chemical composition. Therefore, in this study, garlic powder, tomato extract and the mixture were prepared and compared for their anti-thrombotic effects using a rodent model and human. In animal, garlic powder, tomato extract and a mixture of both were analyzed for anti-thrombotic effects using a collagen and epinephrine induced thrombosis model. For human, the effect of garlic and/or tomato on endothelial dysfunction induced by the PhenFlex test (PFT) in healthy male smokers was confirmed.