

Nutrigenomics – a new approach for cancer prevention and treatment

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ABSTRACT

Diet is a major environmental factor which maintains metabolic balance and body homeostasis. The aim of the study was to present the latest reports on the biological activity of the food compounds in a critical review. It has been shown that bioactive substances supplied with food e.g. polyphenols, flavonoids or phenolic acids exhibit immunomodulatory and anti-inflammatory functions. What is more, they favourably downregulate

major oncogenes and enhance suppressors' expression. Studies show that these substances can be an important component of cancer prevention and treatment. However, there are micronutrients like iron or copper which elevated levels in cancer cells occurs and should be considered as a therapeutic targets.

Keywords: Bioactive food compounds, cancer, treatment, prevention

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