

## **Health benefits of flavanoids in nutrigenetics and nutrigenomics perspectives**

### **ABSTRACT**

Flavonoids are the largest and most studied group of plant phenolics. Epidemiological studies suggest that the consumption of flavonoid-rich foods may protect humans against oxidative stress related diseases such as cardiovascular diseases, osteoporosis, hyperlipidemia and diabetes. This chapter aims to review the occurrence of flavonoids from various sources. Additionally, this chapter also highlights the interactions among flavonoids, genes and diseases in nutrigenetics and nutrigenomics perspectives. Clinical studies related to health effects of flavonoids on osteoporosis, menopausal symptoms, obesity, hypertension, hyperlipidemia and cardiovascular health are also discussed in this chapter. Taken together, this chapter intends to provide a new insight for the development of nutrigenetics and nutrigenomics in near future.

**Keyword:** Flavonoids; Health; Nutrigenetics; Nutrigenomics