

# *Lifespan-Extending Effect of Resveratrol and Other Phytochemicals*

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## **13.1 Introduction**

Today, anti-aging methods and ways to prolong life have become the focus of people's attention. As such, researchers throughout the world are searching for ways to live a healthier and longer life. Many research studies have shown that controlling diet leads to a healthier life that ultimately results in longevity. Implementation of restricted diet, known as caloric/dietary restriction, allows people to live longer; in addition, the intake of natural plants has been shown to have beneficial effects on age-related diseases and longevity.<sup>1,2</sup> Such natural plant products used in a therapeutic approach are called nutraceuticals, and their active compounds are phytochemicals.

Phytochemicals are secondary metabolites synthesized by plants—including fruits, vegetables, cereals, nuts, and cacao—to assist in their survival and protect from microbial infection and environmental pollutants. Phytochemicals include several groups of compounds and the phenolic compounds, called polyphenols, are the most well-known group.<sup>1</sup> A lot of phytochemicals