

Tufts-Tohoku study on curcumin + piperine combination verifies Sabinsa's research on synergistic properties

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Sabinsa has been promoting the combination of Curcumin C3 Complex and BioPerine for more than two decades based on research showing the synergy between the company's proprietary curcumin and piperine ingredients.

New, independent affirmation of that synergy by scientists at the Jane Mayer US Department of Agriculture Human Nutrition Center for Aging at Tufts University and Tohoku University, Japan, has been published in Nutrition & Metabolism.

The open access study, "Curcumin and piperine supplementation of obese mice under caloric restriction modulates body fat and interleukin-1 β ," can be read [here](#).

Caloric Restriction (CR) is a means of modulating energy expenditure and fat metabolism. CR has been also intimately connected with longevity.

Additionally, the length of telomeres, the protective end-caps on the end of chromosomes preserving the integrity of DNA, is indicative of cellular health.

Shortening of telomeres points to cellular senescence and ageing. Nutrients that contribute to the lengthening of telomeres are believed to possess antiageing properties.

In an animal study on HFD (high fat diet)-fed mice extending 53 weeks, the scientists concluded that curcumin-piperine combination contributed additively to CR and this nutrient-combination has potential to enhance CR effects for the prevention of metabolic syndrome.

In HFD-fed mice, administration of the curcumin-piperine combination maintained the telomere length more efficiently than the individual components, thus indicating their synergistic activity.

The scientists also measured the loss of fat in the HFD-fed animals using MRI (Magnetic Resonance Imaging).

This nutrients-combination was effective also in reducing certain inflammatory cytokines as measured by the levels of circulating cytokines.

"On the whole, it was concluded that this nutrient combination, curcumin-piperine, works well to reduce total body fat, reduces cellular ageing as indicated by preserving telomere length, and enhances the CR effects for the prevention of metabolic syndrome by reducing the low grade chronic inflammation that always persists in obese conditions," said Nagabhushanam Kalyanam, Ph.D., President (R&D), Sabinsa.

