**IN THE NEWS**

**Soy Isoflavones, Curcumin Synergize to Thwart Pancreatic Cancer**

Soy isoflavones and curcumin work together to decrease activation of genes that help cancer cells survive, and could help avert pancreatic cancer, a new study reveals.*

Pancreatic cancer remains the fourth leading cause of cancer deaths, and effective prevention and treatment strategies are greatly needed.

Noting that pancreatic cancer incidence is relatively low among Asians, American researchers wondered if traditional Asian dietary elements, such as soy isoflavones and curcumin might offer anticancer activity.

The scientists added isoflavones and curcumin, individually and in combination, to pancreatic cancer cell cultures. Their results revealed that “inhibition of cell growth and induction of apoptosis [cellular suicide] was significantly greater in the combination group than could be achieved by either agent alone.”

Soy isoflavones and curcumin may work by suppressing the activity of nuclear factor-kappa B (NF-kB), a key regulator of inflammatory and immune responses that is believed to play an important role in the progression of cancer.

—Dale Kiefer


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**Lycopene Lowers Lipids, Slows Accumulation of Atherosclerotic Plaque**

Lycopene slowed the development of atherosclerosis in rabbits fed a high-fat diet, similar to the effects of fluvastatin, a new study reports.*

Lycopene is a carotenoid found at high levels in tomatoes that has an antioxidant effect. Statin drugs like fluvastatin prevent atherosclerosis by suppressing the accumulation and oxidation of low-density lipoprotein (LDL).

Forty rabbits were treated in one of five groups: a standard diet (control), a high-fat diet alone, a high-fat diet with 4 mg/kg or 12 mg/kg lycopene, or a high-fat diet with 10 mg/kg fluvastatin.

After eight weeks, all treated groups had significantly lower levels of total cholesterol, triglycerides, and LDL compared with the high-fat diet alone. Both lycopene and fluvastatin reduced atherosclerotic plaque formation, but lycopene was superior to fluvastatin for decreasing lipid levels, oxidized LDL, and inflammation.

Overall, the authors conclude, “these findings provide a theoretical rationale for the use of lycopene as a preventive and therapeutic drug in atherosclerosis.”

—Laura J. Ninger, ELS


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**Resveratrol Slows Aging in Mice**

Resveratrol, a compound found in red grapes and other foods, attenuates the effects of aging in mice,* similar to benefits previously found with calorie-restricted diets. Research has shown that resveratrol extends the life span of certain yeast, worms, flies, and fish.

Experimental mice were treated with dietary restriction (every-other-day feeding), a high-calorie diet, or a standard (control) diet, each group either with or without resveratrol. Regardless of the diet, resveratrol supplementation for about one year suppressed age-related cardiovascular disease, osteoporosis, cataracts, and decline in motor coordination, similar to dietary restriction. In treated mice, liver and muscle tissues resembled those in younger animals.

The benefits of resveratrol may be due to antioxidant and anti-inflammatory effects. Resveratrol may become useful in humans to mimic some of the beneficial effects of dietary restriction without actually decreasing caloric intake.

—Laura J. Ninger, ELS
