

**【P3-12】**

**The Hypolipidemic effect of *Paecilomyces tenuipes* in Rats Fed with High Fat-cholesterol Diet**  
Sang Mong Lee<sup>1</sup>, Eunju Park<sup>2</sup>, Bo Youn Kim<sup>1</sup>, Gae Jong Choi<sup>1</sup>, Nam Sook Park<sup>3</sup>, Byung Rae Jin<sup>3</sup>,  
Jee Hyung Jung<sup>4</sup>

<sup>1</sup>Department of Sericultural and Entomological Biology, Faculty of Agriculture, Miryang National University <sup>2</sup>Division of Life Sciences, Kyungnam University, <sup>3</sup>College of Natural Resources and Life Science, Dong-A University, <sup>4</sup>College of Pharmacy, Pusan National University

Newly a method for artificial mass-production of the silkworm vegetable wasp and plant worm with *Paecilomyces tenuipes*, silkworm-dongchunghacho, was established in Korea and its pharmacological activities such as anti-aging effect, hypoglycemic activity and anti-fatigue effect, were reported in recent years. However, the hypolipidemic effect of *Paecilomyces tenuipes* was not determined yet. Therefore, we investigated the effect of *Paecilomyces tenuipes* on lipid metabolisms in rats fed with high fat-high cholesterol diet. 8 wk-old male Sprague-Dawley rats (250-270g) were fed a pelleted nonpurified diet for 1 week. Using a randomized complete block design, rats were divided into 3 groups and fed 12g lard and 1g cholesterol/100g diet for 30 days with either no supplement as the control group or two different doses of *Paecilomyces tenuipes* (0.5% or 1.0%). The plasma concentration of total cholesterol and LDL-cholesterol were significantly lower in all of *Paecilomyces tenuipes* supplemented groups than in the high fat and high cholesterol diet group. The ratio of HDL-cholesterol to total-cholesterol increased significantly in 1% of *Paecilomyces tenuipes* supplemented groups compared to high fat-high cholesterol diet. The plasma concentration of total lipid and triglycerides were not affected by addition of *Paecilomyces tenuipes*. The hepatic cholesterol and triglycerides decreased significantly in 1% *Paecilomyces tenuipes* group compared to the control group. Our data demonstrate that the *Paecilomyces tenuipes* supplementation can alter plasma lipid profiles in rats fed with high fat and high cholesterol diet.