

**[P3-21]****Effect of naringin supplements on ethanol and antioxidant metabolism in ethanol-treated rats.**

Hyun-Ju Seo<sup>a</sup>, Mi-Kyung Lee<sup>b</sup>, Yong Bok Park<sup>c</sup>, Seon-Min Jeon<sup>a</sup>, Jeong-Sun Lee<sup>a</sup> and Myung-Sook Choi<sup>a</sup>

*a Department of Food Science and Nutrition, Kyungpook National University, 1370 Sankyuk Dong Puk-ku, Daegu, 702-701, South Korea., b Food and Bio-Industry Research Institute, Kyungpook National University, Daegu, 702-701, South Korea., c Department of Genetic Engineering, Kyungpook National University, Daegu, 702-701, South Korea*

This study was performed to investigate the effect of naringin supplements on the alcohol and antioxidant metabolism in ethanol-treated rats. Male Sprague-Dawley rats were randomly divided into six groups (n = 10) based on six dietary categories : ethanol and naringin-free, ethanol (50 g/L) plus low-naringin (0.05 g/L), ethanol plus high-naringin (0.125 g/L), and three corresponding pair-fed groups. The pair-fed control rats received an isocaloric diet containing dextrin-maltose instead of ethanol for 5 wks. Among the ethanol treated groups, the naringin supplements significantly lowered the plasma ethanol concentration with a simultaneous increase in the ADH and/or ALDH activities. Among the ethanol-treated groups, the low-naringin supplementation resulted in a significant decrease in the levels of plasma and hepatic TBARS, whereas it resulted in higher SOD and GSH-Px activities and glutathion levels in the liver. Accordingly, naringin would appear to contribute to alleviating the adverse effect of ethanol ingestion by enhancing the ethanol metabolism and the hepatic antioxidant defense system.