

**[P2-2]****Effect of fractions isolated from *Rubus coreanus* on postprandial blood glucose in streptozotocin-induced diabetic rats**

Jung-In Kim<sup>1</sup>, Hee-Jung Joo<sup>1</sup>, Ji-Eun Lim<sup>1</sup>, Min-Jung Kang<sup>1</sup>, Suk-Heui Jung<sup>1</sup>, and Jong-Jin Kim<sup>2</sup>

<sup>1</sup>School of Life and Food Sciences, Inje University, Kimhae, <sup>2</sup>Department of microbiology, Gyeongsang National University, Jinju

The purpose of this study is to investigate the effect of active fractions isolated from *Rubus coreanus* on control of postprandial blood glucose *in vitro* and *in vivo*. *Rubus coreanus* was extracted with 50% ethanol and concentrated. Fractions with M.W. over 10,000 were isolated using UF membrane and lyophilized. This fraction (0.5 mg/mL) inhibited activity of yeast  $\alpha$ -glucosidase by 67.1% and rat intestinal  $\alpha$ -glucosidase by 23.6% *in vitro*. The radical scavenging activity on DPPH radical was 95.3% at the concentration of 0.05 mg/mL and IC50 was 0.018 mg/mL. Streptozotocin(STZ)-induced diabetic rats (n=12) were offered starch (1g/kg) alone or starch with *Rubus coreanus* fraction (500 mg/kg) by gastric intubation. Blood samples were collected from tail vein and glucose levels were measured by glucometer at 0~240min. Increase of blood glucose of rats consumed starch and *Rubus coreanus* fraction was significantly lower at 30min compared with rats consumed starch alone ( $p<0.05$ ). *Rubus coreanus* fraction significantly decreased incremental area of postprandial glucose responses in diabetic rats. Thus *Rubus coreanus* fraction could be beneficial in controlling postprandial hyperglycemia.