

**E115**                    **Purification and Characterization of Biliverdin-binding protein from the gypsy moth, *Lymantria dispar***

Do Seun Byun\*, Sang Dae Lee<sup>1</sup> and Hak Ryul Kim  
Department of Biology, Korea University  
Department of Biology, Seo nam University<sup>1</sup>

Biliverdin-binding protein(BP) was isolated from the last instar larval haemolymph of gypsy moth, *Lymantria dispar* and its physicochemical properties were characterized. In order to purify BP, last instar larval haemolymph was ultracentrifuged in KBr density gradients, subjected to sephadex G-200 gel permeation chromatography and preparative electrophoresis. The molecular weight of BP subunits was determined as about 80KDa on SDS-PAGE. Immunoblotting experiments revealed that antiserum against the BP from *L. dispar* was related with those of other Lepidopteran species. The N-terminal sequence and amino acid composition of BP were analyzed. In addition lipid, carbohydrate composition analysis was also carried out.

**E116**                    **Purification and Characterization of Ferritin from Hemolymph of *Galleria mellonella*.**

Beom Su Kim\*, Chi Young Yun<sup>1</sup> and Hak Ryul Kim  
Department of Biology, Korea University, <sup>1</sup>Department of Biology, Taejon University

The ferritin of the Wax moth, *Galleria mellonella*, has been purified from the hemolymph of last instar larvae by KBr density gradient ultracentrifugation and FPLC(superose 6). Ferritin was stable at heat(75°C), so it was used for purification step. Ferritin retained a brown color in the pellet, and was stained positively with the iron-specific stain, Ferene S. SDS-PAGE revealed that this ferritin consists of two major polypeptide chains of 25 and 31kDa and one minor polypeptide chain of 30kDa. The ferritin has only 3 isoforms with a pI 6.5 - 7.1. The anti-ferritin serum reacted with hemolymph, fat body and midgut, but did not react with horse ferritin.