B10

Immunological Peroperties and Stage-Dependent Synthesis of the Pupal Major Haemolymph Protein of the Wild Silkmoth, *Antheraea pernyi.*

Sang Bong Park[1], Jeong Wha Kim[2], Soohyun Kim[3], Nam Sook Park[4], Hung Dae Sohn[4], Byung Rae Jin[4] and Sang Mong Lee[1]

[1]Department of Sericultural and Entomological Biology, Faculty of Agriculture, Miryang National University, Miryang 627-702, Korea, [2]Department of Agri-Biology, College of Agriculture, Chungbuk National University Cheongju 361-763, Korea, [3]Biomolecule Research Team, Korea Basic Science Institute, Taejon 305-333, Korea, [4]College of Natural Resources and Life Science, Dong-A University, Busan 604-714, Korea

Immunological properties and the stage-dependent synthesis of the pupal major haemolymph protein (AMHP) of the wild silkmoth, *Antheraea pernyi* were investigated. Anti-AMHP serum was prepared by immunizing the mouse with AMHP purified from the pupal haemolymph of the *A. pernyi*. In Western blot analysis following native- and SDS-PAGE, the antibody against AMHP cross-reacted with the AMHP in the haemolymph of both the sexes excluding the male adult during all the developmental stages from egg to adult. Also, the antibody cross-reacted with the crude protein extract of the haemolymph, integument, fat body, midgut, excluding silk gland, in the 5th instar larvae. By tracer experiments using [^{14}C]-leucine, the synthetic activity was detected strongly in the haemolymph of the early larvae, weakly in the haemolymph of the middle and late larvae in the 5th instar, but absolutely not in the pupal stage. These results revealed that the AMHP is synthesized strongly in the 5th larval stage and being used for subsequent transformation event from pupa to adult of the *A. pernyi*, and is independent upon the protein of the silk glands.