

C107 **Ultrastructure of the Malpighian Tubule Cells in the Mosquito, *Culex pipiens pallens***

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The epithelium of the Malpighian tubules in the mosquito last instar larva, *Culex pipiens pallens*, was observed using the electron microscope. The mosquito larva had 2 pairs of Malpighian tubules which were consist of a long tubular epithelium. The epithelium was composed of cells encircling lumen, and the free surface of the epithelial cells had a regular array of microvilli "brush border", in which cell membranes close to the basement membrane were extremely infolded and a lot of mitochondria were concentrated in those processes. The epithelial cells had also well-developed rER and abundant ribosomes. But the Malpighian tubule epithelium was divided into two distinct proximal and distal segments. The distal segment was composed of type I cells. They were characterized by the microvilli which were short and loosely packed, and basal infoldings formed irregularly dilated canaliculi. And rough endoplasmic reticulum, ribosomes and cell organelles were well developed in the cytoplasm. The proximal segment was composed of type II cells. Thses cells were characterized by the thin microvilli which were compactly arranged and contained a number of mitochondria. Basal infoldings formed narrow canaliculi which were associated with mitochondria. And numerous vacuoles and spherites were seen in the cytoplasm.

C108 **Water Soluble Chitosan Prevents Alcohol-induced Liver Injury in Mouse**

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This study was performed to investigate the effects of water soluble chitosan on liver function in mouse administrated ethanol. Administration of 10% ethanol in drinking water to mouse for 6 weeks caused hepatic injury, showing the following characteristics: contraction of liver cells, accumulation of lipid droplets, and increase of snusoidal endothelial cells. But simulataneous administration of ethanol and chitosan prevented remarkedly alcohol-induced liver injury even though the increase of snusoidal endothelial cells was similar to ethanol-fed mouse. Morphological and biochemical data in ethanol-fed mouse will be presented.