

**C101** The Mitigative Effect of *Ulmus pumila* Extract on Rheumatoid Arthritis

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This study was performed to investigate the mitigative effect of *Ulmus pumila* extract(UPE) on rheumatoid arthritis(RA). The RA on female Balb/c mice were induced by Lipopolysaccharide injection, as dose of 300 $\mu$ l/kg, into synovial cavity of knee joint and then were administered with UPE, a dose of 0.33ml/kg/day, for 21 days. The were fixed in 10% neutral buffered formalin and were decalcificated in EDTA solution for 4 weeks. The hyperplasia of synovial membrane(SM) and migration of inflammation component cell and fibrosis in fibrous membrane(FM) were diminished on UPE treated mice than RA group. Especially, The distribution of IL-1B and IL-2R positive reactive cell in SM and ICAM in FM were decreased on UPE extract treated mice. As results indicated that the UPE mitigated the RA.

**C102** Fine Structural Analysis of the Ovarian Development in the Wolf Spider, *Pardosa astrigera*

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Fine structural change of the oocyte during the ovarian development in the wolf spider *Pardosa astrigera* is studied with light and electron microscopes. A pair of clustered ovaries of this spider are located at ventral part of the abdomen, and have elongated tubular structure. Each oocyte is protruded from the ovarian surface and enveloped by the vitelline and chorionic membranes. During the oogenesis, the cytoplasm of each oocyte has a variety of yolk granules which composed of protein and lipid components. Numerous pinocytotic vesicles are transported across the vitelline membrane, and electron-dense proteid yolk granules are formed by the vesicular fusion. At the same time, electron-lucent lipid yolk granules and glycogen particles are also accumulated in the cytoplasm. Matured oocytes have well-separated vitelline membranes and the chorionic membranes which composed of the endo-chorionic and the exo-chorionic membranes. After fertilization, the yolk granules in the oocyte are gradually consumed, and alternation of the vitelline membrane also appeared.