C104 Immuno Electronmicroscopic Analysis of Dopamine D1 and D2 Receptor Proteins in Rat Striatum

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Dopamine(DA) receptor proteins were localized in striatal neurons. DA D1 and D2 receptor protein localization was investgated using immuno electromicroscope techniques in rat striatum. To examine the precise cellular localization of these receptors, immuno cytochemistry with specific polyclonal antibodies was performed on sections of rat striatum by light and electron microscopy, and western blotting. Adult Spraque-Dawley male rats were dissected and the striatum was separated from the forebrain. The tissues were fixed by immersion in a mixture of 0.4% glutaraldehyde and 2% paraformaldehyde. Ultrathin sections were mounted on 200 mesh nickel grid. The sections were incubated with 1:1000 diluted rabbit antiserum against DA D1 and D2 receptor and rabbit IgG gold(20nm). In light microscopy, DA D1 and D2 receptor had similar regional distributions with the most intense staining in rat striatum. In immuno electron- microscopy, DA receptors proteins were highly selective cellular distributions. DA D1 and D2 receptor immunoreactivity was ultrastructural localized in postsynaptic dendrites of spiny dendrites, secretory granule, endocytic vesicles and in cell bodies of striatal neurons.

C105 Histochemical and Ultrastructural Analysis of the Stomach after Starvation of the Bombina oientalis

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Histochemical and ultrastructural changes of the amphibian stomach in Korean fire-bellied toad, *Bombina orientalis* were analyzed by the light and electron microscope after long duration of starvation. The normal epithelial cells that had well developed microvilli were showed strong PAS-positive reaction and the mucous neck cell had large secretory granules in their apical cytoplasm. After starvation, the numbers of apical mucous granule were gradually increased and diminished microvill were observed. Moreover, thickness of the mucosa and submucosa layers was remarkably decreased.

C106 Radiation-induced Follicular Apoptosis in Mouse Ovary

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To assess the apoptotic or proliferating changes in the ovarian follicles, -irradiation or the administration of follicle stimulating hormone were carried out in 3 week old female mouse. Whereas in the atretic follicles in control and irradiation groups showed a significantly lower number of labelled cells. TUNEL, p53 and p21 stainablilities were weak in healthy follicles in the control and in FSH treatment group, but in radiation group, especially at 24 hours, the stains were very strong, The expressions of p53 and p21 mRNA were increased in the radiation group. However, the levels were significantly decreased in FSH treatment group. In summary, granulosa cell apoptosis is linked with the increased expressions of tumor suppressor genes and mitotic inhibitors. Also, it can be thought that the combination of TUNEL with BrdU, p53, p21 immunohistochemistries might be used as a useful method for identifying ovarian follicular apoptosis.