National Institute of Toxiological Research, Korea FDA, *College of Pharmacy, Chungbuk National University

The peroxisome proliferator-activated recetor-γ(PPAR-γ), a member of the nuclear hormone receptor superfamily, is activated by structually distinct ligands, including anti-diabetic thiazolidinediones, several non-steroidal anti-inflammatory drugs (NSAIDs), and 15-deoxy-Δ12,14-prostaglandin J2 (15 d-PGJ2). Activation of PPAR-γ has been found to promote neurite outgrowth of differentiating PC 12 cells. However, it is not clear yet as to what signaling pathway is required for the promotion of neurite outgrowth. Since transcription factors AP-1 and NF-κB are known to play a predominant role in the cell differentiation, this study was designed to investigate the activation of AP-1 and NF-κB during the neurite outgrowth in cultured PC-12 cells, a useful system for the study of differentiation function. Activation of AP-1 and NF-κB was concomitantly increased by the increase of neurite formation by nerve growth factor with/without 15-deoxy PGJ2. In addition, ochratoxin A, which blocked neurite formation, inhibited activation of AP-1 and NF-κB. These data show that AP-1 and NF-κB signals may be important in the neurite formation. Apoptosis during neurite outgrowth, role of PPAR-γ, and crosstalk between PPAR-γ expression and activation of transcription factors are being investigated.

[PB3-9] [04/19/2001 (Thr) 15:30 - 16:30 / Hall 4]

NO modulates the anxiolytic effects of acute morphine in the plus-maze

Shin Im-Chul°, Kim Hack-Seang, Oh Ki-Wan

Department of Pharmacy, College of Pharmacy, Chungbuk National University, Cheongju, 361-763, Korea

This experiment was performed to investigate whether NO precursor (L-arginine), NO donor (S-nitroso-N-acetlypenicillamine, SNAP) and NO synthase inhibitors [L-NG-nitro-arginine methyl ester (NAME) and NG-nitro-L-arginine (NOARG)] modulate morphine-induced anxiolytic effect in the plus maze. L-arginine (200 and 300 mg/kg, i.p) and SNAP (4, 8 and 10 mg/kg, i.p) reduced the anxiolytic effect of morphine (20 mg/kg, s.c). NAME (10, 20 and 40 mg/kg, i.p) and NOARG (10, 15 and 20 mg/kg, i.p) enhanced the anxiolytic effect of morphine (20 mg/kg, s.c). L-arginine and SNAP increased the morphine-induced locomotor activity. NAME decreased the mophine-induced locomotor activity but NOARG did not modify the morphine-induced locomotor activity. Therefore, the results suggest that the anxiolytic effects of morphine can be modulated by NO system in independent manner of locomotor.

Poster Presentations - Field B4. Immunology

[PB4-1] [04/19/2001 (Thr) 15:30 - 16:30 / Hall 4]

Effect of B30-MDP, a MDP derivative, as an adjuvant for tumor vaccine

Yoo YC°1, Lee KB2, Lee M1, Paik TH1

1 Department of Microbiology, College of Medicine, Konyang University 2 Department of Biochemistry College of Medicine, Konyang University

The effect of B30-MDP, a derivative of muramyl dipeptide (MDP), on enhancement of antitumor