**POSTERS RELATED TO S13**

**TUE-S13-22**

IN VITRO TRANSLATION OF POLY(A)RNAs FROM DIFFERENT BRAIN STRUCTURES AFTER CORTEX TREATMENT


Brain is known as a target organ for glucocorticoids. We demonstrated regional differences with respect to amino acid incorporation after cortisol treatment. The increase was highest in Septum and Hippocampus. The poly(A)RNAs were isolated from these structures and their translational capacities were tested in a wheat germ system. Among the products analysed by two dimensional gel electrophoresis an increased incorporation of [35S]-met. was observed in the proteins of the region of 50-55 Kd after cortisol treatment.

**TUE-S13-23**

THE ACTIVATION OF GLUCOCORTICOID RECEPTOR IN DIFFERENT REGIONS OF THE BRAIN

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The glucocorticoid specific binding proteins in the septum (S), hippocampus (H) and hypothalamus (Hy) of rat brain were investigated. In vivo experiments show that the highest level of specific receptors are found in H followed by S and Hy. The activation of the receptor examined by the DNA-cellulose method and chromatography on DEAE-S-50 minicolumn was not identical in these regions. These results suggest that the receptor structure is not identical in all the regions examined which is in agreement with the new hypothetical model of the structure of the glucocorticoid receptor of Kazanir et al.

**TUE-S13-24**

ANDROGENIC CONTROL OF PROSTATIC PYRUVATE DEHYDROGENASE

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Cyclic AMP and cGMP determined in prostatic homogenates at basal and androgen stimulated concentrations. The androgen effect was mediated through the nuclear androgen receptor. The androgen effect increased the proportion of active PDH. The androgen effect was not due to changes in the tissue concentration of pyruvate or adenine nucleotides. The inhibition of protein synthesis with cycloheximide for 1 h decreased the amount of active PDH in normal, testosterone-maintained rats, but not in castrates. Total PDH did not change in either case. Cycloheximide given 2 h before hormone abolished the androgen effect. It is concluded that continuous protein synthesis is needed for the androgenic control of the interconversion of PDH between its active and inactive forms.

**TUE-S13-25**

GLUCOCORTICOID ACTION IN HUMAN LEUKAEMIA CELLS

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Glucocorticoid treatment of CCRF-CEM human lymphoblastoid leukemia cells (clone C7) results in growth arrest and cell lysis within 48-72 h. These experiments show that the highest level of specific receptors are found in H followed by S and Hy. The activation of the receptor examined by the DNA-cellulose method and chromatography on DEAE-S-50 minicolumn was not identical in these regions. These results suggest that the receptor structure is not identical in all the regions examined which is in agreement with the new hypothetical model of the structure of the glucocorticoid receptor of Kazanir et al.

**TUE-S13-26**

CHARACTERIZATION OF AN ANTISERUM AGAINST THE GLUCOCORTICOID RECEPTOR


An immunoglobulin (IgG) fraction from serum of a rabbit immunized with a highly purified preparation of glucocorticoid receptor (GR) from rat liver cytosol contained specific antibodies to GR. The antiserum reacts with both cytosolic and nuclear GR as well as with activated and nonactivated receptor. No crossreactivity was seen with wheat germ system. Among the products of the antisem was against the GR, opening the possibility for a quantitative and qualitative immunoassay.

**TUE-S13-27**

CYCLIC NUCLEOTIDES IN EARLY PREGNANCY

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Rats were bilaterally ovariectomised and maintained on a variety of regimes of progesterone and oestradiol. Animals were sacrificed at various times after hormone treatment, and cAMP and cGMP determined in the uterus. In animals primed with oestradiol, and then treated with a progesterone/oestradiol regime there was an initial increase in cAMP (1.5 times) followed 4 hours later by a rise in cGMP levels (3.0 times). This pattern which is similar to that found in pregnancy, was only obtained with the above schedule. Investigations of the compartmentalization of nucleotide cyclases, using biochemical and E.M. histochemical methods, show these nucleotides to be of both endometrial and myometrial origin.