

## PRELIMINARY COMMUNICATION

### DESENSITIZATION OF H<sub>2</sub>-LIKE HISTAMINE RECEPTORS STIMULATING CYCLIC AMP FORMATION IN THE CHICK CEREBRAL CORTEX

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Histamine potently stimulates cyclic AMP formation in slices of the chick cerebral cortex. Pretreatment of the tissue slices with 10 μM histamine for 2–30 min led to a time-dependent attenuation (when compared with values observed in the control tissue) of the cyclic AMP response produced by subsequent re-stimulation with 1, 10 or 100 μM histamine. The observed histamine-induced desensitization appears to be specific and homologous as the increase in cyclic AMP formation evoked by both forskolin or pituitary adenylate cyclase-activating polypeptide (PACAP) in slices pretreated with 10 μM histamine for 15 min was unchanged. It is concluded that in the chick cerebral cortex, H<sub>2</sub>-like receptors linked to cyclic AMP-generating system undergo rapid homologous desensitization.

**Key words:** *histamine, H<sub>2</sub>-like histamine receptor, cyclic AMP, chick brain, desensitization, forskolin, PACAP*

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