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[Lab. of Pharmacology]

**Diagnosis of Drug Allergy by the Lymphocyte Stimulation Test with the MTT
[3-(4,5-Dimethyl thiazol-2yl)-2,5-diphenyl Tetrazolium Bromide] Assay.**

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The present study was conducted to examine utility of the lymphocyte stimulation test using [3-(4,5-dimethyl thiazol-2yl)-2,5-diphenyl tetrazolium bromide] (MTT) assay as a method for diagnosing drug allergy. We examined the allergenicity of 83 drugs in 43 cases of drug-induced hepatitis. The range of stimulation index was 0.92-2.02. An stimulation index of 1.2 or more was seen in 62.8 % of cases, 1.3 or more in 51.2 % of cases, and 1.4 or more in 41.9 % of cases. There were 26 drugs with stimulation index greater than 1.3. Seven of these were antibiotics, while the rest included antihypertensives, analgesics, psychotropics, antiallergics and antiepileptics.

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[Lab. of Pharmacology]

**Pharmacological Modulation of Antigen-Induced Airway Hyperresponsiveness by
Thromboxane A₂ Inhibitors in Guinea Pigs.**

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The effects of OKY-046 (thromboxane A₂ (TXA₂) synthetase inhibitor) and ONO-3708 (TXA₂ receptor antagonist) on antigen-induced airway hyperreactivity in guinea pigs were investigated. Seven inhalations of an antigen into actively sensitized animals resulted in an increase in airway reactivity to acetylcholine. Twenty-four hours after the final inhalation, the number of leukocytes and the quantity of mediators in bronchoalveolar lavage fluid increased. The drugs inhibited the antigen-induced airway hyperreactivity, but had no effect on the accumulation of inflammatory cells. OKY-046 also inhibited an increase of thromboxane B₂. These results suggest the participation of TXA₂ in the onset of antigen-induced airway hyperresponsiveness.

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[Lab. of Pharmacology]

**Effects of MKS-492 on Antigen-Induced Bronchoconstriction and Allergic Reaction in
Guinea Pigs and Rats.**

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Effects of MKS-492, a type III phosphodiesterase inhibitor, on antigen- and PAF-induced bronchoconstriction and allergic reactions in guinea pigs and rats were investigated. MKS-492 inhibited antigen- and PAF-induced bronchoconstriction, and PAF-induced increase in airway responsiveness to histamine in guinea pigs. MKS-492 relaxed guinea pig tracheal muscle potently, and inhibited LTB₄-induced airway eosinophilia. MKS-492 inhibited skin reactions caused by PCA and mediators in rats and antigen- and phospholipase A₂-induced histamine release from guinea pig lung tissue. MKS-492 also inhibited PAF-induced O₂⁻ generation from guinea pig alveolar macrophages.