〔J. Org. Chem., **51**, 3931 (1986)〕

Nucleobase Difunctionalized β-Cyclodextrins. Preparation and Spectral Observation of the Base Stacking and the Hydrogen-Bonded Nucleic Acid Base Pair.

KATSUYUKI NAGAI, KENJI HAYAKAWA, SHIGEO UKAI*, KEN KANEMATSU

Syntheses and characterization of difunctionalized β-cyclodextrins are described, in which two kinds of nucleobases (adenine and thymine) are attached to the C-6 positions of β-cyclodextrin through flexible carbon chains. Specific base-base interactions and the pH control of binding abilities of these compounds are discussed on the basis of measurements of ^{1}H-NMR, UV, and circular dichroism spectra. A remarkable pH dependence of the binding abilities observed for the adenine-thymine-functionalized cyclodextrins demonstrates a unique on-off switched capping mechanism due to the specific hydrogen bonds.

〔Arzneim. -Forsch./Drug Res., **36**, 1609 (1986)〕

Effects of the New Antiallergic Drug 11-Oxo-11H-pyrido〔2,1-b〕quinazoline-2-carboxylic Acid on Immediate Allergic Reactions.

A. KODA*, H. NAGAI, H. MORI, N. INAGAKI, T. NISHIYORI, N. MATSUURA, T. IWAMOTO, K. FURUKAWA, H. YAMADA, S. GOTO, M. MIHARA

The effects of 11-oxo-11H-pyrido〔2,1-b〕quinazoline-2-carboxylic acid (Sm 857) on immediate type, particularly type I allergic reactions were investigated. 48-hr PCA in rats was inhibited by *p.o.* or *i.v.* administration of Sm 857, but the inhibitory effect was reduced markedly in adrenalectomized rats. Sm 857 inhibited histamine-induced capillary permeability in rats. Sm 857 inhibited antigen-induced histamine release but SRS-A release from the peritoneal cavity of rats. Sm 857 showed an inhibitory effect on experimental asthma in guinea pigs.

〔Japan. J. Inflammation, **6**, 361 (1986)〕

Immunological Liver Injury in Mice.

HIROICHI NAGAI, HIROAKI YAMADA, IKUHISA YAKUO, AKIHIDE KODA*, KAZUMI NIU, KYOICHI ASANO, MAKOTO KATO, MASAYASU KURONO

An experimental liver injury was produced in mice by injection of a sub-hepatotoxic dose of anti-basic liver protein(BLP) antibody after immunization of rabbit IgG (RGG). Strain DBA/2 mice indicated the highest susceptability to the disease. Typical histopathological changes in the liver were submassive hepatocellular necrosis and infiltration of granulocytes and lymphocytes into the portal tract and sinusoid in necrosis lesion. Administration of either prednisolone (10 and 20mg/kg), cyclophosphamide (5 and 10mg/kg) or cianidanol (500 and 1000mg/kg) for 10 days prior to injection of anti-BLP antibody suppressed development of liver injury. These results suggest that this model is useful for immunopharmacological studies of liver diseases.