[Cancer Res., 53, 772-776 (1993)] [Lab. of Biochemistry]

Chemoprevention of Oral Carcinogenesis by DL-α-Difluoromethylornithine, an Ornithine Decarboxylase Inhibitor: Dose-dependent Reduction 4-Nitroquinoline 1-Oxide-induced Tongue Neoplasms in Rats.

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The oral administration of DL-difluoromethylornithine to rats during the postinitiation phase of tongue carcinogenesis initiated by 4-nitroquinoline 1-oxide inhibited the incidence of neoplastic and preneoplastic lesions of the tongue in a dose-dependent manner. The inhibition was related to reduction in polyamine lervels of blood and tissue and decrease in the cell proliferation.

[Cancer Res., 53, 3903-3907 (1993)] [Lab. of Biochemistry]

Chemopreventive Effects of Dietary D,L-α-Difluoromethylornithine, an Ornithine Decarboxylase Inhibitor, on Initiation and Postinitiation Stages of Diethylnitrosamine-induced Rat Hepatocarcinogenesis.

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The modifying effects of dietary adminstration of DL-difluoromethylornithine (DFMO) during initiation or postinitiation phase on the hepatocarcinogenesis initiated by diethylnitrosamine were studied. The frequencies of liver cell tumors and the number and area of silver-stained nucleolar organizer regions proteins/nucleus were significantly reduced in rats given DFMO. The inhibition may be due to alteration in cell proliferation activity caused by DFMO.

[Japan. J. Pharmacol., **61**, 23-30 (1993)] [Lab. of Pharmacology]

Suppression of IgE Production by IPD-1151T (Suplatast Tosilate), a New Dimethylsulfonium Agent: (1) Regulation of Murine IgE Response.

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The effect of IPD-1151T on the IgE response was investigated in the mouse system. IPD-1151T suppressed the primary IgE antibody response without affecting the IgG antibody response. The enhanced expression of FcεRII on the spleen cells of immunized mice was also inhibited. The adoptive transfer experiment demonstrated that the treatment with the agent of hapten-primed B cell donors suppressed the hapten-specific secondary IgE antibody response in irradiated recipients. Furthermore, IPD-1151T inhibited the production of interleukin 4 by D10G4. The IgE-suppressive activity of IPD-1151T may be due to the inhibition of interleukin 4 production.