

tyrilyl triglycerides) which are better substrates for pancreatic lipase (JENSEN *et al.*, 1967) (the amounts of free fatty acids in both fats was 0.23 %).

An influence on the rate of lipolysis due to a different fatty-acid composition at the *sn*-2 position cannot be ruled out either (AW & GRIGOR, 1978).

It must be borne in mind that both types of fat might be modified before reaching the intestine (OLIVECRONA, 1973), providing for pancreatic lipase *in vivo* substrates different than the ones used in these experiments.

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Inhibition of bovine rotavirus by interferon.

It has been recently reported by LA BONNARDIERE *et al.* (1980) that bovine rotavirus multiplication in calf kidney cells is only slightly inhibited by interferon while in the same cell system both VSV and reovirus were shown to be highly susceptible.

These data indicate that interferon would be of no practical use for protection of newborn calves against diarrhoea provoked by rotavirus. The results we present here show that using other cell systems and other strains of rotavirus a different conclusion could be drawn.

The action of human, simian and bovine interferons on bovine rotavirus adapted to grow on an established rhesus-monkey kidney cell line (MA 104) or a Georgia bovine kidney cell line (GBK) was investigated, using the plaque assay or the cytopathogenic effect test.

Three different strains of bovine rotavirus were used (PQ strain isolated in Canada and furnished by Dr. M. E. BÉGIN, St-Hyacinthe, Québec and strains S₁₄ and S₇₇ isolated in Belgium). Bovine (Bov IFN) and Simian interferon (Rhesus IFN) were induced by NDV Koumaroff strain in GBK and MA 104 cells respectively.

They were used after treatment at pH 2 for five days, neutralization and clarification by centrifugation.

Human (Hu IFN β) was prepared in human foreskin fibroblasts FS₄ and partially purified according to the method described by KNIGHT (1976).

In none of the conditions reported here was the rotavirus less susceptible to interferon. The choice of the experimental system is therefore important to ascribe the efficiency of interferon against a defined virus.

According to our data, it appears worthwhile to test the effect *in vivo* of interferon on neonatal calf diarrhoea provoked by rotavirus.

Human interferon being still more readily available in high quantity than bovine interferon, and being active in the present heterologous system as shown before in similar conditions by others (GRESSER *et al.*, 1974), we propose to use it in the near future for experimental investigation *in vivo*.

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Promotion of preneoplastic nodules in experimental hepatocarcinogenesis.

Studies on rat liver carcinogenesis have indicated that cells undergo morphologic and biochemical alterations during the progressive stages leading to the neoplastic transformation (FARBER, 1976). Relatively little is known about these critical processes in the interval between the initial carcinogen-cell interaction and the onset of malignancy.

Recent experiments have indicated that promoters are essential for the development of cancer in various organs. For instance, this has been shown with phenobarbital (PB) in liver carcinogenesis (PERAINO *et al.*, 1971).

SOLT & FARBER (1976) and SOLT *et al.* (1977) have described a protocol involving the administration of relatively high doses of diethylnitrosamine (DEN) (200 mg/kg) followed by the short-term administration of a diet containing 0.03 % 2-acetylaminofluorene (2AAF) and a partial hepatectomy. This regimen results in the relatively rapid appearance of small nodules in the liver exhibiting many of the characteristics of enzyme-altered foci. However, this model has not as yet been developed for the efficient demonstration of promoting agents for hepatocarcinogenesis (PITOT & SIRICA, 1980).

The aim of our work was to use the protocol of SOLT & FARBER (1976) and to add a promotion step with PB. Male Wistar rats received one dose of 200 mg/kg DEN (i.p.) followed by no further treatment for 2 weeks. The animals were then placed on a basal diet containing 0.03 % 2AAF. After one week of 2AAF feeding, the animals were submitted to a standard 2/3 hepatectomy and maintained on the 2AAF diet for a second week. Then the animals were returned to the carcinogen-free basal diet for 2 weeks and they received thereafter a continuous feeding with PB-charged diet (0.05 %). The sacrifice occurred 19 weeks after the DEN injection.

The PB-promotion step enhances considerably the number and the volume of the nodules. In our model, 80 % of the liver appears like a multinodular structure whereas without PB promotion, only rare foci or nodules are seen histologically. Gammaglutamyl transferase (GGT, EN 2.3.2.2), an early marker of preneoplastic hepatocytes (KALENGAYI *et al.*, 1975), increases 10 times and more than 650 GGT-positive nodules (many > 3 mm diameter) are present in each cubic centimeter of