

lectin blocking effect. In summary, when organ-specific lectins are blocked with competitive glycoconjugates, tumour cell colonization of the liver can be prevented. The same holds for the settling of bacteria with D-galactose residues (for instance, asialo-B-streptococci).

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CHROMOSOME ABNORMALITIES IN KAHLE'S DISEASE

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Kahle's disease, otherwise known as multiple myeloma or plasma cell myeloma was first described in 1846. Cytogenetic studies have been performed on relatively few patients with this disease to date. The majority had normal karyotypes probably because malignant plasma cells undergo cell division infrequently and thus were not readily detected.

We report here our findings on 49 patients with Kahle's disease collected over a period from 1975 to the present time. Application of cytogenetic banding techniques has identified 15 patients from this group with chromosome abnormalities. Detailed karyotype analyses were performed and whilst the majority of them were complex it would appear that chromosomes 1, 11 and 14 were the most frequently involved.

EXPRESSION OF c-fos, c-myc AND hsp70 GENES IN REGENERATING RAT LIVER

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Partial removal of rat liver induces synchronous entry of G0 hepatocytes into G1 and S phases (at 22 to 28 hr) followed by the wave of mitosis (at 30 to 32 hr). Transient, but significant expression of the c-fos gene at 15 to 60 min after surgery, followed by a second peak at 4 hr was observed in regenerating liver. The c-myc gene was slightly induced within first hour and induction reached maximum at 4 to 8 hr. The second peak of c-myc induction was followed by an increase in the level of one of the hsp70 gene-like transcripts. A

comparison of the hsp70 gene expression pattern in control, partially hepatectomized and heat-shocked rats revealed that hepatectomy brought about the increase in the level of this hsp70-like RNA species which was constitutively expressed in various organs of non-treated rats. Induction of this transcript started at 6 hr and remained elevated through the pre- and replication phase with a slight maximum at 8 to 10 hr of the regeneration.

CO-EXPRESSION OF ALPHA-2-MACROGLOBULIN AND GROWTH PROMOTING ACTIVITY IN HIGHLY AND POORLY TUMORIGENIC MELANOMA CELL LINES

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A panel of highly and poorly tumorigenic melanoma cell lines was analyzed with respect to their expression of alpha-2-macroglobulin and growth factors. For the highly tumorigenic cell lines, shorter population doubling time was characteristic and exhibited slightly higher levels of growth promoting activity in conditioned media than the poorly tumorigenic melanoma cell lines. Heterotransplantation experiments showed that the expression of the alpha-2-macroglobulin was not crucial in the ability of the melanoma cells to form tumours in nude mice. Present results suggest the possibility that alpha-2-macroglobulin secreted by human melanoma cell lines can influence the growth promoting activity expressed by these cell lines.

METABOLISM OF DIETHYLSTILBESTROL IN HAMSTER HEPATOCYTES

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The combined treatment of male Syrian golden hamsters with the synthetic estrogen diethylstilbestrol (DES) and 7,8-benzoflavone (7,8-BF), but not with DES alone nor 7,8-BF alone, gives rise to a near 100% incidence of liver tumours. We hypothesize that 7,8-BF modulates the hepatic metabolism of DES or *vice versa*, thereby leading to tumour induction. To test this hypothesis we are investigating the biotransformation of DES in freshly