was identified involving the deacetylation of circulatory N-acetylputrescine, an excretory product of polyamine metabolism. Three human melanoma cell lines (c8146c, c8161, and c832cy) were co-exposed to 1mM DFMO and a range of doses (1 to 50 μM) of putrescine or N-acetylputrescine. All three cell lines were able to overcome growth arrest by utilization of N-acetylputrescine in a clonogenic assay:

Cell Line	Dose (μM) to 50% Recovery Put	Acput
c8146c	7	68
c8161	0-1	55
c832cy	0-1	20

Utilization of N-acetylputrescine to overcome DFMO growth inhibition was also demonstrated in cells grown as a monolayer. Potentiation of DFMO therapy in human melanoma might be achieved by use of an N-acetylputrescine deacetylase inhibitor.

IMMUNOHISTOCHEMICAL PATTERN OF CEA AS A PROGNOSTIC FACTOR IN ADENOCARCINOMA OF THE HUMAN COLON

A.Nasierowska

Institute of Oncology, Department of Pathology, Warsaw, Poland

The purpose of this study was the immunohistochemical localization of CEA in 198 cases of adenocarcinoma of the human colon. The immunohistochemical grading based on a localization pattern of CEA was used: I-apical, II-cytoplasmic/membranous/stromal, III-apical/stromal. The pattern and the intensity of immunoreactivity of CEA were analysed in relation to patients survival. The patients survival with II-cytoplasmic/membranous/stromal pattern of CEA expression was half that in those with I-apical and II-apical/stromal. Pattern II of CEA immunoreactivity correlated with patients survival in Dukes' stage C. This study shows that immunoperoxidase staining may identify sub-groups of patients with a poor prognosis. With strong positive tissue staining and II-cytoplasmic/membranous/stromal pattern of CEA expression.

VIRAL TRANSDUCTION OF CELLULAR GENES IN NATURALLY-OCCURING FELINE LEUKAEMIAS

James C.Neil(1), Ruth Fulton(1), Robert McFarlane(1), DavidOnions(2), Mark Rigby(1), Monica Stewart(1), Theodore Tzavares(1) and Anne Wheeler(1)

(1)Beatson Institute for Cancer Research; and (2)Department of Veterinary Pathology, University of Glasgow, Bearsden, Glasgow, Scotland, U.K.

De novo recombination leading to retroviral capture of cellular gene sequences appears to be an important oncogenic mechanism in the most common FeLV-associated neoplastic disease, T-cell lymphosarcoma. Multiple examples of myc gene transduction have been recorded (1) and more recently a naturally-occurring feline tumour has yielded the novel finding of a provirus containing the complete coding sequence of a β-chain T-cell antigen receptor gene (2). This potential new oncogene has been called v-tcr. Our current studies are aimed at establishing the possible role of v-tcr in T-cell leukaemogenesis by in vivo experiments with cats and mice, and in vitro by introducing v-tcr proviruses and gene constructs into T-cells. In these experiments we will also test possible synergistic interactions of v-tcr and v-myc and try to devise assay systems for oncogene interactions in T-cell leukaemogenesis.

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SANDWICH HYBRIDISATION ON SEPHACRYL FOR THE DETECTION OF HPV STRAINS

P.J.Nicholls(1), A.D.B.Malcolm(1), C.Wickenden(1) and D.V.Coleman(2)

(1)Biochemistry Department, Charing Cross and Westminster Medical School, London W6 8RF, U.K.; and (2)Pathology Department, St. Mary's Hospital Medical School, London W2 1PG, U.K.

It is clear that the reliable detection and strain characterisation of HPV infection would be of great value in gynaecological practice. It is unrealistic to envisage the current methods of DNA detection (dot or slot blotting, followed by hybridisation to a radio-labelled probe and subsequent detection by auto-radiography) being used to screen the target number of patients per annum ($>10^5$ in the U.K.).

We have developed a sandwich hybridisation assay, using Sephacryl as the solid support, which is rapid, inexpensive and amenable to automation. Immobilisation of suitable restriction fragments, together with appropriate stringency of hybridisation, allows us to distinguish among the HPV strains.