Recent theories of the aetiology of HD have postulated immune reactivity to viral or thymic antigens as fundamental to the disease process (Kaplan, *Hodgkin's Disease*, Harvard University Press, 1972).

HD spleen tissue in short-term culture produces high levels of immunoglobulin G in comparison with control spleen cultures. Preliminary results suggest that this immunoglobulin binds to peripheral blood lymphocytes. In addition, supernatants from HD lymph node and spleen cultures inhibited the migration of guinea-pig peritoneal macrophages *in vitro* in 11 of 15 cases. Control supernatants from carcinomatosis and reactive lymph nodes and normal spleens inhibited significantly in only 1 of 16 cases.

The biological properties of this inhibitor parallel those described for lymphocyte derived Migration Inhibition Factor: MIF (David and David, 1972). Lymphokine production *in vitro* is compatible with elevated levels of immune reactivity in HD tissue.

ATTEMPTS TO CULTURE HUMAN TUMOURS *IN VITRO*. R. H. WHITEHEAD and L. E. HUGHES, Department of Surgery, Welsh National School of Medicine, Cardiff.

There is a need for tissue culture lines of human tumours for *in vitro* studies. Attempts have been made to establish such lines from 220 tumour specimens. Ninety-six specimens from breast carcinoma patients have been cultured. These comprised 64 tumour specimens and 32 pleural effusions from patients with advanced disease. No cell lines have been obtained from the tumour specimens although epithelial cells proliferated for at least one month in 19 of the 64; 24/32 pleural effusions proliferated and 13 of these yielded cell lines. The nature of the cell is in doubt because mesothelial cells grow very well under the culture conditions used.

Seven of 29 colonic carcinomata specimens and 7/8 ascitic fluids from patients with colon carcinoma have also grown for at least one month. Three cell lines have been obtained from ascitic fluids; however, the cells are considered to be mainly mesothelial in origin. Good growth has been obtained from 12/24 melanomata cultured and two cell lines have been established.

Although numerous supplements have been added to the basic McCoy's 5A medium, enhanced growth was obtained only after the addition of insulin and galactose.

PROTECTION AGAINST THE CYTOTOXIC AZIRIDINE CB1954 BY AN ARYLIMIDAZOLE WITH ANTI-INFLAMMATORY ACTIVITY. J. A. HICKMAN and D. H. MELZACK, Chester Beatty Research Institute London.

CB1954 (5-[1-aziridinyl]-2, 4-dinitrobenzamide) is a potent and selective cytotoxic compound for the Walker tumour (Cobb *et al.*, *Biochem. Pharmac.*, 1969, **18**, 1519). The cytotoxicity was protected against by purine nucleotides and the purine precursor AIC (4-amino-5-imidazolecarboxamide) (Connors and Melzack, *Int. J. Cancer*, 1971, **7**, 86) but CB1954 had no effect on *de novo* purine biosynthesis (Mandel *et al.*, *Cancer Res.*, 1974, **34**, 275). In the search for the mechanism of action of CB1954 this protection phenomenon has been studied further and the anti-inflammatory agent 2-phenyl AIC (Heyes and Ward, *Br. Appl.*, **41**, 261/70) has been found to be a potent protector which gives a dose reduction factor of 90 in an anti-tumour test of CB1954.

2-Phenyl-AIC inhibits prostaglandin synthesis, as do a number of non-steroidal anti-inflammatory agents such as indomethacin. However, since such agents gave no protection against CB1954, it is considered unlikely that the protection mechanism involves prostaglandin synthesis.

LEUCOCYTOTOXICITY IN MALIGNANT AND NON-MALIGNANT COLONIC DISEASES. B. M. VOSE, M. MOORE, P. F. SCHOFIELD and I. W. DYMOCK, Paterson Laboratories, Manchester, Park Hospital and University of South Manchester.

The cytotoxicity of peripheral blood leucocytes from healthy donors and from patients with disorders of the large bowel, including ulcerative colitis, colon carcinoma, Crohn's disease, irritable colon and diverticular disease for cells cultured from malignant, normal adult and foetal colonic tissues has been compared. Leucocytotoxicity was defined in this study as a statistically significant reduction of target cell survival in microplate wells treated with leucocyte preparations compared with the survival of cells in wells exposed to growth medium