

Meeting Announcements

**FIRST UICC CONFERENCE
ON CANCER PREVENTION IN THE DEVELOPING COUNTRIES**

25–29 August 1981

NAGOYA, JAPAN

Further information from: Division of Epidemiology, Aichi Cancer Center Research Institute, Tashiro-cho Ohikusa, Nagoya 464, Japan.

**Vith MEETING OF THE
EUROPEAN ASSOCIATION FOR RESEARCH ON CANCER**

12–15 October 1981

BUDAPEST, HUNGARY

Sponsored jointly by EACR and the Hungarian Cancer Society.

Two main topics are: 1. Metastases. 2. Tumour-associated markers in diagnosis and therapy

Deadlines for abstracts: 31 March 1981

Further Information from: Dr A. Jeney, Institute of Pathology and Experimental Cancer Research, Semmelweis Medical University, Üllői ut 26, H 1085 Budapest, Hungary.

**CONTEMPORARY ISSUES IN HODGKIN'S DISEASE:
BIOLOGY, STAGING AND TREATMENT**

9–12 September 1981

SAN FRANCISCO HILTON, SAN FRANCISCO, CALIFORNIA, U.S.A.

A symposium sponsored by the National Cancer Institute, with Cancer Clinical Investigation Review Committee.

Deadline for abstracts: 1 March 1981.

Registration limited. Fee \$50.00

Further Information from: Lili Zubar, Box 277, University of Minnesota Hospitals, 420 Delaware Street, S.E., Minneapolis, Minnesota 55455, U.S.A. Tel. (612 373 4309).

**1st INTERNATIONAL SYMPOSIUM ON
MINIMAL INVASIVE CANCER (MICROCARCINOMA)**

1–4 July 1981

KONGRESSHAUS, GRAZ, AUSTRIA

Organized by the University Clinic of Obstetrics and Gynaecology, Graz.

Congress language: English.

President: Professor E. Burghardt, M.D.

Secretary General: Professor E. Holzer, M.D.

Further information from: Secretariat, Interconvention, P.O. Box 105, A 1014 Vienna. Tel. (0222) 576288.

**UICC CONFERENCE ON CLINICAL ONCOLOGY
HELD CONJOINTLY WITH THE
7th ANNUAL MEETING OF THE
EUROPEAN SOCIETY OF MEDICAL ONCOLOGY**

29–31 October 1981

PALAIS DE BEAULIEU, CONGRESS CENTRE, LAUSANNE, SWITZERLAND

Hosted by the Swiss Cancer League and EORTC.

Further information from the Secretary General: Dr P. Siegenthaler, 1000 Lausanne 6, Switzerland.

INTERNATIONAL SOCIETY OF HAEMATOLOGY

30 August–4 September 1981

The 6th meeting of European-African Division will take place in Athens, Greece.

President: Dr Ph. Fessas.

Enquiries: Secretariat, PO Box 52, Athens 624-A, Greece.

12th INTERNATIONAL CONGRESS OF CHEMOTHERAPY

19–24 July 1981

FLORENCE, ITALY

Further information from Congress Secretariat, via della Scala 10, Florence 50123, Italy.
Deadlines: Abstracts 15 February 1981. Registration fee 15 March 1981.

INTERNATIONAL JOURNAL OF CANCER

CONTENTS, VOLUME 26, NUMBER 6, DECEMBER 1980

Human Cancer

- HOLMAN, C. D. J., JAMES, I. R., GATTEY, P. H. AND ARMSTRONG, B. K.—An analysis of trends in mortality from malignant melanoma of the skin in Australia.
- YARRISH, R. L., WERNER, B. G. AND BLUMBERG, B. S.—Association of hepatitis B virus infection with hepatocellular carcinoma in American patients.
- TVEIT, K. M., FODSTAD, Ø., OLSNES, S. AND PIHL, A.—*In vitro* sensitivity of human melanoma xenografts to cytotoxic drugs. Correlation with *in vivo* chemosensitivity.
- SCHAADT, M., DIEHL, V., STEIN, H., FONATSCH, C. AND KIRCHNER, H. H.—Two neoplastic cell lines with unique features derived from Hodgkin's disease.
- CASCINELLI, N., MORABITO, A., BUFALINO, R., VAN DER ESCH, E. P., PREDA, F., VAGLINI, M., ROVINI, D. AND OREFICE, S.—Prognosis of stage I melanoma of the skin.
- LEVINE, P. H., CONNELLY, R. R. AND EASTON, J. M.—Demographic patterns for nasopharyngeal carcinoma in the United States.
- FONATSCH, C., SCHAADT, M., KIRCHNER, H. AND DIEHL, V.—A possible correlation between the degree of karyotype aberrations and the rate of sister chromatid exchanges in lymphoma lines.
- JAIN, M., COOK, G. M., DAVIS, F. G., GRACE, M. G. HOWE, G. R. AND MILLER, A. B.—A case-control study of diet and colo-rectal cancer.
- HEMSTREET, G. P., III, WHITTLIFF, J. L., SARRIF, A. M., HALL, M. L., III, McRAE, L. J. AND DURANT, J. R.—Comparison of steroid receptor levels in renal cell carcinoma and autologous normal kidney.

Experimental Cancer

- ALLOUCHE, M., DELBRÜCK, H. G., KLEIN, B., MASSE, R., MATAR, A., MORIN, M., LAFUMA, J. AND JASMIN, C.—Malignant bone tumours induced by a local injection of colloidal radioactive ¹⁴⁴cerium in rats as a model for human osteosarcomas.
- HELLSTRÖM, I., SETTLE, S. CHAPMAN, W. H. AND HELLSTRÖM, K. E.—Monoclonal antibody to an antigen, p75, shared by carcinomas of the mouse urinary bladder.
- ZÁKÁNY, J., CHIHARA, G. AND FACHET, J.—Effect of lentinan on the production of migration inhibitory factor induced by syngeneic tumor in mice.
- KÄRRE, K., KLEIN, G. O., KIESSLING, R., KLEIN, G. AND RÖDER, J. C.—*In vitro* NK-activity and *in vivo* resistance to leukemia: Studies of beige, beige/nude and wild type hosts on C57BL background.
- AXELROD, D. E., MAJUMDAR, S. K., WIVELL, J. A. AND TERRY, R. W.—Tumorigenicity of Friend murine erythroleukemia cell lines differing in spontaneous differentiation rates.
- MILO, G. E. AND DiPAOLO, J. A.—Presensitization of human cells with extrinsic signals to induced chemical carcinogenesis.
- DAY, N. K., FERNANDES, G. WITKIN, S. S., THOMAS, E. S., SARKAR, N. H. AND GOOD, R. A.—The effect of diet on autogenous immunity to mouse mammary tumor virus in C3H/Bi mice.
- BONMASSAR, A., RICCARDI, C., RIVOCCHI-MERLETTI, P., GOLDIN, A. AND BONMASSAR, E.—Transplantation resistance of drug-treated hybrid or allogeneic mice against murine lymphomas. I. Immunopharmacology studies.
- EVANS, R. AND LAWLER, E. M.—Macrophage content and immunogenicity of C57BL/6J and BALB/cByJ methylcholanthrene-induced sarcomas.
- SANTONI, A., RICCARDI, C., BARLOZZARI, T. AND HERBERMAN, R. B.—Suppression of activity of mouse natural killer (NK) cells by activated macrophages from mice treated with pyran copolymer.

FORTHCOMING PAPERS IN THE JANUARY ISSUE OF THE BRITISH JOURNAL OF CANCER

- ROGERS, G. T., RAWLINS, G. A. AND BAGSHAW, K. D.—Somatic-cell hybrids producing antibodies against CEA.
- ZAUNDERS, J., WERKMEISTER, J., MCCARTHY, W. H. AND HERSEY, P.—Characterization of antigens recognized by natural killer cells in cell-culture supernatants.
- KHARE, A. G., ADVANI, S. H. AND GANGAL, S. G.—*In vitro* generation of lymphocytotoxicity to autochthonous leukaemic cells in chronic myeloid leukaemia.
- GORCZYNSKI, R. M. AND MACRAE, S.—Inhibition of cell proliferation rather than of cell lysis as a measure of immune reactivity in embryo-antigen-challenged rats.
- GORCZYNSKI, R. M. AND MACRAE, S.—Tumour-cell susceptibility to cytotoxic or cytostatic effector cells *in vitro* and the regulation of growth *in vivo*.
- EMBLETON, M. J. AND MIDDLE, J. G.—Immune responses to naturally occurring rat sarcomas.
- DAVIES, G., DUKE, D., GRANT, A. G., KELLY, S. A. AND HERMON-TAYLOR, J.—Growth of human digestive-tumour xenografts in athymic nude rats.
- LEAKE, R. E., LAING, L., CALMAN, K. C., MACBETH, F. R., CRAWFORD, D. AND SMITH, D. C.—Oestrogen-receptor status and endocrine therapy of breast cancer: Responses rates and status stability.
- LEAKE, R. E., LAING, L., MCARDLE, C. AND SMITH, D. C.—Soluble and nuclear oestrogen receptor status in human breast cancer in relation to prognosis.
- PIKE, M. C., HENDERSON, B. E., CASAGRANDE, J. T., ROSARIO, I. AND GRAY, G. E.—Oral contraceptive use and early abortion as risk factors for breast cancer in young women.
- RUSHTON, L. AND ALDERSON, M. R.—A case-control study to investigate the association between exposure to benzene and deaths from leukaemia in oil refinery workers.
- OLIVE, P. L.—Different sensitivity to cytotoxic agents of internal and external cells of spheroids composed of thioguanine resistant and sensitive cells.
- MULCAHY, R. T., SIEMANN, D. W. AND SUTHERLAND, R. M.—*In vivo* response of KHT sarcomas to combination chemotherapy with radiosensitizers and BCNU.
- DELAINI, F., GIAVAZZI, R., DE BELLIS VITTI, G., ALESSANDRI, G., MANTOVANI, A. AND DONATI, M. B.—Tumour sublines with different metastatic capacity induce similar blood-coagulation changes in the host.

Short Communications

- SIKORA, K. AND PHILLIPS, J.—Human monoclonal antibodies to glioma cells.
- CAUCHI, M. N., LIM, D. AND GIDDY, M.—Immunological characterization of endocervical mucus in normal and neoplastic tissue.
- MEYSKENS, F. L. AND SALMON, S. R.—Modulation of clonogenic human melanoma cells by follicle stimulating hormone, melatonin and nerve growth factor.
- SZUMIEL, I., NIEPOKOJCZYCKA, E. AND GODLEWSKA, E.—Growth *in vivo* of L5178Y-R murine leukaemic cells treated *in vitro* with *cis*-dichloro-bis(cyclopentylamine) platinum II.
- WILDRIDGE, M. AND SHERBET, G. V.—Possible surface-protein markers for breast cancer.

The British Journal of Cancer

EDITORIAL BOARD

L. G. Lajtha *Chairman*

P. Alexander	A. P. M. Forrest	A. M. Neville
A. C. Allison	J. F. Fowler	J. Paul
K. D. Bagshawe	B. W. Fox	R. Peto
N. M. Bleehen	D. A. G. Galton	B. R. Pullan
P. Brookes	D. G. Harnden	B. R. Rabin
E. H. Cooper	J. S. Jenkins	F. J. C. Roe
D. Crowther	N. H. Kemp	M. Vessey
A. R. Currie	J. Knowelden	R. A. Weiss
G. A. Currie	N. A. Mitchison	

Executive Editor: M. Moore

Associate Editor: A. J. Bateman

Volume 42, 1980

H. K. LEWIS & Co. Ltd., LONDON

Copyright © 1980
Made and printed in Great Britain for
H. K. Lewis & Co. Ltd., by
Adlard & Son Ltd., Bartholomew Press, Dorking

CONTENTS

No. 1—July

	PAGE
THE WALTER HUBERT LECTURE.—Malignant lymphomas as tumours of the immune system	1
TEMPLE, A. AND ALLISON, A. C.—Cytolysis of fibroblasts by C3a	21
STAAB, H. J., ANDERER, F. A., STUMPF, E. AND FISCHER, R.—Are circulating CEA immune complexes a prognostic marker in patients with carcinoma of the gastrointestinal tract?	26
MITCHESON, H. D., UFF, J., PUSSELL, B. A., BRILL, M. AND CASTRO, J. E.—Immune-complex disease in mice and humans given <i>C. parvum</i>	34
FLEXMAN, J. P. AND SHELLAM, G. R.—Factors affecting stimulation of natural cytotoxicity to a rat lymphoma by <i>Corynebacterium parvum</i>	41
RAMPEN, F.—Malignant melanoma: Sex differences in survival after evidence of distant metastasis	52
LYNCH, H. T., FUSARO, R. M., PESTER, J. AND LYNCH, J. F.—Familial atypical multiple mole melanoma (FAMMM) syndrome: Genetic heterogeneity and malignant melanoma	58
ADAMI, H. O., HANSEN, J., JUNG, B. AND RIMSTEN, Å.—Familiality in breast cancer: A case-control study in a Swedish population	71
SOBUE, M., TAKEUCHI, J., MIURA, K., KAWASE, K., MIZUNO, F. AND SATO, E.—Glycosaminoglycan content and synthesis in gastric carcinoma	78
WILLIAMSON, R. C. N., LYNDON, P. J. AND TUDWAY, A. J. C.—Effects of anticoagulation and ileal resection on the development and spread of experimental intestinal carcinomas	85
SUNTER, J. P., HULL, D. L., APPLETON, D. R. AND WATSON, A. J.—Cell proliferation of colonic neoplasms in dimethylhydrazine-treated rats	95
HARRISON, C. J., CONNELL, J. R., ALLEN, T. D. AND OCKEY, C. H.—Changes in surface morphology associated with ageing and carcinogen treatment of Chinese Hamster lung cells	103
DIALA, E., MITTWOCH, U. AND WILKIE, D.—Antimitochondrial effects of thioacetamide and ethylenethiourea in human and yeast cell cultures	112
TISDALE, M. J.—Effect of methionine deprivation on methylation and synthesis of macromolecules	121
HOOSON, J., HICKS, R. M., GRASSO, P. AND CHOWANIEC, J.—Ortho-toluene sulphonamide and saccharin in the promotion of bladder cancer in the rat	129
LING, C. R. AND FOSTER, M. A.—D-induced changes in NMR relaxation times, water and iron content of rat tissue	148

Short Communications

DISCHE, S., FOWLER, J. F., SAUNDERS, M. I., STRATFORD, M. R. L., ANDERSON, P., MINCHINTON, A. I. AND LEE, M. E.—A drug for improved radiosensitization in radiotherapy	153
VON EYBEN, F., KRABBE, S. AND SKAKKEBAEK, N. E.—Alpha-foetoprotein and human chorionic gonadotropin in men with maldescended testes	156
KNOX, E. G., STEWART, A. AND KNEALE, G.—Childhood leukaemia and mother-foetus infection	158
SAIJO, N., IRIMAJIRI, N., OZAKI, A., SHIMIZU, E. AND NIITANI, H.—Effects of BCG and 1-(4-amino-2-methyl-5-pyrimidinyl)-methyl-3-(2-chloroethyl)-3-nitrosourea hydrochloride (ACNU) on the cytostatic activity of macrophages in normal and tumour-bearing rats	162

No. 1—July—(cont.)

	PAGE
B.A.C.R. Abstracts of members' proffered papers	168
<i>Letters to the Editor</i>	
(i) B. CERCEK	207
(ii) L. CERCEK, J. A. V. PRITCHARD AND W. H. SUTHERLAND	208
(iii) A. W. PREECE, P. A. LIGHT AND P. BALDING	209
MEETING ANNOUNCEMENTS	212

No. 2—August

BIRCH, J. M., MARSDEN, H. B. AND SWINDELL, R.—Incidence of malignant disease in childhood: A 24-year review of the Manchester Children's Tumour Registry data	215
JANOSSY, G., THOMAS, J. A., PIZZOLO, G., GRANGER, S. M., McLAUGHLIN, J., HABESHAW, J. A., STANSFIELD, A. G. AND SLOANE, J.—Immuno-histological diagnosis of lymphoproliferative diseased by selected combinations of antisera and monoclonal antibodies	224
KNIGHT, R. A. AND FITZHARRIS, P.—Separation of spontaneous-killing effector populations by target preference	243
ECCLES, S. A., HECKFORD, S. E. AND ALEXANDER, P.—Effect of cyclosporin A on the growth and spontaneous metastasis of syngeneic animal tumours	252
WOOLLEY, D. E. AND GRAFTON, C. A.—Collagenase immunolocalization studies of cutaneous secondary melanomas	260
DICKINSON, J. P., McDERMOTT, J. R., KARIN SMITH, J. AND CASPARY, E. A.—A common tumour-specific antigen: III. Preparation of small fragments incorporating the cell-sensitizing determinant	266
PIOCH, Y., GERBER, M. AND SERROU, B.—Significance of cytotoxic lymphocytes after various immunizing procedures in a virus-induced non-producer syngeneic system: Correlation between <i>in vitro</i> and <i>in vivo</i> lytic activity	275
ASKERGREN, J., BJÖRKHOLM, M., HOLM, G., JOHANSSON, B., MELLSTEDT, H., SUNDBLAD, R. AND SÖDERBERG, G.—Prognostic effect of early diagnostic splenectomy in Hodgkin's Disease: A randomized trial	284
SZUMIEL, I. AND NIAS, A. H. W.—Isobologram analysis of the combined effects of anti-tumour platinum complexes and ionizing radiation on mammalian cells	292
TWENTYMAN, P. R.—Response to chemotherapy of EMT6 spheroids as measured by growth delay and cell survival	297
WHUR, P., MAGUDIA, M., BOSTON, J., LOCKWOOD, J. AND WILLIAMS, D. C.—Plasminogen activator in cultured Lewis lung carcinoma cells measured by chromogenic substrate assay	305
RØMER, F. K. AND EMMERSTEN, K.—Serum angiotensin-converting enzyme in malignant lymphomas, leukaemia and multiple myeloma	314
YIN, S-J., KAO, M-C., AND LEE, S-C.—Sequential biochemical and histological changes in rats treated with aflatoxin B ₁	319
MILLER, W. R.—Effects of serial passage on the endocrine response and steroid metabolism of a rat mammary carcinoma	326
RAZ, A. AND HART, I. R.—Murine melanoma: A model for intracranial metastasis	331

Short Communications

BLOT, W. J., DRAPER, G., KINLEN, L. AND KINNIER WILSON, M.—Childhood cancer in relation to prenatal exposure to chickenpox	342
--	-----

	PAGE
BURTIN, P. AND CHAVANEL, G.—Leucocytes from patients with colon carcinoma or non-cancerous intestinal disease react differently to foetal colon extract in leucocyte migration inhibition test	345
DODD, N. J. F. AND SWARTZ, H. M.—ESR signals of lyophilized tissue	349
BOOK REVIEWS	352
MEETING ANNOUNCEMENT	356

No. 3—September

HARRIS, R. W. C., BRINTON, L. A., COWDELL, R. H., SKEGG, D. C. G., SMITH, P. G., VESSEY, M. P. AND DOLL, R.—Characteristics of women with dysplasia or carcinoma <i>in situ</i> of the cervix uteri	359
GIBSON, J. B., WU, P.-C., HO, J. C. I. AND LAUDER, I. J.—Hepatitis B surface antigen, hepatocellular carcinoma and cirrhosis in Hong Kong: A necropsy study: 1963–1976	370
NEWLANDS, E. S., BEGENT, R. H. J., KAYE, S. B., RUSTIN, G. J. S. AND BAGSHAW, K. D.—Chemotherapy of advanced malignant teratomas	378
JAMES, S. E., DEAN, C. J. AND ALEXANDER, P.—Failure to detect autologous antibodies in the remission sera of patients with AMO: Complications introduced by the presence of rheumatoid factor	385
SLOANE, J. P., ORMEROD, M. G., IMRIE, S. F. AND COOMBES, R. C.—The use of antisera to epithelial membrane antigen in detecting micrometastases in histological sections	392
ROBERTS, G. P.—Surface antigens on human melanoma cells studied with heterologous antisera	399
DENHAM, S., HOOTON, J. W. L., BARFOOT, R. K., ALEXANDER, P., MAYOL, R. AND WRATHMELL, A. B.—Mechanism by which antibodies to non-AgB antigens mediate rejection of rat leukaemia cells	408
MATTHEWS, N., RYLEY, H. C. AND NEALE, M. L.—Tumour-necrosis factor from the rabbit. IV. Purification and chemical characterization	416
ATTALLAH, A. M., FLEISHER, T., KHALIL, R., NOGUCHI, P. D. AND URRITIA-SHAW, A.—Proliferative and functional aspects of interferon-treated human normal and neoplastic T and B cells	423
IZAGUIRRE, C. A., MINDEN, M. D., HOWATSON, A. F. AND MCCULLOCH, E. A.—Colony formation by normal and malignant human B-lymphocytes	430
SELBY, P. J., COURTENAY, V. D., McELWAIN, T. J., PECKHAM, M. J. AND STEEL, G. G.—Colony growth and clonogenic cell survival in human melanoma xenografts treated with chemotherapy	438
DYSON, J. E. D., WATKINSON, A. P., JONES, W. G., CORBETT, P. J. AND JOSLIN, C. A. F.—Lymphocyte supernatants and the electrophoretic mobility of erythrocytes: Further experience in cancer diagnosis	448
SEYBERTH, H. W., BONDSCH, G., MÜLLER, H., MINNE, H. W., ERLÉNMAIER, T., STREIN, K., IMBECK, H. AND MRONGOVIVUS, R.—Prostaglandin E production and hypercalcaemia in rats bearing the Walker carcinosarcoma	455
GIAVAZZI, R., ALESSANDRI, G., SPREAFICO, F., GARATTINI, S. AND MANTOVANI, A.—Metastasing capacity of tumour cells from spontaneous metastases of transplanted murine tumours	462

	PAGE
<i>Short Communications</i>	
SIMPSON, W., SIMMONS, D. J. C. AND DAVIES, A. J. S.—Effect of <i>Pasteurella pneumotropica</i> on the growth of transplanted Walker sarcoma cells	473
SOBUE, M., MIURA, K., KATAOKA, K., TSUJI, K. AND TAKEUCHI, J.—Glycosaminoglycansynthetic activity of neoplastic and non-neoplastic adipose tissues	477
DAWSON, J. R. AND KUTTEH, W. H.—Cross-reactivity of normal gastric tissue components with ovarian tumour-associated antigens	481
MILLAR, J. L., CLUTTERBUCK R. D. AND SMITH, I. E.—Improving the therapeutic index of two alkylating agents	485
BOOK REVIEWS	488
ANNOUNCEMENT	491
MEETING ANNOUNCEMENTS	492

No. 4—October

HAMBLIN, T. J., ABDUL-AHAD, A. K., GORDON, J., STEVENSON, F. K. AND STEVENSON, G. T.—Preliminary experience in treating lymphocyte leukaemia with antibody to immunoglobulin idiotypes on the cell surfaces	495
MACSWEEN, J. M. AND EASTWOOD, S. L.—Immunoglobulins associated with human tumours <i>in vivo</i> : IgG concentrations in eluates of colonic carcinomas	503
NORFOLK, D., CHILD, J. A., COOPER, E. H., KERRUISH, S. AND MILFORD WARD, A.—Serum β 2-microglobulin in myelomatosis: Potential value in stratification and monitoring	510
MATZKU, S., ZÖLLER, M., IKINGER, U. AND PRICE, M. R.—Organ-related and malignancy-associated reactivity of cancer patients' leucocytes: A leucocyte migration study with tumour and foetal extracts	516
BAILEY, M. J., GAZET, J.-C. AND PECKHAM, M. J.—Human breast-cancer xenografts in immune-suppressed mice	524
BAILEY, M. J., GAZET, J.-C., SMITH, I. E. AND STEEL, G. G.—Chemotherapy of human breast-carcinoma xenografts	530
VAN BOGAERT, L. J., DE MUYLDER, C., MALDAGUE, P. AND MAISIN, H.—Prognostic implications of mean nuclear diameter in breast cancer	537
HILGERS, J., SONNENBERG, A. AND NUSSE, R.—Antigenic modulation of mammary tumour virus envelope antigen on GR thymic lymphoma cells in relation to expression of H-2, TL cell-surface antigens and Thyl	542
GABIZON, A. AND TRAININ, N.—Enhancement of growth of a radiation-induced lymphoma by T cells from normal mice	551
KEARNEY, R. AND HARROP, P.—Potentiation of tumour growth by endotoxin in serum from syngeneic tumour-bearing mice	559
SMITH, E., STRATFORD, I. J. AND ADAMS, G. E.—Cytotoxicity of Adriamycin on aerobic and hypoxic Chinese hamster V79 cells <i>in vitro</i>	568
YUHAS, J. M., SPELLMAN, J. M., JORDAN, S. W., PARDINI, M. C., AFZAL, S. M. J. AND CULO, F.—Treatment of tumours with the combination of WR-2721 and cis-dichlorodiammineplatinum (II) or cyclophosphamide	574
ROWLEY, R., HOPKINS, H. A., BETSILL, W. L., JR., RITENOUR, E. R. AND LOONEY, W. B.—Response and recovery kinetics of a solid tumour after irradiation	586
BANNIKOV, G. A., SAINT VINCENT, L. AND MONTESANO, R.—Surface proteins in normal and transformed rat liver epithelial cells in culture	596

No. 4—October—(cont.)

	PAGE
<i>Short Communications</i>	
SHETH, N. A., ADIL, M. A., SHINDE, S. R. AND SHETH, A. R.—Paraendocrine behaviour of tumours of the gastrointestinal tract with reference to human placental lactogen	610
PINKERTON, C. R., WELSHMAN, S. G., DEMPSEY, S. I., BRIDGES, J. M. AND GLASGOW, J. F. T.—Absorption of methotrexate under standardized conditions in children with acute lymphoblastic leukaemia	613
GRIEVE, R. J., WOODS, K. L., MANN, P. R., SMITH, S. C. H., WILSON, G. D. AND HOWELL, A.—Effect of sodium butyrate on synthesis of specific proteins by human breast-carcinoma cells	616
SARACCI, R. AND REPETTO, F.—Breast cancer mortality trends in Italy	620
NOMURA, T., HATA, S., ENOMOTO, T., TANAKA, H. AND SHIBATA, K.—Inhibiting effects of antipain on urethane-induced lung neoplasia in mice	624
BOOK REVIEWS	627
MEETING ANNOUNCEMENTS	631

No. 5—November

ELWOOD, J. M. AND GODOLPHIN, W.—Oestrogen receptors in breast tumours: Associations with age, menopausal status and epidemiological and clinical features in 735 patients	635
MACFARLANE, I. A., BARNES, D., HOWAT, J. M. T., SWINDELL, R., DURNING, P. BEARDWELL, C. G., BUSH, H. AND SELLWOOD, R. A.—Serum glycoprotein hormone α subunit, hormone receptors and disease stage in patients with breast cancer	645
ADAMI, H.-O., HANSEN, J., JUNG, B. AND RIMSTEN, Å. J.—Age at first birth, parity and risk of breast cancer in a Swedish population	651
DEWAR, A. E., KRAJEWSKI, A. S. AND MURRAY, J.—T-cell lymphoma in children and young adults: Clinical, immunological and pathological features.	659
SHEPHERD, R., KUSNIERCZYK, H., JONES, M AND HARRAP, K. R.—Criteria for the selection of second-generation platinum compounds	668
GRDINA, D. J., SIGDESTAD, C. P. AND PETERS, L. J.—Cytotoxic effect <i>in vivo</i> of selected chemotherapeutic agents on synchronized murine fibrosarcoma cells	677
ROBERTS, P. B. AND MILLAR, B. C.—Enhanced killing of mammalian cells by radiation combined with m-AMSA	684
MOORE, J. V. AND BROADBENT, D. A.—Survival of intestinal crypts after treatment by Adriamycin alone or with radiation	692
HACKER, M., ROBERTS, D. AND JACKSON, C. W.—Effect of VM-26 on the haematological responses of mice to L1210 leukaemia	697
EL KAPPANY, H., CHOPRA, C., NIGAM, V. N., BRAILOVSKY, C. A. AND ELHILALI, M.—The antitumour activity of maltose tetrapalmitate compared with other immunoadjuvants, and its effectiveness after tumour surgery	703
STEVEN, F. S., GRIFFIN, M. M., ITZHAKI, S. AND AL-HABIB, A.—A trypsin-like neutral protease on Ehrlich ascites cell surfaces: Its role in the activation of tumour-cell zymogen of collagenase	712
VAILLIER, D. AND VAILLIER, J.—Factors inducing a loss of net negative surface charge on spleen cells of mice grafted with a slow-growing tumour	722
HICKS, R. M., JAMES, C. AND WEBBE, G.—Effect of <i>Schistosoma haematobium</i> and N-butyl-N-(4-hydroxybutyl)nitrosamine on the development of urothelial neoplasia in the baboon	730

No. 5—November—(cont.)

	PAGE
ROSCOE, J. P., HINCE, T. A., CLAISSE, P. J. AND WINSLOW, D. P.—Effect of 12-0-tetradecanoylphorbol-13-acetate on two characteristics of transformation acquired sequentially by ENU-exposed rat brain cells	756
SUZUKI, N., WILLIAMS, M., HUNTER, N. M. AND WITHERS, H. R.—Malignant properties and DNA content of daughter clones from a mouse fibrosarcoma: Differentiation between malignant properties	765
REZNIK, G., REZNIK-SCHÜLLER, H., WARD, J. M. AND STINSON, S. F.—Morphology of nasal-cavity tumours in rats after chronic inhalation of 1,2 dibromo-3-chloropropane	772
<i>Short Communications</i>	
PIAZZA, E., CORTELLAZZO, S., OTTOLENGHI, L., POGGI, A., BARBUI, T. AND DONATI, M. B.—Heparin does not modify plasma daunomycin disappearance in acute leukaemic patients	782
SOBIN, L. H. AND SHERIF, M.—Relation between male breast cancer and prostate cancer	787
SCHATTENKERK, M. E., LI, A. K. C., JEPSSON, B. W., EGGINK, W. F., JAMIESON, C. G., ROSS, J. S. AND MALT, R. A.—Cholecystectomy has no influence on frequency of chemically induced colon cancer in mice	791
KUMAR, R. K. AND LYKKE, A. W. J.—Granulocyte contamination of separated blood mono-nuclear cells from spontaneously tumourous mice	794
BROWN, D. G., WAGNER, J. C. AND WAGNER, M. M. F.—Failure to demonstrate tumour-associated transplantation antigens on asbestos-induced mesotheliomas in rats.	797
BOOK REVIEWS	802
MEETING ANNOUNCEMENT	809

No. 6—December

MRC WORKING PARTY ON LEUKAEMIA IN ADULTS.—Report on the second myelomatosis trial after five years of follow-up	813
MRC WORKING PARTY ON LEUKAEMIA IN ADULTS.—Treatment comparisons in the third MRC myelomatosis trial	823
MRC WORKING PARTY ON LEUKAEMIA IN ADULTS.—Prognostic features in the third MRC myelomatosis trial	831
PALMER, M. K., HANN, I. M., JONES, P. M. AND EVANS, D. I. K.—A score at diagnosis for predicting length of remission in childhood acute lymphoblastic leukaemia	841
GERMA-LLUCH, J. R., BEGENT, R. H. J. AND BAGSHAW, K. D.—Tumour-marker levels and prognosis in malignant teratoma of the testis	850
MURRAY, W. R., BLACKWOOD, A., CALMAN, K. C. AND MACKAY, C.—Faecal bile acids and clostridia in patients with breast cancer	856
TANNOCK, I. F.— <i>In vivo</i> interaction of anti-cancer drugs with Misonidazole or Metronidazole: Methotrexate, 5-Fluorouracil and Adriamycin	861
TANNOCK, I. F.— <i>In vivo</i> interactions of anti-cancer drugs with Misonidazole or Metronidazole: Cyclophosphamide and BCNU	871
MARTIN, W. M. C. AND McNALLY, N. J.—Cytotoxicity of Adriamycin to tumour cells <i>in vivo</i> and <i>in vitro</i>	881
ROSE, G. P., DEWAR, A. J. AND STRATFORD, I. J.—A biochemical method for assessing the neurotoxic effects of Misonidazole in the rat	890

No. 6—December—(cont.)

	PAGE
BRADFIELD, J. W. B. WHITMARSH-EVERISS, T., PALMER, D. B., PAYNE, R. AND SYMES, M. O.—Hyperphagocytosis and the effect of lipopolysaccharide injection in tumour-bearing mice	900
TSUBOYAMA, A., TAKAKU, F., SAKAMOTO, S., KANO, Y., ARIGA, T. AND MIYATAKE, T.—Characterization of gangliosides in human leucocytes	908
GUY, D., LATNER, A. L., SHERBET, G. V. AND TURNER, G. A.—Surface properties of cells isolated from non-metastasizing and metastasizing hamster lympho-sarcomas	915
TOTH, B., NAGEL, D. AND PATIL, K.—Tumorigenesis by N- <i>n</i> -propyl-N-formyl-hydrazine in mice	922
<i>Short Communications</i>	
CHOW, Y. M. AND GUTMANN, H. R.—Hydrolysis of uridine diphosphate-N-acetyl-D-glucosamine by normal and malignant cells of the rat	929
BUICK, R. N. AND FRY, S. E.—A comparison of human tumour-cell clonogenicity in methylcellulose and agar culture	933
WIBE, E.—Resistance to vincristine of human cells grown as multicellular spheroids	937
PROCEEDINGS OF THE 15th PATERSON SYMPOSIUM.—Analysis of haemopoietic stem-cell behaviour	942
<i>Letters to the Editor</i>	
(i) CERCEK, L. AND CERCEK, B.	947
(ii) BAGSHAW, K. D., PENTYCROSS, C. R. AND MITCHELL, H.	949
BOOK REVIEWS	950
MEETING ANNOUNCEMENTS	952

AUTHOR INDEX

(BR) = Book review (L) = Letter

- ABDUL-AHAD, A. K., 495
 ADAMI, H.-O., 71, 651
 ADAMS, G. E., 568
 ADIL, M. A., 610
 AFZAL, S. M. J., 574
 AHERNE, W., 193
 AKBAR, A., 176
 ALESSANDRI, G., 462
 ALEXANDER, P., 186, 252, 385, 408
 AL-HABIB, A., 712
 ALLEN, T. D., 103
 ALLISON, A. C., 21
 AL SAM, S., 205
 ANDERER, F. A., 26
 ANDERSON, P., 153
 APPLETON, D. R., 95
 ARIGA, T., 908
 ASKERGREN, J., 284
 ATTALLAH, A. M., 423
 AXON, A. T. R., 198

 BAGSHAW, K. D., 197(2), 378, 850, 949 (L)
 BAILEY, E., 193
 BAILEY, M. J., 173, 524, 530
 BALDING, P., 209 (L)
 BALDWIN, R. W., 174, 175, 176, 181, 182
 BALLARD, C. M., 175
 BANNIKOV, G. A., 596
 BARBUI, T., 782
 BARFOOT, R. K., 408
 BARNES, D., 199, 645
 BARRIE, S. E., 202
 BASLEY, W. A., 175
 BAXTER, A., 187, 203
 BEARDWELL, C. G., 199, 645
 BEGENT, R. H. J., 197(2), 204, 378, 850
 BELL, J., 198
 BELL, R., 190, 191
 BERARD, C. W., 1
 BETSILL, W. R., 586
 BIBBY, M. C., 171, 202
 BIRCH, J. M., 215
 BJÖRKHOLM, M., 284
 BLACKLEDGE, G., 185, 188, 488 (BR)
 BLACKWOOD, A., 856
 BLEEHEN, N. M., 181, 802 (BR)
 BLOT, W. J., 342
 BOGAERT, L. J. VAN, See *Van Bogaert, L. J.*
 BONSCH, G., 455
 BOSTON, J., 187, 305
 BOWEN, J. G., 174, 176
 BOYLE, P., 196(2), 201
 BRADFELD, J. W. B., 900

 BRAILOVSKY, C. A., 703
 BRIDGES, J. M., 613
 BRILL, M., 34
 BRINTON, L. A., 359
 BROADBENT, D. A., 692
 BROOKES, P., 806 (BR)
 BROWN, D. G., 797
 BUICK, R. N., 933
 BURTIN, P., 345
 BUSH, H., 185, 199, 645
 BYERS, V. S., 175, 182

 CALDERWOOD, S. K., 181
 CALMAN, A. L. H., 203
 CALMAN, K. C., 187, 192, 193, 198, 199, 203, 204
 856
 CALVERT, A. H., 172 (2)
 CARLYLE, J. E., 199
 CASPARY, E. A., 266
 CASTRO, J. E., 34
 CATTO-SMITH, A. G., 190
 CERCEK, B., 207 (L), 947 (L)
 CERCEK, L., 208 (L), 947 (L)
 CHAMBERS, S. H., 184 (2)
 CHAN, C. W., 183
 CHAVANEL, G., 345
 CHESTER, K. A., 204
 CHILD, J. A., 190, 510
 CHIPMAN, J. K., 200
 CHOPRA, C., 703
 CHOW, Y. M., 929
 CHOWANIEC, J., 129, 193, 201
 CLAISSE, P. J., 756
 CLARKE, S. A., 169
 CLEMENTS, J. B., 195
 CLINK, H. M., 169, 170
 CLUTTERBUCK, R. D., 485
 COCHRAN, A. J., 183
 COLLINS, M. M., 173
 CONNELL, J. R., 103
 COOMBS, R. C., 183 (2), 194, 199, 392
 COOPER, A. F., 200
 COOPER, E. H., 190, 198, 510
 COOPER, K. M., 182
 CORBETT, P. J., 448
 CORTELLAZZO, S., 782
 COSSMAN, J., 1
 COURTENAY, V. D., 438
 COWDELL, R. H., 359
 CRAIG, A. W., 627 (BR)
 CREIGHTON, A. M., 186
 CROWTHER, D., 185, 188 (2)
 CUCKLE, H., 813

- CULO, F., 574
 CUSHING, S., 192
 CUZICK, J., 823, 831

 DADY, P. J., 173, 174
 DAHL, E. P., 195
 DAVIES, A. J. S., 473
 DAVIES, M. D. J., 177
 DAWSON, J. R., 481
 DEAN, C. J., 385
 DEARNALEY, D. P., 199
 DEMPSEY, S. I., 613
 DE MUYLDER, C., 537
 DENHAM, S., 408
 DEWAR, A. E., 659
 DEWAR, A. J., 890
 DIALA, E., 112
 DICKINSON, J. P., 175, 266
 DICKSON, J. A., 181
 DISCHE, S., 153
 DODD, N. J. F., 349
 DODGE, O. G., 628 (BR)
 DOLL, R., 359
 DONATI, M. B., 782
 DOUBLE, J. A., 171, 202
 DRAPER, G., 342
 DURHAM, J. P., 203
 DURNING, P., 199, 645
 DYSON, J. E. D., 448

 EASTWOOD, S. L., 503
 EAVES, G., 198
 ECCLES, S. A., 186, 252
 EDGAR, D. H., 186
 EGGINK, W. F., 791
 EGLIN, R. P., 195
 ELHILALI, M., 703
 EL KAPPANY, H., 703
 ELWOOD, J. M., 635
 EMBLETON, M. J., 179
 EMMERSTEN, K., 314
 ENOMOTO, T., 624
 ERLNMAIER, T., 455
 EVANS, D. I. K., 841
 EVERISS, T. WHITMARSH, See *Whitmarsh-Everiss, T.*
 EYBEN, F. VON, See *Von Eyben, F.*

 FARMER, P. B., 193
 FARRELL, A., 203
 FISCHER, R., 26
 FITZHARRIS, P., 243
 FLANNERY, G. R., 179
 FLATMAN, G. E., 196
 FLECK, A., 198
 FLEISHER, T., 423
 FLETCHER, J., 205
 FLEXMAN, J. P., 41
 FORD, C. H. J., 178 (2), 179
 FORD, J. M., 190, 191
 FORD, W. L., 188
 FOSTER, M. A., 148

 FOWLER, J. F., 153
 FOX, B. W., 950 (BR)
 FOX, H., 353 (BR)
 FOX, M., 950 (BR)
 FROST, G. S., 200
 FRY, S. E., 933
 FUSARO, R. M., 58

 GABIZON, A., 551
 GALLAGHER, J., 185, 353 (BR)
 GALLAGHER, P., 177
 GALTON, D. A. G., 813, 823, 831
 GARATTINI, S., 462
 GAZET, J.-C., 524, 530
 GEARY, C. G., 489 (BR), 805 (BR), 807 (BR)
 GERBER, M., 275
 GERMA-LLUCH, J. R., 197, 850
 GESCHER, A., 169
 GIAVAZZI, R., 462
 GIBSON, C., 188
 GIBSON, J. B., 370
 GILHAM, M., 813
 GILLIS, C. R., 196 (3), 201
 GLASGOW, J. F. T., 613
 GLENNIE, J. M., 196
 GODOLPHIN, W., 635
 GORDON, J., 495
 GORDON, S., 198
 GOWLAND, E., 629 (BR)
 GRAFTON, C. A., 260
 GRAHAME-SMITH, D. G., 172
 GRANGER, S. M., 224
 GRASSO, P., 129
 GRDINA, D. J., 677
 GREENE, D., 803 (BR), 806 (BR)
 GRIEVE, R. J., 616
 GRIFFIN, M. M., 712
 GRIMES, A. S., 174
 GUSTERSON, B. A., 194
 GUTMANN, H. R., 929
 GUY, D., 915
 GWYNNE, J., 194

 HABESHAW, J. A., 224
 HABESHAW, T., 199
 HACKER, M., 697
 HAMBLIN, T. J., 495
 HANCOCK, B. W., 205
 HANN, I. M., 841
 HANNANT, D., 174, 176
 HANSEN, J., 71, 651
 HARRAP, K. R., 169 (2), 170, 171, 172 (2), 173, 174, 202, 668
 HARRIS, A. L., 172
 HARRIS, R. W. C., 359
 HARRISON, C. J., 103
 HARROP, P., 559
 HART, I. R., 331
 HARVEY, A. E., 193, 201
 HATA, S., 624
 HAWKEY, C., 194
 HECKFORD, S. E., 186, 252

- HEDLEY, D. W., 190
HEWITT, H. B., 627 (BR)
HICKMAN, J. A., 170
HICKS, R. M., 129, 193, 194, 201, 730
HILGERS, J., 542
HILTON, A. M., 182
HINCE, T. A., 756
HIROM, P. C., 200
HO, J. C. I., 370
HOLE, D. J., 196, 201
HOLM, G., 284
HOOSON, J., 129
HOOTON, J. W. L., 408
HOPKINS, H. A., 586
HOWAT, J. M. T., 199, 645
HOWATSON, A. F., 430
HOWELL, A., 201, 616
HUGHSON, A. V. M., 200
HULL, D. L., 95
HUMPHREYS, J., 183
HUNTER, N. M., 765
HUNTER, R., 629 (BR)
- IKINGER, U., 516
IMBECK, H., 455
IMRIE, S. F., 183, 392
IRIMAJIRI, N., 162
IRVING, M., 354 (BR)
ITZHAKI, S., 712
IZAGUIRRE, C. A., 430
- JACKMAN, A. L., 172 (2)
JACKSON, C. W., 697
JAFFE, E. S., 1
JAMES, C., 730
JAMES, S., 193
JAMES, S. E., 385
JAMIESON, C. G., 791
JANOSSY, G., 224
JENEY, A., 171, 202
JEPPSSON, B. W., 791
JOHANSSON, B., 284
JOHNSON, J. R., 179
JOHNSON, P. M., 204
JONES, D. B., 176, 205, 353 (BR)
JONES, M., 169, 668
JONES, P. M., 841
JONES, T. R., 172 (2)
JONES, W. G., 448
JORDAN, S. W., 574
JOSLIN, C. A. F., 448
JUNG, B., 71, 651
- KADHIM, S., 205
KANO, Y., 908
KAO, M.-C., 319
KATAOKA, K., 477
KAWASE, K., 78
KAYE, S. B., 197, 378
KEARNEY, R., 559
KENNEDY, R. D., 183
KERRUISH, S., 190, 510
- KHALIL, R., 423
KIMBER, I., 807 (BR)
KINLEN, L., 342
KINNIER WILSON, M., See *Wilson M. K.*
KNEALE, G., 158
KNIGHT, R. A., 243
KNOX, E. G., 158
KOLAR, G. F., 170
KRABBE, S., 156
KRAJEWSKI, A. S., 659
KUMAR, R. K., 794
KUSNIERCZYK, H., 668
KUTTEH, W. H., 481
- LAMBERT, M., 185
LATNER, A. L., 915
LAUDER, I. J., 370
LAWRENCE, J. R., 192
LEE, M. E., 153
LEE, S.-C., 319
LI, A. K. C., 791
LIGHT, P. A., 209 (L)
LING, C. R., 148
LISTER, T. A., 190, 191
LLUCH, J. R. GERMA, See *Germa-Lluch, J. R.*
LOCKWOOD, J., 187, 305
LOONEY, W. B., 586
LORD, B. I., 942
LUCAS, S. B., 192
LYKKE, A. W. J., 794
LYNCH, H. T., 58
LYNCH, J. F., 58
LYNDON, P. J., 85
- MCARDLE, C. S., 200
MACBETH, F. R., 199
MCBRIDE, W. H., 177
McCULLOCH, E. A., 430
McDERMOTT, J. R., 266
McELWAIN, T. J., 438
MACFARLANE, I. A., 199, 645
MCGHEE, K. G., 170
MCHARDY, J., 196
MCHATTIE, I., 201
MACINTYRE, W. M., 196
MACKAY, C., 856
MACKIE, R., 183
McLAUGHLIN, J., 224
MACLEAN, A. B., 195
MACNAB, J. C. M., 195
MCNAIR, A. W., 204
McNALLY, N. J., 881
MACSWEEN, J. M., 503
McVIE, J. G., 192, 193
MAGUDIA, M., 187, 305
MAISIN, H., 537
MALCOLM, A. J., 187, 196
MALDAGUE, P., 537
MALPAS, J. S., 190, 191
MALT, R. A., 195, 791
MANN, P. R., 616
MANTOVANI, A., 462

- MARGISON, J., 192
 MARSDEN, H. B., 215
 MARTIN, W. M. C., 881
 MASSEY, E. D., 193, 201
 MATTHEWS, N., 416
 MATZKU, S., 516
 MAYOL, R., 408
 MEDICAL RESEARCH COUNCIL, 813, 823, 831
 MELLSTEDT, H., 284
 MIDDLE, J. G., 179
 MILLAR, B. C., 684
 MILLAR, J. L., 485
 MILLBURN, P., 200
 MILLER, W. R., 326
 MINCHINTON, A. I., 153
 MINDEN, M. D., 430
 MINNE, H. W., 455
 MITCHELL, H., 949 (L)
 MITCHESON, H. D., 34
 MITCHLEY, B. C. V., 169
 MITTWOCH, U., 112
 MIURA, K., 78, 477
 MIYATAKE, T., 908
 MIZUNO, F., 78
 MONTESANO, R., 596
 MOORE, J. V., 692
 MOORE, K., 177
 MOORE, M., 177, 182, 352 (BR), 807 (BR)
 MORGAN, J. E., 181
 MORRIS, A., 185
 MORRISON, J. M., 201
 MORRISON, L., 183
 MRONGOVIVUS, R., 455
 MUGHAL, M., 202
 MUINDI, J. F. R., 169
 MÜLLER, H., 455
 MURRAY, J., 659
 MURRAY, W. R., 856
 MUYLDER, C. DE, See *De Muylder, C.*

 NAGEL, D., 922
 NASH, J. R. G., 186
 NEALE, M. L., 416
 NEVILLE, A. M., 183 (2)
 NEWELL, D. R., 169
 NEWLANDS, E. S., 197, 378
 NEWMAN, C. E., 178 (2), 179
 NIAS, A. H. W., 292, 628 (BR)
 NIGAM, V. N., 703
 NITANI, H., 162
 NOGUCHI, P. D., 423
 NOMURA, T., 624
 NORFOLK, D., 190, 510
 NUSSE, R., 542

 OCKEY, C. H., 103
 OLIVER, R. J. D., 802 (BR)
 O'QUIGLEY, J., 198
 ORMEROD, M. G., 183 (2), 392
 OTTOLENGHI, L., 782
 OWENS, L., 181
 OZAKI, A., 162

 PAHOR, A. L., 189
 PAINE, R. M., 170
 PALMER, D. B., 900
 PALMER, M. K., 841
 PARDINI, M. C., 574
 PARROTT, D. M. V., 177
 PARTON, H., 203
 PATEL, S., 199
 PATIL, K., 922
 PAUL, E., 813
 PAYNE, R., 900
 PAYNE, S. V., 176, 205
 PECKHAM, M. J., 438, 524
 PENTYCROSS, C. R., 949 (L)
 PESTER, J., 58
 PETERS, L. J., 677
 PETRO, R., 813, 823, 831
 PHILIP, M. A., 205
 PIAZZA, E., 782
 PIMM, M. V., 175, 354 (BR), 489 (BR)
 PINKERTON, C. R., 613
 PIOCH, Y., 275
 PIZZOLO, G., 224
 POGGI, A., 782
 POINTON, R. C. S., 352 (BR), 803 (BR)
 POTTER, C. W., 205
 POWELL, J., 189
 POWLES, T. J., 199
 PREECE, A. W., 209 (L)
 PRICE, J. E., 186, 187
 PRICE, M. R., 174, 176, 516
 PRITCHARD, J. A. V., 208 (L)
 PUSSELL, B. A., 34

 RAINES, G., 198
 RAMPEN, F., 52
 RASHID, S., 198
 RAYMONT, T., 169
 RAZ, A., 331
 READ, G., 189
 REES, R. C., 205
 REPETTO, F., 620
 REZNIK, G., 772
 REZNIK-SCHÜLLER, H., 772
 RIMSTEN, Å. J., 71, 651
 RITENOUR, E. R., 586
 ROBERTS, D., 697
 ROBERTS, G. P., 399
 ROBERTS, P. B., 684
 ROBERTSON, A. G., 196
 ROBINS, R. A., 181, 182
 ROHATINER, A., 191
 RÖMER, F. K., 314
 ROSCOE, J. P., 756
 ROSE, G. P., 890
 ROSS, J. S., 791
 ROWLEY, R., 586
 RUSSELL, A. R., 200
 RUSTIN, G. J. S., 197, 378
 RUTTY, C. J., 169
 RYLEY, H. C., 416

- SAIJO, N., 162
 SAINT VINCENT, L., 596
 SAKAMOTO, S., 908
 SALTER, A. J., 178
 SANDISON, A. T., 196
 SARACCI, R., 620
 SATO, E., 78
 SAUNDERS, M. I., 153
 SCARFFE, J. H., 802 (BR), 805 (BR)
 SCHATTENKERK, M. E., 791
 SCHOFIELD, P. F., 177
 SCHOFIELD, R., 942
 SECKER-WALKER, L. M., 191
 SEGAL-EIRAS, A., 181, 182
 SELBY, P. J., 438
 SELLWOOD, R. A., 645
 SERROU, B., 275
 SEYBERTH, H. W., 455
 SHAH, L. C. P., 204
 SHALET, S. M., 488 (BR)
 SHARP, F., 195
 SHAW, A. URRITIA, See *Urritia-Shaw, A*
 SHAW, E. J., 190
 SHAW, M. T., 198
 SHELLAM, G. R., 41
 SHEPHERD, R., 169, 171, 668
 SHERBET, G. V., 915
 SHERIF, M., 787
 SHETH, A. R., 610
 SHETH, N. A., 610
 SHIBATA, K., 624
 SHIMIZU, E., 162
 SHINDE, S. R., 610
 SIEFF, C. A., 191
 SIGDESTAD, C. P., 677
 SIMMONDS, R. J., 170
 SIMMONS, D. J. C., 473
 SIMON, L., 194
 SIMPSON, W., 473
 SKAKKEBAEK, N. E., 156
 SKEGG, D. C. G., 359
 SLEVIN, M. L., 190
 SLOANE, J. P., 183, 224, 392
 SMITH, A. L. CATTO, See *Catto-Smith, A. L.*
 SMITH, D. C., 200
 SMITH, E., 568
 SMITH, I. E., 169, 173, 185, 485, 530
 SMITH, J. K., 266
 SMITH, P. G., 359
 SMITH, S. C. H., 616
 SMITH, S. R., 201
 SOBIN, L. H., 787
 SOBUE, M., 78, 477
 SÖDERBERG, G., 284
 SONNENBERG, A., 542
 SPARROW, S., 169
 SPELLMAN, J. M., 574
 SPREAFICO, F., 462
 STAAB, H. J., 26
 STANDEN, G., 205
 STANSFELD, A. G., 224
 STEEL, G. G., 173, 438, 530
 STEELE, K., 183
 STEELE, W. H., 192
 STEVEN, F. S., 712
 STEVEN, M. F. G., 179
 STEVENSON, F. K., 495
 STEVENSON, G. T., 495
 STEWART, A., 158
 STEWART, A. L., 192
 STINSON, S. F., 772
 STRATFORD, I. J., 568, 890
 STRATFORD, M. R. L., 153
 STREIN, K., 455
 STUART, J. F. B., 192, 193
 STUMPF, E., 26
 SUNDBLAD, R., 284
 SUNTER, J. P., 95
 SUTHERLAND, W. H., 208 (L)
 SUZUKI, N., 765
 SWARTZ, H. M., 349
 SWINDELL, R., 215, 645
 SYMES, M. O., 175, 900
 SZUMIEL, I., 292
 TAKAKU, F., 908
 TAKEUCHI, J., 78, 477
 TANAKA, H., 624
 TANNOCK, I. F., 861, 871
 TARIN, D., 186, 187
 TAYLOR, G. A., 173, 174, 202
 TEMPLE, A., 21
 TERPSTRA, O. T., 195
 TESTA, H. T., 489 (BR)
 THATCHER, N., 188, 192
 THOMAS, G., 188
 THOMAS, J. A., 224
 THRIVES, P. J., 171
 TINDALL, V. R., 488 (BR)
 TISDALE, M. J., 121, 195
 TODD, G., 183
 TOTH, B., 922
 TRAININ, N., 551
 TROTTER, J. M., 193, 198, 199
 TSUBOYAMA, A., 908
 TSUJI, K., 477
 TUDWAY, A. J. C., 85
 TURNER, G. A., 915
 TURNER, R. L., 202
 TURTON, J., 194
 TWENTYMAN, P. R., 180, 297
 UFF, J., 34
 URRITIA-SHAW, A., 423
 VAILLIER, D., 722
 VAILLIER, J., 722
 VAN BOGAERT, L. J., 537
 VAUGHAN, K., 170
 VEASY, A., 169
 VESSEY, M. P., 359
 VINCENT, L. SAINT, See *Saint Vincent, L.*
 VON EYBEN, F., 156
 VOSE, B. M., 177

- WAGNER, J. C., 194, 797
WAGNER, M. M. F., 194, 797
WAGSTAFF, J., 188
WALKER, L. M. SECKER, See *Secker-Walker*,
L. M.
WALKER, R., 205
WARD, A. M., 190, 510
WARD, J. M., 772
WATERHOUSE, J. A. H., 189
WATKINSON, A. P., 448
WATSON, A. J., 95
WATSON, J. V., 184 (3)
WEBBE, G., 730
WELSHMAN, S. G., 613
WESTWOOD, J. H., 183
WHITE, R. A. S., 180
WHITMARSH-EVERISS, T., 175, 900
WHUR, P., 187, 305
WIBE, E., 937
WILKIE, N. M., 195
WILKIE, D., 112
WILKINSON, P. M., 192 (2), 490 (BR)
WILLIAMS, D. C., 187, 305
WILLIAMS, J. C., 194
WILLIAMS, M., 765
WILLIAMSON, R. C. N., 85, 195
WILLMOTT, N., 187
WILMAN, D. E. V., 203
WILSON, G. D., 616
WILSON, M. K., 342
WINSLOW, D. P., 756
WITHERS, H. R., 765
WONG, C. K., 179
WOODHOUSE, C. S., 178
WOODS, K. L., 201, 616
WOOLLEY, D. E., 260
WORKMAN, P., 179, 180
WRATHMELL, A. B., 408
WRIGHT, D. H., 176, 205
WU, P.-C., 370

YIN, S.-J., 319
YOSEF, H., 196
YUHAS, J. M., 574
YULE, R., 806 (BR)

ZÖLLER, M., 516

SUBJECT INDEX

(A) Abstract only

- Adenosine arabinoside
 - enzymatic activation, 203 (A)
- Adriamycin
 - cytotoxicity, 881
 - cytotoxicity on hypoxic cells, 568
 - interaction with nitroimidazoles, 861
 - response of intestinal crypts, 692
- Aflatoxin B₁
 - sequential changes, 319
- Alkylating agents
 - exposure estimation, 193 (A)
 - therapeutic index, 485
- Antigens
 - hepatoma-specific: suppressor cells, 176 (A)
 - tumour-specific: fragment preparation, 266
 - tumour-specific: radioiodinated, 174 (A)
- Aryl azides
 - radiosensitizing agents, 179 (A)
- Asbestos
 - rat mesothelioma immunogenicity, 797

- Bacille Calmette-Guérin
 - ACNU and, on rat macrophages, 162
 - reactivity *in vitro*, 183 (A)
- BCNU
 - interaction with nitroimidazoles, 871
- Benzo(a)pyrene
 - metabolism: species variation, 200 (A)
- Bladder cancer
 - BBN: ultrastructural changes, 201 (A)
 - BBN and biogenesis, 193 (A)
 - BBN tumour detection, 194 (A)
 - in Scotland, 196 (A)
 - OTS and saccharin in, 129
 - schistosomiasis and a nitrosamine in, 730
- Bleomycin
 - drug monitoring, 193 (A)
- Bone cancer
 - neoplasia: immune complexes, 182 (A)
- Book Reviews
 - Acute leukaemias* (T. F. Necheles), 807
 - Anticancer Drugs* (W. B. Pratt & R. W. Ruddon), 490
 - BCG Vaccine* (S. R. Rosenthal), 489
 - Bladder Tumours and other Topics in Urological Oncology* (Ed. M. Pavone-Macaluso *et al.*), 802
 - Cancer Chemotherapy* (Ed. M. J. Cline & C. N. Haskell), 488
 - Cancer Treatment* (Ed. C. M. Haskell), 805
 - Catalog of Teratogenic Agents* (T. H. Shepard), 627
 - Clinical Management of the Pituitary Disorders* (Ed. G. T. Tindall & W. F. Collins), 488
 - Contemporary Hematology/Oncology* (Ed. J. Lobue *et al.*), 489
 - Effects of Drugs on the Cell Nucleus* (Ed. H. Busch *et al.*), 950
 - Environmental Carcinogens, Vol. 3*, (Ed. P. Bogoisbi *et al.*), 806
 - Fast Neutrons in the Treatment of Cancer* (M. Catterall & D. K. Bewley), 803
 - Guide to Therapeutic Oncology* (Ed. D. R. Bergevin *et al.*), 802
 - Gynaecologic and Obstetric Pathology* (E. R. Novak & J. D. Woodruff), 353
 - Gynaecological Cytology* (M. E. Boon & M. L. Tabbers), 806
 - Heavy Particle Radiotherapy* (M. R. Raju), 806
 - Human Plasma Proteins* (J. W. Keyser), 629
 - Immunodiagnosis, part 2* (Ed. R. B. Herberman & K. R. McIntire), 353
 - Immunological Xenogenization of Tumour Cells* (Ed. H. Kobayashi), 354
 - Interferon I, 1979* (Ed. I. Gresse), 352
 - Naturally Occurring Carcinogens, Mutagens and Modulators of Carcinogenesis* (Ed. E. C. Miller *et al.*), 950
 - Nutrition and Cancer* (J. van Eys *et al.*), 354
 - Pathology of Soft Tissue Tumours* (S. L. Hajdu), 628
 - Preleukaemic Disorders* (L. Kass), 805
 - Principles and Management of Urologic Cancer* (N. Javadpour), 352
 - Processes in Pathology* (M. J. Taussig), 807
 - Progress in Radiopharmacology, vol. 1* (Ed. P. H. Cox), 489
 - Proteins of Animal Cell Plasma Membranes, vol. 2* (D. F. H. Wallach), 353
 - Radiation Biology in Cancer Research* (Ed. R. E. Meys & H. R. Withers), 628
 - Radiation Oncology* (Ed. W. T. Moss *et al.*), 802
 - Short Textbook of Clinical Oncology* (R. D. Rubens & R. K. Knight), 629
 - Surgical Pathology of the Uterine Corpus* (M. R. Hendrickson & R. L. Kempson), 488
 - Tumor Antigenicity and Approaches to Tumor Immunotherapy* (D. W. Weiss), 627
- Brain cancer
 - effect of TPA on ENU-exposed cells, 756
- Breast cancer
 - CAE estimation, 199 (A)
 - cell membrane antigen, 204 (A)
 - cytotoxic therapy and ND, 202 (A)
 - faecal bile acids and clostridia in, 856
 - familiality, 71
 - glycoprotein hormone α -subunit, 645
 - hydroxyurea cell kinetics, 185 (A)

- Breast cancer (*continued*)
 lipopolysaccharide effect, 901
 macrophages and metastatic potential, 187 (A)
 male: prostate cancer and, 787
 metastatic colonization potential, 187 (A)
 micrometastases: detection, 183 (A), 392
 monoclonal antibody, 179 (A)
 mortality trends in Italy, 620
 MTV envelope antigen, 542
 nuclear diameter and prognosis, 537
 NMU characteristics, 194 (A)
 oestrogen receptors: immunocytochemical localization, 183 (A)
 oestrogen receptors; patient features, 635
 parity and onset, 201 (A)
 prostaglandins and hypercalcaemia, 455
 psychiatric morbidity, 200 (A)
 reproductive history and, 651
 serial passage: endocrine response, 326
 serum glycoprotein hormone, 199 (A)
 sodium butyrate effect, 616
 xenografts: chemotherapy, 530
 xenografts: chemosensitivity, 173 (A)
 xenografts in immune-suppressed mice, 524
- Bronchial cancer
 cyclophosphamide in, 192 (A)
- Cachetic cancer
 albumin metabolism, 198 (A)
- Carcinogens, see *specific carcinogens*
- Cells, see also *Tumours: types of cells*
 B colony formation, 430
 BCG and ACNU effect on rat macrophages, 162
 C3a: fibroblast cytotoxicity, 21
 CSF inhibition, 205 (A)
 dCf/AdR combination toxicity, 170 (A)
 flow cytometer identification, 184 (A)
 intestinal cytotoxic response, 177 (A)
 isobolograms of platinum and radiation, 292
 LAI assay: immune response detection, 175 (A)
 laser flow cytometer, 184 (A)
 lectin binding measurements, 185 (A)
 leucocytes: gangliosides in, 908
 leucocyte migration test, 516
 lymphocyte response to PHA, 207
 lymphocytes: cytotoxic significance, 275
 macrophage characterization, 177 (A)
 metabolic modulators, 204 (A)
 methionine deprivation, 123
 methylcellulose-Agar clonogenicity, 933
 mononuclear: granulocyte contamination, 794
 mouse marrow subpopulations, 184 (A)
 NK populations: target preference, 243
 surface properties and metastasis, 915
 T2: interferon therapy, 423
 UDPGlcNac hydrolysis, 929
- Cervical cancer
 dysplasia or carcinoma *in situ*, 359
 HSV detection, 195 (A)
- Chemotherapy, see also *specific agents*
 cytotoxic effect *in vivo*, 677
 m-AMSA combined with radiation, 684
 nitroimidazoles and, 861, 871
- Cisplatin
 preclinical studies, 169 (A)
- Colonic cancer
 autoreactive lymphocytes, 177 (A)
 CEA immune complexes, 26
 cell proliferation, 95
 cholecystectomy and, 791
 combination chemotherapy, 198 (A)
 IgG concentrations, 503
 LMI test using foetal colon, 345
 N.D. effect on CCNU, 171 (A)
 reactive hyperplasia, 195 (A)
- Concanavalin-A
 lymphocyte suppressor activity, 176 (A)
- Corynebacterium parvum*
 immune-complex disease after, 34
 natural cytotoxicity: stimulation by, 41
- Cyclophosphamide
 interaction with nitroimidazoles, 871
- Cyclosporin A
 effect on growth and metastasis, 252
 rodent tumour effects, 186 (A)
- Desmethylmisonidazole
 better radiosensitization, 153
- Dexamethasone
 misonidazole interactions, 179 (A)
- Ehrlich ascites cells
 studies on, 712
- Electrophoretic mobility of splenic cells in cancer, 722
- Enzymes
 serum angiotensin-converting, 314
- Erythrocytes
 electrophoretic mobility, 448
- Ethylenethiourea
 antimitochondrial effects, 112
- 5-Fluorouracil
 interaction with nitroimidazoles, 861
- Folate metabolite
 new: biological properties, 172 (A)
 new: design and synthesis, 172 (A)
- Gastrointestinal cancer
 CEA immune complexes, 26
 combined-modality therapy, 188 (A)
 ectopic hPL in, 610
 serum ACT levels, 198 (A)
- Haemopoietic stem cells
 analysis of behaviour, 942
- Hexamethylmelamine
 breath analysis of CO₂, 169 (A)
- Hodgkin's disease
 cytotoxic effector function, 205 (A)

- splenectomy and prognosis in, 284
- T-lymphocyte levels, 205 (A)
- Hydroxymethyl triazenes
 - cytotoxicity reduction, 170 (A)
- ICRF 159 see *Razoxane*
- Immunoglobulins
 - anti-CEA: *in vitro* cytotoxicity, 179 (A)
- Intestinal cancer
 - anticoagulation and, 85
- Interferon
 - T and B cells: proliferative aspects, 423
- Laryngological cancer
 - in Scotland, 196 (A)
- Leukaemia
 - childhood: mother-foetus infection, 158
 - heparin and daunomycin in, 782
 - host response to altered L1210 cells, 697
 - indium lymphocyte labelling, 188 (A)
 - non-AgB antigens: antibody rejection, 408
 - respiratory infection diagnosis, 190 (A)
- Leukaemia, acute lymphoblastic
 - methotrexate absorption, 613
 - prognosis in childhood, 841
 - relapse: new clone, 191 (A)
- Leukaemia, acute myelogenous
 - antibodies in sera, 385
 - neutropenia and infection, 191 (A)
- Leukaemia, acute myeloid
 - allogeneic marrow transplantation, 190 (A)
 - Ara-C deamination, 172 (A)
- Leukaemia, lymphocytic
 - anti-Ig antibody therapy, 495
- Liposarcoma
 - glycosaminoglycan synthesis, 479
- Lung cancer
 - ageing cell surface changes, 103
 - antisera: limited specificity, 178 (A)
 - antineoplastic effects of antipain, 624
 - clinical trials: strategy, 201 (A)
 - immune complexes: detection, 182 (A)
 - immunoperoxidase staining, 178 (A)
 - Lewis: metastatic variants, 187 (A)
 - Lewis: plasminogen activator, 305
- Lymphomas
 - growth enhancement by T cells, 551
 - immuno-histological diagnosis, 224
 - malignant: immune system and, 1
 - T cell: in children, 659
- Malnutrition
 - plasma amino-acid profiles, 199 (A)
- Maltose tetrapalmitate
 - antitumour activity, 703
- Mammary, see *Breast*
- Melanoma
 - FAMMM syndrome, 58
 - intracranial metastasis, 331
 - malignant: survival sex ratio, 52
 - multiple: serum β_2 -microglobulin, 190 (A)
 - surface antigens, 399
 - xenografts: cell survival, 438
- Methionine
 - increased requirement, 195 (A)
- Methotrexate
 - absorption in leukaemic children, 613
 - collagenase and invasiveness, 260
 - interaction with nitroimidazoles, 861
 - metabolism and excretion, 192 (A)
 - rescue by ITA, 173 (A), 174 (A)
 - therapeutic monitoring, 192 (A)
- Methylmelamine
 - breath analyses from HexaMM, 169 (A)
 - clinical studies with PentaMM, 169 (A)
- Misonidazole
 - dexamethasone interaction, 179 (A)
 - drug interactions, 180 (A)
 - neurotoxicity: biochemical assessment, 890
- Muscle tissue
 - lyophilization: ESR signals, 349
- Myelomatosis
 - β_2 -microglobulin in, 510
 - MRC trial, 2nd., 813
- Nasal cancer
 - chronic inhalation of DBCP, 772
- Orbital lymphoma
 - radiotherapy treatment, 188 (A)
- Osteosarcomas
 - immune complexes, 181 (A)
- Ovarian cancer
 - Tumour-associated antigens, 481
- Pancreatic cancer
 - CEA immune complexes, 26
- Pasteurella pneumotropica*
 - tumour growth inhibition, 473
- Platinum
 - second-generation compounds, 668
- Prednisolone
 - chromatin-binding effect, 171 (A)
- Prostaglandins
 - Walker carcinoma: PGE production, 455
- Prostate cancer
 - relation with breast cancer, 787
- Radiosensitizers, see *individual radiosensitizers*
- Razoxane
 - cellular resistance, 186 (A)
- Rectal cancer
 - CEA immune complexes, 26
 - combination chemotherapy, 198 (A)
- Saccharin
 - OTS and, in bladder cancer, 129
- SCM test
 - evaluation: comments on, 947, 949
- Silica
 - lymphoma induction, 194 (A)
- Skin cancer, see *types of skin cancer*
- Stomach cancer
 - CEA immune complexes, 26

- clustering in Argyll, 196 (A)
 - glycosaminoglycan content, 78
- Smoking
 - school health education, 203 (A)
- Spleen cells in cancer
 - electrophoretic mobility of, 722
- Teratomas
 - advanced: chemotherapy, 197 (A), 378
 - testicular: prognosis, 197 (A)
- Testicular cancer
 - AFP and HCG in maldescended testis, 156
 - primary lymphomas, 189 (A)
 - prognosis in malignant teratoma, 850
 - teratomas: prognosis, 197 (A)
- Thioacetamide
 - antimitochondrial effects, 112
- Thymidine
 - modulation by EUdR, 202 (A)
- Tumours, see also *Cells; sites and types of tumours*
 - blood sugar levels, 181 (A)
 - childhood: Manchester Registry data, 215
 - childhood: prenatal chickenpox, 342
 - DAB-induced changes in NMR, 148
 - differentiation between malignant properties, 765
 - EMT6: spheroid response to chemotherapy, 297
 - extramedullary plasmacytomas, 189 (A)
 - growth inhibition by *P. pneumotropica*, 473
 - growth potential by endotoxin, 559
 - GVHD inhibition, 175 (A)
 - immune complexes as markers, 204 (A)
 - irradiation: kinetics after, 586
 - metastasizing from metastases, 462
 - methionine increase, 195 (A)
 - multicellular spheroids: chemotherapy response, 180 (A)
 - multicellular spheroids: hyperthermia and drugs, 181 (A)
 - necrosis factor: purification, 416
 - N-n-propyl-N-formylhydrazine genesis, 922
 - platelet function inhibition, 187 (A)
 - regional immunotherapy, 175 (A)
 - WR-2721 and *cis*-Pt or CY combination, 574
- Vincristine
 - spheroids resistance to, 937