

Contents

Introduction	11
------------------------	----

Invasion and Metastasis as Targets for Tumour Therapy

K. E. KUETTNER and B. U. PAULI: Primary Invasion: Natural Inhibitors	15
G. ATASSI, P. DUMONT and M. VANDENDRIS: Effect of Deacetyl Vinblastine Amide Sulphate or Vindesine (VDS) against the In-Vivo Invasion and Formation of Tumour Metastasis	23
P. HILGARD and K. HELLMANN: Invasion and Metastases as Targets for Tumour Therapy. An Overview	33
L. DE RIDDER, O. D. LAERUM and S. MÖRK: Invasiveness of Brain Tumour Cells in Vivo and In Vitro	42
M. MAREEL, G. STORME, G. DE BRUYNE, R. VAN CAUWENBERGE and C. DRAGONETTI: Anti-invasiveness of Microtubule Inhibitors is due to Interference with the Cytoplasmic Microtubule Complex	47
T. GIRALDI, G. SAVA, R. CHERUBINO, L. LASSIANI, G. BOTTIROLI and G. MAZZINI: Metastasis: Mitostatic Drugs	55
L. R. ZACHARSKI: Anticoagulant Treatment of Cancer	63
M. NUTI, Y. A. TERAMOTO, R. MARANI-CONSTANTINI, P. HORAN HAND, D. COLCHER and J. SCHLOM: Reactivity of a Monoclonal Antibody (B72.3) with Fixed Sections of Human Mammary Carcinomas	66
W. A. BOGGUST and S. O'CONNELL: Polyamine Oxidation in Relation to Tumour Growth and Metastasis	71
K. ELGJO, G. ISAKSSON-FORSÉN, K. REICHELT and O. P. F. CLAUSEN: Partial Purification of an Epidermal Growth Inhibitor (Chalone)	83

Hormone Receptors

E. HEISE and M. GÖRLICH: Estradiol Receptors in Human Breast Cancers and Prognosis	87
A. PIFFANELLI, S. FUMÉRO, D. PELIZZOLA, G. GIOVANNINI and L. RICCI: External Quality Assessment Scheme of Estradiol Receptors Assay: An Italian Survey	93
I. SZÁMEL, B. VINCZE, E. SVASTITS, J. TÓTH, S. KERPEL-FRONIUS and S. ECKHARDT: Methodological and Clinical Studies of the Steroid Receptor Assay in Primary Breast Cancer	99

Z. PAZKO, H. PADZIK, F. PIENKOWSKA, S. CHRAPUSTA, B. WASOWSKA and E. KWIATKOWSKA: The Value of Hormone Receptor Assays for Prediction of the Effectiveness of Endocrine Therapy in Breast Cancer	104
--	-----

The Cancer Cell Surface as a Target for Tumour Therapy

B. F. DEYS: Normal and Pathological Cell Communication	113
H. GRUNICKE, H. PUTZER, F. SCHEIDL and E. WOLFF-SCHREINER: The Cell Surface as a Target for Alkylating Agents	119
D. A. L. DAVIES: The Synergistic Effect of Drugs and Antibodies	127
A. PIHL and Ø. FODSTAD: Cancerostatic Lectins	134
F. STIRPE and L. BARBIERI: Ribosome-Inactivating Proteins as Possible Chemotherapeutic Agents	142
K. A. KROLICK, W. UHR and E. S. VITETTA: Selective Targeting of Ricin A Chain to a B Cell Tumour by Anti-Immunoglobulin Antibodies	147

Development of New Drugs

C. AUCLAIR, B. MEUNIER and C. PAOLETTI: The Generation of Reactive Molecular Species during the Oxidation of 9-Hydroxyellipticine Derivates. Interest of Prooxidant Compounds in the Design of Anticancer Drugs.	159
P. WORKMAN: Development of Nitroimidazoles	166
M. MICKSCHE, M. COLOT, A. FRITSCH, E. M. KOKOSCHKA, R. KOLB, R. LENZHOFFER, TH. LUGER, K. MOSER, H. RAINER, P. SAGASTER and A. UCHIDA: Development of New Drugs — Immunomodulating Agents	173
C. J. RUTTY, D. R. NEWELL, J. R. F. MUINDI and K. R. HARRAP: Development of Potential Clinical Alternatives to Hexamethylmelamine	180
J. BAN, E. OLAH and G. WEBER: Synergistic Interaction of an Alkylating Agent (Lycurim) and an Antimetabolite (Pyrazofurin) on Hepatoma 3924A Cells in Culture	189
F. BOCCARDO, R. ROSSO, A. BARBIERI, L. CANOBBIO, D. GUARNERI and M. MERLANO: Phase II Evaluation of 4-Thiazolidine-Carboxylic Acid (Thioprolin) in Advanced Epidermoid Head and Neck Tumours	194
E. CSÁNYI, Z. HARGITTAY, E. KIRÁLY, T. HORVÁTH, L. BOGDÁNY and K. TORY: The Effect of a Bifunctional N-Nitrosourea Derivative (GYKI-13324) on Experimental Metastasis Models	198
M. HABS and D. SCHMÄHL: Long-term Toxic and Carcinogenic Effects of Cytostatic Drugs	201
E. S. NEWLANDS: VP 16-213 (Etoposide; NSC-141540; Vepesid): A Review	210
M. J. CLEARE, P. C. HYDES and C. F. T. BARNARD: New Platinum Anti-Cancer Drugs	214
O. WILDERMUTH: The Status of Proteolytic Enzymes in Oncology	225
L. LENAZ, R. CANETTA and P. HILGARD: Marcellomycin: A New Class II Anthracycline	231

Biological Response Modifiers

K. SIKORA: Interferon	239
D. A. STRINGFELLOW and G. L. NEIL: Comparative Interferon-Inducing and Antitumour Activity of Substituted Pyrimidinones	245

J. KRUŠIĆ, Ž. MARIČIĆ, V. CHYLAČ, B. RODE, D. JUŠIĆ and E. ŠOOŠ: Influence of Human Leucocyte Interferon on Squamous-Cell Carcinoma of Uterine Cervix: Clinical, Histological and Histochemical Observations	253
I. PADOVAN, E. ŠOOŠ and I. BRODAREC: Effect of Interferon on Malignant Head and Neck Tumours	256
P. K. BONDY and Z. NAKOS CANELLAKIS: Polyamines and Neoplasia: A Review of Present Knowledge of their Function and Therapeutic Potential	258
H. WRBA and A. G. RIEGER: Retinoid	269
K. TAKEDA, J. MINOWADA and A. BLOCH: The Role of Drug-Induced Differentiation in the Control of Tumour Growth	275
S. D. VESSELINOVITCH and N. MIHAILOVICH: Modifying Effect of the Sex Hormonal Environment on the Growth of Basophilic Foci and Hepatocellular Carcinoma	282
K. KOLARIĆ, A. ROTH, I. JELIČIĆ and A. MATKOVIĆ: Phase II Clinical Trial of cis-Dichlorodiamine Platinum (cis-DDP) in Metastatic Brain Tumours — A Preliminary Report	287
P. CHIECO and C. MALTONI: Adriamycin: Experimental Evidence of Carcinogenicity	292
G. AICARDI, G. CANTELL FORTI, M. C. GUERRA, A. M. BARBARO and G. L. BIAGI: Electroreduction, Mutagenicity and Antimicrobial Activity of 5-Nitroimidazole Derivates	300
G. SAVA, T. GIRALDI, L. LASSIANI and C. NISI: Mechanism of the Antileukemic Action of DTIC and its Benzenoid Analog DM-COOK in Mice	309

Laboratory Assessment of Therapeutic Activity

St. TANNEBERGER and E. NISSEN: The Role of In Vitro Techniques in Assessing Antineoplastic Therapeutic Activities	315
K. LAPIS and L. KOPPER: In Vivo Tests — Xenografts	327
C. MALTONI, G. COTTI, L. VALGIMIGLI and A. MADRIOLI: Suitable Models for Long-Term Bioassays on the Therapeutic and Toxic Effects of Antiblastic Drugs: Liver Angiosarcomas Produced in Sprague-Dawley Rats by Vinyl Chloride	339
J. SUGÁR, O. CSUKA, I. PÁLYI and E. OLÁH: Role of some Biological Parameters in Drug Sensitivity and Resistance of Tumour Cells	342
R. I. FRESHNEY, F. CELIK and D. MORGAN: Analysis of Cytotoxic and Cytostatic Effects	349
A. H. CALVERT and K. R. HARRAP: An Appraisal of Current In Vivo and In Vitro Screening Methods	359
W. KRAFFT, D. BRÜCKMANN, J. BRÜCKMANN, H. BEHLING, W. PREIBSCH and J. KADEMANN: Clinical Relevance of some Useful Methodes for In Vitro Testing of Cytostatic Sensitivity in Cases of Ovarian Cancers	366
G. P. STATHOPOULOS, Ch. PATHOULI, A. MANOURAS, A. DELLADETSIKA, K. PRATSIKA-UGUROGLOU and M. PHILLIPAKIS: Immunoglobulin Producing Cell Infiltration in Colorectal Cancer Tissues Correlated with Patients Survival	369
G. COTTI, L. VALGIMIGLI, A. MANDRIOLI and C. MALTONI: Suitable Models for Long-Term Bioassays of Therapeutic and Toxic Effects of Antiblastic Drugs: Brain Tumours of Neuronal Cells and Primitive Bipotential Precursors produced in Sprague-Dawley Rats by Vinyl Chloride	376
C. MALTONI: Laboratory Assessment of Therapeutic Activity (With Particular Regard to Chemotherapy): Relevant Animal Models	379
S. PEREZ-CUADRADO, M. C. MORENO-KOCH and A. USON-CALVO: Biological Significance and Dose-Dependent Effect of 'Resistocell' on Peripheral Blood Leucocytes In Vitro	393

H. G. SCHLEICH, W. WIEST and R. POHL: Human Serum Ribonuclease Activity as a Marker for Therapeutic Success in Ovarian Carcinoma	401
A. L. JACKMAN, A. H. CALVERT, G. A. TAYLOR and K. R. HARRAP: Biological Properties of the New Quinazoline Inhibitor of Thymidylate Synthetase CB 3717	404

Miscellaneous

B. BRDAR and J. SORIĆ: Reactivation of Alkylation-Damaged Adenovirus 3 by Cell Cultures Derived from Human Tumours	413
L. CACCIARI, E. BELTRANDI, M. A. BUCCI, R. PARENTE, F. SPAGNOLLI and F. SERVADEI: Effects of Surgical and Radio-Chemotherapeutic Treatment on the Immunological Pattern in Malignant Glioma Patients	418
B. M. BOMBIK, S. SERKE and H. GERHARTZ: Control of Megacaryocyte Differentiation in Healthy and Leukemic Patients	423
G. HAGNER, M. BOMBIK, W. D. VOIGT and H. GERHARTZ: Cytotoxic T Lymphocytes: Various Effects on Human Myeloma Cells	426
G. CANTELLI FORTI, G. AICARDI, N. M. TRIEFF, E. SPERONI, T. ROSSI and G. L. BIAGI: Analysis of AHH Inducibility Ratios and Distribution in Human Lymphocytes by TLC-Radioisotopic Assay	431
M. HABS, H. HABS, G. EISENBRAND and D. SCHMÄHL: Antitumour Activity of New Nitrosoureas on Yoshida Sarcoma Ascites Cells In Vitro	438
H. J. HOHORST, L. BIELICKI and G. VOELCKER: The Mode of Action of Cyclophosphamide	445
Index	457
Appendix	465