CONTENTS†

Asterisks * preceding page numbers refer to studies using human-derived material.

Perspectives in Cancer Research

767 Hodgkin's Disease: Challenges for the Future. Saul A. Rosenberg.

Review

770 Magnetic Resonance Spectroscopy of Tumors and Potential in Viro Clinical Applications: A Review. Peter F. Daly and Jack S. Cohen.

BASIC SCIENCES

- 780 Mechanism of Reversion of Rous Sarcoma Virus Transformation by Herbimycin A: Reduction of Total Phosphotyrosine Levels Due to Reduced Kinase Activity and Increased Turnover of p60^{r-xr}. Yoshimasa Uehara, Yuko Murakami, Yoshikazu Sugimoto, and Satoshi Mizuno.
- *786 Complexity of MAM-6, an Epithelial Sialomucin Associated with Carcinomas. John Hilkens, Femke Buijs, and Marjolijn Ligtenberg.
 - 794 Enhancement of Experimental Gastric Carcinogenesis Induced in Spontaneously Hypertensive Rats by N-Methyl-N'-nitro-N-nitro-soguanidine. Masaharu Tatsuta, Hiroyasu Iishi, Miyako Baba, and Haruo Taniguchi.
- *799 Mechanisms of Combined Effects of γ-Interferon and 5Fluorouracil on Human Colon Cancers Implanted into Nude
 Mice. Kiyoshi Morikawa, Dominic Fan, Yvonne M. Denkins,
 Bernard Levin, Jordan U. Gutterman, Shirley M. Walker, and
 Isaiah J. Fidler.
 - 806 Purification and Characterization of Cytochrome P-450 Induced by Benz(a)anthracene in Mouse Skin Microsomes. Takeshi Ichikawa, Shin-ichi Hayashi, Mitsuhide Noshiro, Kazuaki Takada, and Kyuichiro Okuda.
 - 810 Induction of Colony-stimulating Activity in Mice by Injection of Liposomes Containing Lipophilic Muramyl Peptide Derivatives. Anne Galelli, Bernadette Charlot, Nigel C. Phillips, and Louis Chedid
- *816 Examination of Urokinase Protein/Transcript Levels and Their Relationship with Laminin Degradation in Cultured Colon Carcinoma. Douglas Boyd, Barry Ziober, Subhas Chakrabarty, and Michael Brattain.
- 821 Correlation between Mammary Tumor and Blood Glucose, Serum Insulin, and Free Fatty Acids in Mice. Taisen Iguchi, Noboru Takasugi, Naomi Nishimura, and Shinichiro Kusunoki.
- *826 Evidence for Prostanoid Biosynthesis as a Biochemical Feature of Certain Subclasses of Non-Small Cell Carcinomas of the Lung as Determined in Established Cell Lines Derived from Human Lung Tumors. Walter C. Hubbard, Michael C. Alley, Glenn N. Gray, Karen C. Green, Theodore L. McLemore, and Michael R. Boyd.

- 833 Excretion and Metabolism of Mitoxantrone in Rabbits. Bruno Richard, Gérard Fabre, Isabelle Fabre, and Jean-Paul Cano.
- *838 Sensitization of Noncycling Human Diploid Cells to X-Irradiation by Pretreatment with 9-β-D-Arabinofuranosyladenine. John B. Little and William K. Dahlberg.
- 843 Promotion by Neurotensin of Gastric Carcinogenesis Induced by N-Methyl-N'-nitro-N-nitrosoguanidine in Wistar Rats. Masaharu Tatsuta, Hiroyasu Iishi, Miyako Baba, and Haruo Taniguchi.
- *847 Studies on the Control of Gene Expression of the Carcinoembryonic Antigen Family in Human Tissue. Danny Boucher, Denis Cournoyer, Clifford P. Stanners, and Abraham Fuks.
 - 853 Prostaglandin H Synthase-dependent Mutagenic Activation of Benzidine in a Salmonella typhimurium Ames Tester Strain Possessing Elevated N-Acetyltransferase Levels. P. David Josephy, Anita L. H. Chiu, and Thomas E. Eling.
- *857 Differential Proliferative Response to Linoleate in Cultures of Epithelial Cells from Normal Human Breast and Fibroadenomas.

 Arun Balakrishnan, Scott Cramer, Gautam K. Bandyopadhyay, Walter Imagawa, Jason Yang, Joel Elias, Craig W. Beattie, Tapas K. Das Gupta, and Satyabrata Nandi.
- *863 Flow Cytometric Analysis of Glucocorticoid Receptor Using Monoclonal Antibody and Fluoresceinated Ligand Probes. Dario Marchetti, Nguyen T. Van, Bahiru Gametchu, E. Brad Thompson, Yoshiharu Kobayashi, Fukuko Watanabe, and Bart Barlogie.
- 870 Interleukin 2 Requirement for the *in Vitro* Generation of Antitumor Cytotoxicity by Thymocytes from Melphalan-cured MOPC-315 Tumor Bearers. Margalit B. Mokyr, Mary M. Bartik, and Mi-Chung Ahn.
- 877 Cyclosporin Immunosuppression Mediated by Calcium/Sodium Imbalance. P. M. Kimball and Stewart Sell.
- *883 Response of Cultured Human Cell Lines from Rhabdomyosarcoma Xenografts to Treatment with Chloroethylnitrosoureas. Debra G. Smith and Thomas P. Brent.
- *887 Monoclonal Antibody against Human Colonic Sulfomucin: Immunochemical Detection of Its Binding Sites in Colonic Mucosa, Colorectal Primary Carcinoma, and Metastases. Takao Yamori, David M. Ota, Karen R. Cleary, Stuart Hoff, Leah G. Hager, and Tatsuro Irimura
 - 895 Effects of Triiodothyronine and Tamoxifen on Cell Transformation Induced by an Activated c-Ha-ras Oncogene. Cecilia A. Lopez, W-L. Wendy Hsiao, and I. Bernard Weinstein.
 - 899 Expression of the Tumor-specific and Calcium-binding Protein Oncomodulin during Chemical Transformation of Rat Fibroblasts. Ernst W. Sommer and Claus W. Heizmann

[†] The CONTENTS arranged by Subject Category can be found immediately following these CONTENTS.

- *906 Inhibition by Retinoids of Platelet Growth Factor-dependent Stimulation of DNA Synthesis and Cell Division in Densityarrested C3H 10T½ Fibroblasts. Lawrence J. Mordan.
 - 910 Comparison of DNA-Protein Cross-Links Induced by 4'-(9-Acridinylamino)methanesulfon-m-anisidide and by γ-Radiation. Song-Mao Chiu, Liang-Yan Xue, Libby R. Friedman, and Nancy L. Oleinick.
 - 915 Imbalance of Deoxyribonucleoside Triphosphates, DNA Double-Strand Breaks, and Cell Death Caused by 2-Chlorodeoxyadenosine in Mouse FM3A Cells. Yasuhide Hirota, Akiko Yoshioka, Shohei Tanaka, Kazuyo Watanabe, Takeshi Otani, Jun Minowada, Akira Matsuda, Tohru Ueda, and Yusuke Wataya.
 - 920 Fate of 7,12-Dimethylbenz(a)anthracene in the Mouse Mammary Gland during Initiation and Promotion Stages of Carcinogenesis in Vitro. Sanjoy K. Das, Christopher R. Delp, Abhik M. Bandyopadhyay, Michelle Mathiesen, William M. Baird, and Mihir R. Banerjee.
 - 925 In Vitro Hepatotoxicity of SR 4233 (3-Amino-1,2,4-ben-zotriazine-1,4-dioxide), a Hypoxic Cytotoxin and Potential Antitumor Agent. Anita K. Costa, Margaret A. Baker, J. Martin Brown, and James R. Trudell.
- *930 Production of Interleukin 1 Activity by Cultured Human Melanoma Cells. Jeannette L. Bennicelli, Jack Elias, Jeffrey Kern, and DuPont Guerry IV.
 - 936 Inhibition of Experimental Liver Tumor Growth in Mice by Liposomes Containing a Lipophilic Muramyl Dipeptide Derivative. Nigel C. Phillips and Ming S. Tsao.
- *940 Cytokine Gene Expression during the Generation of Human Lymphokine-activated Killer Cells: Early Induction of Interleukin 1\(\beta\) by Interleukin 2. Elizabeth J. Kovacs, Suzanne K. Beckner, Dan L. Longo, Luigi Varesio, and Howard A. Young.
- *945 Oncodevelopmental Expression of —GlcNAcβ1-6Manα1-6Manβ1— Branched Asparagine-linked Oligosaccharides in Murine Tissues and Human Breast Carcinomas. J. W. Dennis and S. Laferté.
 - 951 A Mechanism of Inhibition of Aflatoxin B₁-DNA Binding in the Liver by Phenobarbital Pretreatment of Rats. Prabhakar D. Lotlikar, H. G. Raj, Linda S. Bohm, Ling Ling Ho, Eun-Chung Jhee, Kojiro Tsuji, and Prathima Gopalan.
- *958 Studies of Topoisomerase-specific Antitumor Drugs in Human Lymphocytes Using Rabbit Antisera against Recombinant Human Topoisomerase II Polypeptide. Jaulang Hwang, Shihua Shyy, Allan Y. Chen, Chung-Chin Juan, and Jacqueline Whang-Peng.
- *963 Lymphokine-activated Killer Activity in Long-Term Cultures with Anti-CD3 plus Interleukin 2: Identification and Isolation of Effector Subsets. Augusto C. Ochoa, Diane E. Hasz, Rebecca Rezonzew, Peter M. Anderson, and Fritz H. Bach.
- *969 Decrease in Interleukin 2-induced Vascular Leakage in the Lungs of Mice by Administration of Recombinant Interleukin 1α in Vivo. Raj K. Puri, William D. Travis, and Steven A. Rosenberg.
- *977 Toxicity of Intrathecally Administered Cytotoxic Drugs and Their Antitumor Activity against an Intrathecal Walker 256 Carcinosarcoma Model for Meningeal Carcinomatosis in the Rat. Kimberly L. Kooistra, Moses Rodriguez, and Garth Powis.
- *983 Clonal Variation in the Production of Tumor-associated α₂-Macroglobulin in a Malignant Human Melanoma and Association with Growth Stimulation. J. Bizik, A. Lizoñová, M. Grófová, J. Matoŝka, J. F. Doré, S. Bertrand, M. Blaŝko, and A. Vaheri.

- 991 Suppression of a Carcinogen (1,2-Dimethylhydrazine Dihydrochloride)-induced Increase in Mitotic Activity in the Colonic Crypts of Rats by Addition of Dietary Cellulose. Ivan L. Cameron, Virginia A. Ord, Keithley E. Hunter, George M. Padilla, and David W. Heitman.
- 996 Induction by the Guanosine Analogue Oxanosine of Reversion toward the Normal Phenotype of K-ras-transformed Rat Kidney Cells. Osamu Itoh, Shunsuke Kuroiwa, Sonoko Atsumi, Kazuo Umezawa, Tomio Takeuchi, and Makoto Hori.
- *1001 Effects of Human Bone Marrow Stroma on the Growth of Human Tumor Cells. Eva-Susanne Strobel, Hermann Gunther Strobel, Klaus Joachim Bross, Bernd Winterhalter, Heinz-Herbert Fiebig, Johannes Ulrich Schildge, and Georg Wilhelm Löhr.
- *1008 Resistance to Neoplastic Transformation Induced by Nonterminal Differentiation. David N. Estervig, Peter B. Maercklein, and Robert E. Scott.
- *1014 Modulation of Growth and Epidermal Growth Factor Receptor Activity by Retinoic Acid in Human Glioma Cells. W. K. Alfred Yung, Reuben Lotan, Polly Lee, Dafna Lotan, and Peter A. Steck
- 1020 Morphological and Immunohistochemical Studies of the Estrogen-induced Syrian Hamster Renal Tumor: Probable Cell of Origin. Alfonso Gonzalez, Terry D. Oberley, and Jonathan J. Li.
- *1029 Bidirectional Control of Membrane Expression and/or Activation of the Tumor Cell IRGpIIb/IIIa Receptor and Tumor Cell Adhesion by Lipoxygenase Products of Arachidonic Acid and Linoleic Acid. Irma M. Grossi, Laurence A. Fitzgerald, Lillian A. Umbarger, Kevin K. Nelson, Clement A. Diglio, John D. Taylor, and Kenneth V. Honn.
 - 1038 Study of the Ability of Phenacetin, Acetaminophen, and Aspirin to Induce Cytotoxicity, Mutation, and Morphological Transformation in C3H/10T½ Clone 8 Mouse Embryo Cells. Steven R. Patierno, Norman L. Lehman, Brian E. Henderson, and Joseph R. Landolph.

CLINICAL AND EPIDEMIOLOGICAL INVESTIGATIONS

- 1045 Analgesics, Cigarette Smoking, and Other Risk Factors for Cancer of the Renal Pelvis and Ureter. Ronald K. Ross, Annlia Paganini-Hill, Joseph Landolph, Vibeke Gerkins, and Brian E. Henderson.
- 1049 Coffee Consumption and Digestive Tract Cancers. Carlo La Vecchia, Monica Ferraroni, Eva Negri, Barbara D'Avanzo, Adriano Decarli, Fabio Levi, and Silvia Franceschi.
- 1052 Immunocytochemical Analysis of Estrogen Receptors as a Predictor of Prognosis in Breast Cancer Patients: Comparison with Quantitative Biochemical Methods. Laura B. Kinsel, Eva Szabo, Geoffrey L. Greene, John Konrath, George S. Leight, and Kenneth S. McCarty, Jr.
- 1057 Classification of Lung Cancer Patients and Controls by Chromatography of Modified Nucleosides in Serum. John E. McEntire, Kenneth C. Kuo, Mark E. Smith, David L. Stalling, Jack W. Richens, Jr., Robert W. Zumwalt, Charles W. Gehrke, and Ben W. Papermaster.
- 1063 Clinical Trial of Continuous Infusion Verapamil, Bolus Vinblastine, and Continuous Infusion VP-16 in Drug-resistant Pediatric Tumors. Mitchell S. Cairo, Stuart Siegel, Nick Anas, and Leonard Sender.

1067 Comparative Study of Plasminogen Activators in Cancers and Normal Mucosae of Human Urinary Bladder. Yoshihiro Hasui, Junji Suzumiya, Kousuke Marutsuka, Akinobu Sumiyoshi, Seiichi Hashida, and Eiji Ishikawa.

1071 Announcements

Eightieth Annual Meeting of the AACR
Travel Grants from the Comprehensive Biomedical Program
of the NCI

AACR Special Conferences in Cancer Research Future Annual Meetings of the AACR Collected Perspectives in Cancer Research Calendar of Events

1073 Errata

A. K. Verma et al., 48: 5754-5758, 1988. J. H. Edmonson et al., 48: 6584-6586, 1988.

1074 Author Index

NOTE: AACR forms available in the back of this issue-

- Application for Associate Membership
- Advance Registration Form for the 80th Annual Meeting

Cancer Research

VOLUME 49 • NUMBER 4

CONTENTS Arranged by Subject Category

Perspectives in Cancer Research

767 Hodgkin's Disease: Challenges for the Future. Saul A. Rosenberg.

Review

770 Magnetic Resonance Spectroscopy of Tumors and Potential in Vivo Clinical Applications: A Review. Peter F. Daly and Jack S. Cohen.

BASIC SCIENCES

Biochemistry and Biophysics

- *786 Complexity of MAM-6, an Epithelial Sialomucin Associated with Carcinomas. John Hilkens, Femke Buijs, and Marjolijn Ligtenberg.
 - 806 Purification and Characterization of Cytochrome P-450 Induced by Benz(a)anthracene in Mouse Skin Microsomes. Takeshi Ichikawa, Shin-ichi Hayashi, Mitsuhide Noshiro, Kazuaki Takada, and Kyuichiro Okuda.
- *826 Evidence for Prostanoid Biosynthesis as a Biochemical Feature of Certain Subclasses of Non-Small Cell Carcinomas of the Lung as Determined in Established Cell Lines Derived from Human Lung Tumors. Walter C. Hubbard, Michael C. Alley, Glenn N. Gray, Karen C. Green, Theodore L. McLemore, and Michael R. Boyd.
- *863 Flow Cytometric Analysis of Glucocorticoid Receptor Using Monoclonal Antibody and Fluoresceinated Ligand Probes. Dario Marchetti, Nguyen T. Van, Bahiru Gametchu, E. Brad Thompson, Yoshiharu Kobayashi, Fukuko Watanabe, and Bart Barlogie.
 - 910 Comparison of DNA-Protein Cross-Links Induced by 4'-(9-Acridinylamino)methanesulfon-m-anisidide and by γ-Radiation. Song-Mao Chiu, Liang-Yan Xue, Libby R. Friedman, and Nancy L. Oleinick.
 - 915 Imbalance of Deoxyribonucleoside Triphosphates, DNA Double-Strand Breaks, and Cell Death Caused by 2-Chlorodeoxyadenosine in Mouse FM3A Cells. Yasuhide Hirota, Akiko Yoshioka, Shohei Tanaka, Kazuyo Watanabe, Takeshi Otani, Jun Minowada, Akira Matsuda, Tohru Ueda, and Yusuke Wataya.
- *945 Oncodevelopmental Expression of —GlcNAcβ1-6Manα1-6Manβ1— Branched Asparagine-linked Oligosaccharides in Murine Tissues and Human Breast Carcinomas. J. W. Dennis and S. Laferté.
- *983 Clonal Variation in the Production of Tumor-associated α₂-Macroglobulin in a Malignant Human Melanoma and Association with Growth Stimulation. J. Bizik, A. Lizonová, M. Grófová, J. Matoŝka, J. F. Doré, S. Bertrand, M. Blaŝko, and A. Vaheri.

Carcinogenesis

- 794 Enhancement of Experimental Gastric Carcinogenesis Induced in Spontaneously Hypertensive Rats by N-Methyl-N'-nitro-N-nitrosoguanidine. Masaharu Tatsuta, Hiroyasu Iishi, Miyako Baba, and Haruo Taniguchi.
- * Indicates studies using human-derived material.

- 843 Promotion by Neurotensin of Gastric Carcinogenesis Induced by N-Methyl-N'-nitro-N-nitrosoguanidine in Wistar Rats. Masaharu Tatsuta, Hiroyasu Iishi, Miyako Baba, and Haruo Taniguchi.
- 853 Prostaglandin H Synthase-dependent Mutagenic Activation of Benzidine in a Salmonella typhimurium Ames Tester Strain Possessing Elevated N-Acetyltransferase Levels. P. David Josephy, Anita L. H. Chiu, and Thomas E. Eling.
- 899 Expression of the Tumor-specific and Calcium-binding Protein Oncomodulin during Chemical Transformation of Rat Fibroblasts. Ernst W. Sommer and Claus W. Heizmann.
- *906 Inhibition by Retinoids of Platelet Growth Factor-dependent Stimulation of DNA Synthesis and Cell Division in Densityarrested C3H 10T½ Fibroblasts. Lawrence J. Mordan.
 - 920 Fate of 7,12-Dimethylbenz(a)anthracene in the Mouse Mammary Gland during Initiation and Promotion Stages of Carcinogenesis in Vitro. Sanjoy K. Das, Christopher R. Delp, Abhik M. Bandyopadhyay, Michelle Mathiesen, William M. Baird, and Mihir R. Banerjee.
 - 951 A Mechanism of Inhibition of Aflatoxin B₁-DNA Binding in the Liver by Phenobarbital Pretreatment of Rats. Prabhakar D. Lotlikar, H. G. Raj, Linda S. Bohm, Ling Ling Ho, Eun-Chung Jhee, Kojiro Tsuji, and Prathima Gopalan.
 - 991 Suppression of a Carcinogen (1,2-Dimethylhydrazine Dihydrochloride)-induced Increase in Mitotic Activity in the Colonic Crypts of Rats by Addition of Dietary Cellulose. Ivan L. Cameron, Virginia A. Ord, Keithley E. Hunter, George M. Padilla, and David W. Heitman.
- *1008 Resistance to Neoplastic Transformation Induced by Nonterminal Differentiation. David N. Estervig, Peter B. Maercklein, and Robert E. Scott.
 - 1038 Study of the Ability of Phenacetin, Acetaminophen, and Aspirin to Induce Cytotoxicity, Mutation, and Morphological Transformation in C3H/10T½ Clone 8 Mouse Embryo Cells. Steven R. Patierno, Norman L. Lehman, Brian E. Henderson, and Joseph R. Landolph.

Immunology

- 870 Interleukin 2 Requirement for the in Vitro Generation of Antitumor Cytotoxicity by Thymocytes from Melphalan-cured MOPC-315 Tumor Bearers. Margalit B. Mokyr, Mary M. Bartik, and Mi-Chung Ahn.
- 877 Cyclosporin Immunosuppression Mediated by Calcium/Sodium Imbalance. P. M. Kimball and Stewart Sell.
- *887 Monoclonal Antibody against Human Colonic Sulfomucin: Immunochemical Detection of Its Binding Sites in Colonic Mucosa, Colorectal Primary Carcinoma, and Metastases. Takao Yamori, David M. Ota, Karen R. Cleary, Stuart Hoff, Leah G. Hager, and Tatsuro Irimura.
- *963 Lymphokine-activated Killer Activity in Long-Term Cultures with Anti-CD3 plus Interleukin 2: Identification and Isolation of Effector Subsets. Augusto C. Ochoa, Diane E. Hasz, Rebecca Rezonzew, Peter M. Anderson, and Fritz H. Bach.

*969 Decrease in Interleukin 2-induced Vascular Leakage in the Lungs of Mice by Administration of Recombinant Interleukin 1α in Vivo. Raj K. Puri, William D. Travis, and Steven A. Rosenberg.

Molecular Biology and Genetics

- 780 Mechanism of Reversion of Rous Sarcoma Virus Transformation by Herbimycin A: Reduction of Total Phosphotyrosine Levels Due to Reduced Kinase Activity and Increased Turnover of p60^{v-src}. Yoshimasa Uehara, Yuko Murakami, Yoshikazu Sugimoto, and Satoshi Mizuno.
- *847 Studies on the Control of Gene Expression of the Carcinoembryonic Antigen Family in Human Tissue. Danny Boucher, Denis Cournoyer, Clifford P. Stanners, and Abraham Fuks.
 - 895 Effects of Triiodothyronine and Tamoxifen on Cell Transformation Induced by an Activated c-Ha-ras Oncogene. Cecilia A. Lopez, W-L. Wendy Hsiao, and I. Bernard Weinstein.
- *940 Cytokine Gene Expression during the Generation of Human Lymphokine-activated Killer Cells: Early Induction of Interleukin 1β by Interleukin 2. Elizabeth J. Kovacs, Suzanne K. Beckner, Dan L. Longo, Luigi Varesio, and Howard A. Young.
- *958 Studies of Topoisomerase-specific Antitumor Drugs in Human Lymphocytes Using Rabbit Antisera against Recombinant Human Topoisomerase II Polypeptide. Jaulang Hwang, Shihua Shyy, Allan Y. Chen, Chung-Chin Juan, and Jacqueline Whang-Peng.
- 996 Induction by the Guanosine Analogue Oxanosine of Reversion toward the Normal Phenotype of K-ras-transformed Rat Kidney Cells. Osamu Itoh, Shunsuke Kuroiwa, Sonoko Atsumi, Kazuo Umezawa, Tomio Takeuchi, and Makoto Hori.

Preclinical Pharmacology and Experimental Therapeutics

- *799 Mechanisms of Combined Effects of γ-Interferon and 5-Fluorouracil on Human Colon Cancers Implanted into Nude Mice. Kiyoshi Morikawa, Dominic Fan, Yvonne M. Denkins, Bernard Levin, Jordan U. Gutterman, Shirley M. Walker, and Isaiah J. Fidler
 - 810 Induction of Colony-stimulating Activity in Mice by Injection of Liposomes Containing Lipophilic Muramyl Peptide Derivatives. Anne Galelli, Bernadette Charlot, Nigel C. Phillips, and Louis Chedid.
 - 833 Excretion and Metabolism of Mitoxantrone in Rabbits. Bruno Richard, Gérard Fabre, Isabelle Fabre, and Jean-Paul Cano.
- *838 Sensitization of Noncycling Human Diploid Cells to X-Irradiation by Pretreatment with 9-β-D-Arabinofuranosyladenine. John B. Little and William K. Dahlberg.
- *883 Response of Cultured Human Cell Lines from Rhabdomyosarcoma Xenografts to Treatment with Chloroethylnitrosoureas. Debra G. Smith and Thomas P. Brent.
 - 925 In Vitro Hepatotoxicity of SR 4233 (3-Amino-1,2,4-ben-zotriazine-1,4-dioxide), a Hypoxic Cytotoxin and Potential Antitumor Agent. Anita K. Costa, Margaret A. Baker, J. Martin Brown, and James R. Trudell.
- 936 Inhibition of Experimental Liver Tumor Growth in Mice by Liposomes Containing a Lipophilic Muramyl Dipeptide Derivative. Nigel C. Phillips and Ming S. Tsao.
- 977 Toxicity of Intrathecally Administered Cytotoxic Drugs and Their Antitumor Activity against an Intrathecal Walker 256 Carcinosarcoma Model for Meningeal Carcinomatosis in the Rat. Kimberly L. Kooistra, Moses Rodriguez, and Garth Powis.

Tumor Biology

- *816 Examination of Urokinase Protein/Transcript Levels and Their Relationship with Laminin Degradation in Cultured Colon Carcinoma. Douglas Boyd, Barry Ziober, Subhas Chakrabarty, and Michael Brattain.
 - 821 Correlation between Mammary Tumor and Blood Glucose, Serum Insulin, and Free Fatty Acids in Mice. Taisen Iguchi, Noboru Takasugi, Naomi Nishimura, and Shinichiro Kusunoki.
- *857 Differential Proliferative Response to Linoleate in Cultures of Epithelial Cells from Normal Human Breast and Fibroadenomas. Arun Balakrishnan, Scott Cramer, Gautam K. Bandyopadhyay, Walter Imagawa, Jason Yang, Joel Elias, Craig W. Beattie, Tapas K. Das Gupta, and Satyabrata Nandi.
- *930 Production of Interleukin 1 Activity by Cultured Human Melanoma Cells. Jeannette L. Bennicelli, Jack Elias, Jeffrey Kern, and DuPont Guerry IV.
- *1001 Effects of Human Bone Marrow Stroma on the Growth of Human Tumor Cells. Eva-Susanne Strobel, Hermann Gunther Strobel, Klaus Joachim Bross, Bernd Winterhalter, Heinz-Herbert Fiebig, Johannes Ulrich Schildge, and Georg Wilhelm Löhr.
- *1014 Modulation of Growth and Epidermal Growth Factor Receptor Activity by Retinoic Acid in Human Glioma Cells. W. K. Alfred Yung, Reuben Lotan, Polly Lee, Dafna Lotan, and Peter A. Steck.
 - 1020 Morphological and Immunohistochemical Studies of the Estrogen-induced Syrian Hamster Renal Tumor: Probable Cell of Origin. Alfonso Gonzalez, Terry D. Oberley, and Jonathan J. Li.
- *1029 Bidirectional Control of Membrane Expression and/or Activation of the Tumor Cell IRGpIIb/IIIa Receptor and Tumor Cell Adhesion by Lipoxygenase Products of Arachidonic Acid and Linoleic Acid. Irma M. Grossi, Laurence A. Fitzgerald, Lillian A. Umbarger, Kevin K. Nelson, Clement A. Diglio, John D. Taylor, and Kenneth V. Honn.

CLINICAL AND EPIDEMIOLOGICAL INVESTIGATIONS

Clinical

- 1052 Immunocytochemical Analysis of Estrogen Receptors as a Predictor of Prognosis in Breast Cancer Patients: Comparison with Quantitative Biochemical Methods. Laura B. Kinsel, Eva Szabo, Geoffrey L. Greene, John Konrath, George S. Leight, and Kenneth S. McCarty, Jr.
- 1057 Classification of Lung Cancer Patients and Controls by Chromatography of Modified Nucleosides in Serum. John E. McEntire, Kenneth C. Kuo, Mark E. Smith, David L. Stalling, Jack W. Richens, Jr., Robert W. Zumwalt, Charles W. Gehrke, and Ben W. Papermaster.
- 1063 Clinical Trial of Continuous Infusion Verapamil, Bolus Vinblastine, and Continuous Infusion VP-16 in Drug-resistant Pediatric Tumors. Mitchell S. Cairo, Stuart Siegel, Nick Anas, and Leonard Sender.
- 1067 Comparative Study of Plasminogen Activators in Cancers and Normal Mucosae of Human Urinary Bladder. Yoshihiro Hasui, Junji Suzumiya, Kousuke Marutsuka, Akinobu Sumiyoshi, Seiichi Hashida, and Eiji Ishikawa.

Epidemiological

1045 Analgesics, Cigarette Smoking, and Other Risk Factors for Cancer of the Renal Pelvis and Ureter. Ronald K. Ross, Annlia Paganini-Hill, Joseph Landolph, Vibeke Gerkins, and Brian E. Henderson.

Continued

1049 Coffee Consumption and Digestive Tract Cancers. Carlo La Vecchia, Monica Ferraroni, Eva Negri, Barbara D'Avanzo, Adriano Decarli, Fabio Levi, and Silvia Franceschi. AACR Special Conferences in Cancer Research Future Annual Meetings of the AACR Collected Perspectives in Cancer Research Calendar of Events

1071 Announcements

Eightieth Annual Meeting of the AACR
Travel Grants from the Comprehensive Biomedical Program
of the NCI

1073 Errata

A. K. Verma et al., 48: 5754-5758, 1988. J. H. Edmonson et al., 48: 6584-6586, 1988.

1074 Author Index

NOTE: AACR forms available in the back of this issue-

- Application for Associate Membership
- Advance Registration Form for the 80th Annual Meeting



Cancer Research

The Journal of Cancer Research (1916–1930) | The American Journal of Cancer (1931–1940)

49 (4)

Cancer Res 1989;49:767-1073.

Updated version Access the most recent version of this article at:

http://cancerres.aacrjournals.org/content/49/4.citation

E-mail alerts Sign up to receive free email-alerts related to this article or journal.

Reprints andSubscriptions

To order reprints of this article or to subscribe to the journal, contact the AACR Publications Department at pubs@aacr.org.

Permissions To request permission to re-use all or part of this article, use this link

http://cancerres.aacrjournals.org/content/49/4.citation.

Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC)

Rightslink site.