**Contents**

Asterisks preceding the title refer to studies in humans.

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>3159</td>
<td>Autobiographical Essay.</td>
<td>Alexander Haddow</td>
</tr>
<tr>
<td>3165</td>
<td>Half-life of N-Acetylneuraminic Acid in Plasma Membranes of Rat Liver and Morris Hepatoma 7777.</td>
<td>Erik Harms and Werner Reutter</td>
</tr>
<tr>
<td>3173</td>
<td>* Differential Effects of Rifampicin on Cultured Human Tumor Cells.</td>
<td>Wendell D. Winters, Ada L. Tuan, and Donald L. Morton</td>
</tr>
<tr>
<td>3180</td>
<td>The Binding of Vinblastine to Tubulin and to Particulate Fractions of Mammalian Brain.</td>
<td>Richard J. Owellen, Douglas W. Donigian, Carol A. Hartke, Ruth M. Dickerson, and Michael J. Kuhar</td>
</tr>
<tr>
<td>3187</td>
<td>Reduction and Metabolism of Dihydrohomofolate in Rhesus Monkeys.</td>
<td>Lakshmi C. Mishra, Amar S. Parmar, and J. A. R. Mead</td>
</tr>
<tr>
<td>3192</td>
<td>Solubilization and Activation of Mammalian Melanoma Particulate Tyrosinase by Lipase Digestion.</td>
<td>Yu Min Chen.</td>
</tr>
<tr>
<td>3197</td>
<td>* Studies on the Lymphocyte 5'-Nucleotidase in Chronic Lymphocytic Leukemia, Infectious Mononucleosis, Normal Subpopulations, and Phytotoxemagglutinin-stimulated Cells.</td>
<td>F. Quagliata, D. Faig, M. Conklyn, and R. Silber</td>
</tr>
<tr>
<td>3203</td>
<td>Immunological Stimulation with Modified Lymphoma Cells in a Minimally Responsive Tumor-Host System.</td>
<td>Morton D. Prager, F. Samuel Baechtel, R. J. Ribble, Charles M. Ludden, and J. M. Mehta</td>
</tr>
<tr>
<td>3225</td>
<td>Cell Surface Glycosyltransferase Activity in Normal and Neoplastic Intestinal Epithelium of the Rat.</td>
<td>J. Thomas LaMont, Milton M. Weiser, and Kurt J. Isselbacher</td>
</tr>
<tr>
<td>3229</td>
<td>Studies of Prostaglandins in Rat Mammary Tumors Induced by 7,12-Dimethylbenz(a)anthracene.</td>
<td>W. C. Tan, O. S. Privett, and M. E. Goldyne.</td>
</tr>
<tr>
<td>3232</td>
<td>Multiple Carcinogenic Effects of the Ethynitrouracil Precursors Ethylurea and Sodium Nitrate in Hammers.</td>
<td>Mario Rustia.</td>
</tr>
<tr>
<td>3245</td>
<td>Influence of Insulin on Growth and Metabolism of 7,12-Dimethylbenz(a)anthracene-induced Mammary Tumors.</td>
<td>Nadine D. Cohen and Russell Hilf</td>
</tr>
<tr>
<td>3253</td>
<td>Estrogen Receptor Content and Hormone-responsive Growth of Mouse Mammary Tumors.</td>
<td>Mels Sluyser and Roberta Van Nie</td>
</tr>
<tr>
<td>3258</td>
<td>Potentiation of Bleomycin by an Antifungal Polyene, Pentamycin, in Transformed Animal Cells.</td>
<td>Tadashi Nakashima, Michihiko Kuvano, Katsuko Matsui, Sohtaro Komiyama, Ikuichiro Hiroto, and Hideya Endo</td>
</tr>
<tr>
<td>3262</td>
<td>Tumor Regression and Enhancement Resulting from Immunotherapy with Bacillus Calmette-Guérin and Neuraminidase.</td>
<td>Frank C. Sparks and James H. Breeding</td>
</tr>
<tr>
<td>3270</td>
<td>Dietary Effects on Stearyl Coenzyme A Desaturase in Morris Hepatomas.</td>
<td>Ten-ching Lee, Nelson Stephens, and Fred Snyder</td>
</tr>
<tr>
<td>3274</td>
<td>Mechanism of Cyclophosphamide Transport by L5178Y Lymphoblasts in Vitro.</td>
<td>Gerald J. Goldenberg, H. Bernard Land, and Douglas V. Cormack</td>
</tr>
<tr>
<td>3283</td>
<td>Lack of an Effect of Tumor-promoting Phorbol Esters and of Epidermal G1 Chalone on DNA Synthesis in the Epidermis of Newborn Mice.</td>
<td>Stefan Bertisch and Friedrich Marks</td>
</tr>
<tr>
<td>3289</td>
<td>Microsome-dependent Binding of Benzo(a)-pyrene and Aflatoxin B1 to DNA, and Benzo(a)-pyrene Binding to Aflatoxin-conjugated DNA.</td>
<td>Kroum Alexandrov and Charles Frayssinet</td>
</tr>
<tr>
<td>3296</td>
<td>Autoradiographic and Cytophotometric Analyses of the Resting Stages of the L1210 Ascites Tumor.</td>
<td>N. R. Hartmann and P. Dombernowsky</td>
</tr>
<tr>
<td>3303</td>
<td>An Ultrastructural Study of C-type Virion Assembly in Mouse Cells.</td>
<td></td>
</tr>
</tbody>
</table>

Volume 34 / Number 12 / December 1974
3311 Purification and Properties of the Major Phenylalanyl Transfer RNA Species in Drug-resistant Ehrlich Tumor Cells.  
Masao Hayashi and A. Clark Griffin.

3318 * Two Forms of Repair in the DNA of Human Cells Damaged by Chemical Carcinogens and Mutagens.  
James D. Regan and R. B. Setlow.

3326 * Clinical Trials and Pharmacokinetics of Intermittent High-Dose Methotrexate: "Leucovorin Rescue" for Children with Malignant Tumors.  

3332 The Intracellular Concentration Dependence of Antifolate Inhibition of DNA Synthesis in L1210 Leukemia Cells.  
F. M. Sirotnak and R. C. Donsbach.

3341 Effect of Neocarzinostatin on DNA Synthesis in L1210 Cells.  
Hiroyoshi Sawada, Kouichi Tatsumi, Masataka Sasada, Shigeru Shirakawa, Toru Nakamura, and Gyoichi Wakisaka.

3347 * Further Investigation of a Variant of the Placental Alkaline Phosphatase in Human Hepatic Carcinoma.  
Kazuya Higashino, Shunjiro Kudo, and Yuichi Yamamura.

3352 * Carcinofetal Human Isoferritins in Placenta and HeLa Cells.  
James W. Drysdale and Robert M. Singer.

3355 Short-Term Effects of Free Fatty Acids on the Regulation of Fatty Acid Biosynthesis in Ehrlich Ascites Tumor Cells.  
Richard McGee and Arthur A. Spector.

3363 Sensitivity of a Lung Cell in the Developing Mouse Embryo to Tumor Induction by Urethan.  
Taisei Nomura.

3373 Tumor Induction in the Progeny of Mice Receiving 4-Nitroquinoline 1-Oxide and N-Methyl-N-nitrosourethan during Pregnancy or Lactation.  

3379 Demonstration of Glucose 6-Phosphatase Activity in the Oval Cells of Rat Liver and the Significance of the Oval Cells in Azo Dye Carcinogenesis.  
Katsuhiko Ogawa, Takashi Minase, and Tameo Onoe.

3387 Inhibition by Cysteamine-HCl of Oncogenesis Induced by 7,12-Dimethylbenz(a)anthracene without Affecting Toxicity.  
Hans Marquardt, Michael D. Sapozink, and Morris S. Zedeck.

3391 Alteration of Tumor Response in Rat Liver by Carbon Tetrachloride.  
H. Wayne Taylor, William Lijinsky, Paul Netteheim, and Catherine M. Snyder.

3396 A Quantitative Spectrophotometric Method to Measure Plant Lectin-induced Cell Agglutination.  
Ronald B. Luftig, Paul N. McMillan, and Dani P. Bolognesi.

3403 Properties and Intracellular Localization of Ehrlich Ascites Tumor Cell Glutaminase.  
Zoran Kovačević.

3408 The Effect of Benzo(a)pyrene on the Basal and Isoproterenol-stimulated Levels of Cyclic Adenosine 3',5'-Monophosphate in Mouse Epidermis.  
Ajit K. Verma and Andrew W. Murray.

3414 Incorporation of Precursors and Inhibitors of Nucleic Acid Synthesis into Hepatomas and Liver of the Rat.  
M. A. Lea, J. Bullock, F. L. Khalil, and H. P. Morris.

3421 A Microsomal Membrane Alteration following Ethionine Intoxication.  
Robert Kisilevsky and Larry Weiler.

3428 * Relationship between Urinary β-Aminoisobutyric Acid and Transfer RNA Turnover in Cancer Patients.  
Henrik Rist Nielsen, Kaare Nyholm, and Knud-Erik Sjölin.

3433 Bleomycin-induced Damage in Prematurely Condensed Chromosomes and Its Relationship to Cell Cycle Progression in CHO Cells.  

3440 A Leukemic Lymphoproliferative Disease in A/J Mice following Inoculation with Blood from Patients with Acute Infectious Hepatitis.  
M. Yoeli, R. A. Burningham, and M. Habib.

3446 Phorbol-12-myristate-13-acetate Effect on Cyclic Adenosine 3',5'-Monophosphate Levels in Mouse Skin and Inhibition of Phorbol-myristate-acetate-promoted Tumorigenesis by Theophylline.  
Sidney Belman and Walter Troll.

3456 In Vitro Growth of an Attenuated Mouse Leukemia Virus.  
Elizabeth Stefanski and Werner H. Kirsten.

3461 Intranuclear Distribution of DNA Repair Synthesis Induced by Chemical Carcinogens or Ultraviolet Light in Human Diploid Fibroblasts.  
Curtis C. Harris, Robert J. Connor, Frank E. Jackson, and Michael W. Lieberman.

3469 The Possible Correlation of Growth Rate and Expression of Transformation with Temperature-dependent Modification in High-Molecular-Weight Membrane Glycoproteins in Mammalian Cells Transformed by a Wild-type and by a Thermosensitive Mutant of Avian Sarcoma Virus.  
M. Rieber and J. C. Irwin.

3474 High-Pressure Liquid Chromatographic Analysis of Benzo(a)pyrene Metabolism and Covalent Binding and the Mechanism of Action of 7,8-Benzoflavone and 1,2-Epox-3,3,3-trichloropropane.  

3481 Cancer Immunity after Treatment of Ehrlich Tumor with Diptheria Toxin.  
Silvio Buzzi and Luciana Buzzi.

3487 Effect of Route of Administration and Effusions on Methotrexate Pharmacokinetics.
The treatment of Hodgkin’s disease has improved steadily. Over 30 years ago, René Gilbert (Acta Radiol., 12: 523, 1931) and Nándor Ratkocz (Strahlentherapie, 56: 325, 1936) in Europe advocated intensive radiotherapy for Hodgkin’s based on the concept that generalized disease evolves from a localized stage. Since then, improved radiation sources have allowed more aggressive, systematized radiotherapy. More recently, a new histopathological classification (R. J. Lukes), more detailed clinical staging schemes, lymphangiography, and chemotherapy have encouraged further progress.

M. Vera Peters of Toronto and Henry S. Kaplan have spearheaded improved radiotherapy of Hodgkin’s disease during the past two decades.

M. Vera Peters (b. 1911 in Toronto) was graduated from the University of Toronto Medical School in 1934. Soon thereafter she became associated with the Ontario Institute of Radiotherapy at the Toronto General Hospital, which later evolved into the Ontario Cancer Institute incorporating Princess Margaret Hospital. Her analysis of survival experiences in Hodgkin’s disease at Toronto in 1950 (Am. J. Roentgenol., 63: 299, 1950) was an important impetus to more aggressive radiotherapy. The crude five-year survival rate at the Ontario Cancer Institute has risen gradually from 35 to 70% (J. Am. Med. Assoc., 223: 53—59, 1972). Further changes in therapeutic approach resulted in the division of patients with Hodgkin’s disease into several major clinics according to pathological types.

Henry Seymour Kaplan (b. 1918 in Chicago) was graduated from Rush Medical College in 1940, trained in radiology at the University of Minnesota, and from 1948 to 1972 was Professor and Chairman of the Department of Radiology at Stanford University School of Medicine, Palo Alto, California. He became the D’Ambrogio Professor at Stanford in 1972. His contributions include basic studies in radiobiology and on the role of radiation and viruses in rodent leukemia. He is a member of the National Academy of Science and was President of the American Association for Cancer Research, from 1966 to 1967. Kaplan accelerated the use of radical radiation of regionally localized Hodgkin’s disease (Radiology, 78: 533, 1962) and has achieved over 70% five-year survival.


We are indebted to Drs. Peters and Kaplan for their portraits.