Contents

J. Borsa and G. F. Whitmore.

745  Detection by Immunodiffusion of Mouse Mammary Tumor Virus in Milk Samples and Correlation with Tumor Development.  
Phyllis B. Blair.

749  Direct Membrane Immunofluorescence Reaction of Burkitt's Lymphoma Cells in Culture.  
Gerald Goldstein, George Klein, Gary Pearson, and Peter Clifford.

Victor Bedoya, Philip M. Grimley, and Alan S. Rabson.

763  A Study of Thymic Lymphosarcoma Developing in Magnesium-deficient Rats.  

776  Enhancement of Metastases by Antilymphocyte Serum in Allogeneic Murine Tumor System.  
Sharad D. Deodhar and George Crile, Jr.

780  Comparative Effects of Purified Diets and a Natural Food Stock Ration on the Tumor Incidence of Mice Exposed to Multiple Sublethal Doses of Total-Body X-irradiation.  

789  Coordinated Changes in Thymidine 5'-Monophosphate Metabolism of Leukocytes following Vincristine Administration to Patients with Acute Granulocytic Leukemia.  
DeWayne Roberts, Thomas C. Hall, and David Rosenthal.

795  Profiles of Total Ribonucleoprotein Particles from Normal Rat Liver, Primary Liver Tumors, and Novikoff Hepatoma.  
Gaston de Lamirande and D. J. S. Arora.

800  A Comparison of the Biologic Activities and of the Chemical Properties of Chlorambucil and Trenimon.  

A. M. Gotto, M. L. Belkhoide, and O. Touster.

812  Metabolism of the Glucuronide of N-Hydroxy-2-acetylaminofluorene in the Rat.  
Charles C. Irving and Ralph Wiseman, Jr.

817  Synthesis of RNA, Protein, and DNA in the Liver of Normal and Hypophysectomized Rats after Partial Hepatectomy.  
Hartmut M. Rabes and Hermann Brändle.

823  Immunoglobulin Synthesis by Human Reticulum Sarcoma Cells in Vivo and during Long-Term Culture in Vitro.  
B. D. Clarkson, G. J. Thorbecke, E. de Harven, and C. Miles.


848  Combined Effects of Chemotherapy and Immunity against Leukemia L1210 in DBA/2 Mice.  
Enrico Mihich.

855  The Effect of Storage at Low Temperatures on the Mouse Strain Specificity of the 6C3HED Ascites Tumor.  
J. F. Morgan, M. D. Heuchert, and H. D. Kirk.

862  Cytologic and Cytochemical Effects on Primary Mouse Kidney Tissue and Lung Organ Cultures after Exposure to Whole, Fresh Smoke and Its Gas Phase from Unfiltered, Charcoal-filtered, and Cigar Tobacco Cigarettes.  
Cecile Leuchtenberger and Rudolph Leuchtenberger.

880 Glucose 6-Phosphate Dehydrogenase Isoenzyme Patterns and Chromosomes in Primary Liver Tumors of the Rat. Samuel H. Hori and Motomichi Sasaki.

892 Life Term Studies on the Effect of Trace Elements on Spontaneous Tumors in Mice and Rats. Masayoshi Kanisawa and Henry A. Schroeder.


912 The Effect of Phleomycin on the Replication of Papovavirus SV40 and Other DNA Viruses in Simian Cells. Satvir S. Tevethia and Fred Rapp.

918 Nucleolar Fragmentation in L Cells Exposed to Quinacrine in Vitro. Martha E. Fedorko and James G. Hirsch.


938 Observations on Leukemia in Wistar Furth Rats. William C. Moloney, Anthony E. Boschetti, and Vincent King.

947 Inhibition of Tumor Induction in Two-Stage Carcinogenesis on Mouse Skin. B. L. Van Duuren, A. Sivak, C. Katz, and S. Melchione.


962 Stability of Binding of Label from N-Hydroxy-N-2-fluorenlyacetamide to Intracellular Targets, Particularly Deoxyribonucleic Acid in Rat Liver. David Szafarz and John H. Weisburger.

Brief Communications:


971 Protection against Mammary Tumors in Mice by Immunization with Purified Mammary Tumor Virus Preparations. Diane S. Burton, Phyllis B. Blair, and David W. Weiss.

Letter to the Editor:


976 Announcements.

976 Erratum.

COVER LEGEND

In 1934 the Chicago industrialist, Michael W. McArdle, bequeathed a sum of money to the University of Wisconsin for cancer research. This bequest, together with matching funds from the Public Works Administration, was used to construct a building for this purpose in 1940 at the Medical School on the Madison campus—the McArdle Laboratory for Cancer Research.

Harold P. Rusch (b. 1908) was the first director and continues as the director and also as chairman of the Medical School's Department of Oncology. Dr. Rusch was editor of CANCER RESEARCH during the years 1950–1964 and was President of the American Association for Cancer Research 1953–1954.

In 1961 the National Institutes of Health awarded a grant to the University of Wisconsin for the construction of an 11-story building, the new McArdle Laboratory for Cancer Research. The move from the old to the new laboratory was made in 1964.

The present McArdle Laboratory accommodates a staff of thirteen senior investigators, as well as numerous graduate students, postdoctoral fellows, and supporting personnel. The research is concerned with fundamental aspects of the cancer problem, such as the mechanisms involved in carcinogenesis by chemicals and by viruses; the biochemical processes and control mechanisms associated with growth and differentiation; and studies on antitumor agents. In 1957 the potent antimetabolite, 5-fluorouracil (5-FU), was developed by Charles Heidelberger of the McArdle Laboratory.

The cover presents two views of the McArdle Laboratory: the original building (c. 1945, lower right) and the present structure (center). The portrait is of Dr. Rusch, to whom we are indebted for the illustrations.