Contents

1 RNA Synthesis in Ascites Hepatoma AH-130 Cells of Rats. Tetsuya Fukuda, Takiko Akino, Minoru Amano, and Mitsuo Izawa.


18 Further Studies on Serum Protein Formation by Chimeras: Induction of Chimerism with a Chemical Carcinogen. Yuko Kikuchi and Mildred E. Phillips.


41 Spontaneous Leukemia in Fischer Rats. William C. Moloney, Anthony E. Boschetti, and Vincent P. King.


58 Polyribosome Disaggregation in Rat Liver following Administration of Tannic Acid. Janardan K. Reddy, Masahiro Chiga, Curtis C. Harris, and Donald J. Svoboda.


82 Metabolism of an Antineoplastic Methylhydrazine Derivative in a P815 Mouse Neoplasm. W. Kreis.

90 The Electrokinetetic Surfaces of Human Cells of Lymphoid Origin and Their Ribonuclease Susceptibility. L. Weiss and L. F. Sinks.

95 Alteration of Native DNA Transcription by the Mutagen Hydroxylamine. Andrew T. Taylor, Susan B. Crist, and Oliver W. Jones.


112 Differences in the Action of Nitrosomethyurea and Streptozotocin. Herbert S. Rosenkranz and Howard S. Carr.

118 An Early Effect of 7,12-Dimethylbenz(a)anthracene on Rat Mammary Gland DNA Synthesis. Takeshi Tominaga, Paul R. Libby, and Thomas L. Dau.


133 Effect of L-Asparaginase on DNA Synthesis in Regenerating Liver and in Other Dividing Tissues. F. F. Becker, R. Baserga, and J. D. Broome.

138 Analysis of Contrasting Effects of Exogenous DNA on L1210 Cell Viability. J. Leslie Glick.


COVER LEGEND

The Editors extend their cover salute this month to Michael B. Shimkin, former Editor of this Journal. Born in Tomsk, Siberia, in 1912, he came to San Francisco as a child, received the M.D. degree from the University of California in 1937, and began his career in cancer research at that time at Harvard University as a Research Fellow of the then newly created National Cancer Institute. From 1947 to 1954 he was in charge of the Laboratory of Experimental Oncology in San Francisco, supported jointly by the University of California and the National Cancer Institute. He then joined the Cancer Institute in Bethesda as Chief of the Biometry and Epidemiology Branch and, in 1960, was appointed Associate Director for Field Studies. From 1963 to July of last year he was Chief of Cancer Biology and Professor of Medicine at Fels Research Institute, Temple University School of Medicine. He is now Professor of Medicine and Coordinator of the Regional Medical Program at the University of California at San Diego.

Dr. Shimkin is a true scientific generalist, having achieved distinction not only in experimental and clinical studies, but also in the history and philosophy of cancer. He is a talented popularizer, and his lectures and writings are brilliantly informative to medical and lay audiences and readers. He has traveled widely all over the world in connection with international cancer programs, and, as an expert on the Soviet Union, he has repeatedly gone to that country as a member of various scientific missions.


211 Biological and Technical Aspects of Nucleic Acid Synthesis in Cultures of Mammary Tumors. S. Takizawa, J. J. Furth, and J. Furth.


236 Incorporation of Iododeoxyuridine125I into the DNA of L1210 Leukemia Cells during Tumor Development. Kurt G. Hofer and Walter L. Hughes.

244 E Antigen: A Cell-Surface Antigen of C57BL Leukemias. Tadao Aoki, Burghard Stuck, Lloyd J. Old, Ulrich Hammerling, and Etienne de Harven.

252 Letter to the Editor: Cancer of the Nasopharynx. R. Schoental.

253 Carcinoma of the Colon and Antecedent Epithelium. Walter J. Burdette.

257 Books Received.

258 Special Announcement: Travel to the Tenth International Cancer Congress.

258 Announcements.

259 Instructions to Authors.

Shimkin has been in the forefront of many advances in cancer. He established the pulmonary tumor response in mice as a quantitative bioassay procedure, as well as a model for biomathematical formulations. His quantitative studies on polycyclic hydrocarbons (with W. R. Bryan) are classical. He discovered the induction of interstitial cell testicular tumors in mice and the inhibition of mammary carcinogenesis in mice by adrenalectomy. Biometric analyses of clinical data led Shimkin to important conclusions on the natural history and effects of treatment in leukemia, lymphoma, and breast cancer. His analyses were influential in demolishing the dogma of radical surgery for cancer of the breast and lung. He has been a pioneer in studies on the relationship of smoking to lung cancer and his deductions reported in Advances in Cancer Research, Vol. 3, published in 1955, preceded by 7 years the 1962 report of the Surgeon General of the U.S.
