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2568 Local Vascular Changes Induced by the Cocarcinogen, Phorbol Myristate Acetate. A. Janoff, A. Klassen, and W. Troll.
This issue commemorates the establishment of the cocarcinogenesis concept by Murray J. Shear (b. 1899) and Isaac Berenblum (b. 1903).

Shear, Associate Director, Interdisciplinary Communications Program, Smithsonian Institution (Washington, D.C.), and formerly Chief of the National Cancer Institute’s Laboratory of Chemical Pharmacology, reported in 1938 that a basic fraction of creosote oil enhanced the production of mouse skin tumors by 3:4-benzopyrene. He considered this fraction to be the source of a “co-carcinogen” [M. J. Shear, Studies in Carcinogenesis. V. Methyl Derivatives of 1:2-Benzanthracene. Am. J. Cancer, 33: 499-537 (esp. p. 532), 1938]. Subsequent investigations by Shear and his associates uncovered cocarcinogenic action in conjunction with other carcinogens (M. J. Shear, Studies in Carcinogenesis. VII. Compounds Related to 3:4-Benzpyrene. Am. J. Cancer, 36: 211-228, 1939; S. Cabot, N. Shear, and M. J. Shear, Studies in Carcinogenesis. XI. Development of Skin Tumors in Mice Painted with 3:4-Benzpyrene and Creosote Oil Fractions. Am. J. Pathol., 16: 301—312, 1940; R. D. Sall and M. J. Shear, Studies in Carcinogenesis. XII. Effect of the Basic Fraction of Creosote Oil on the Production of Tumors in Mice by Chemical Carcinogens. J. Natl. Cancer Inst., 1: 45—55, 1940).


Dr. Shear was President of the American Association for Cancer Research in 1960—1961; he appears left in an earlier photograph by courtesy of the National Institutes of Health Photographic Research Section. Right, Dr. Berenblum, ca. 1945.
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