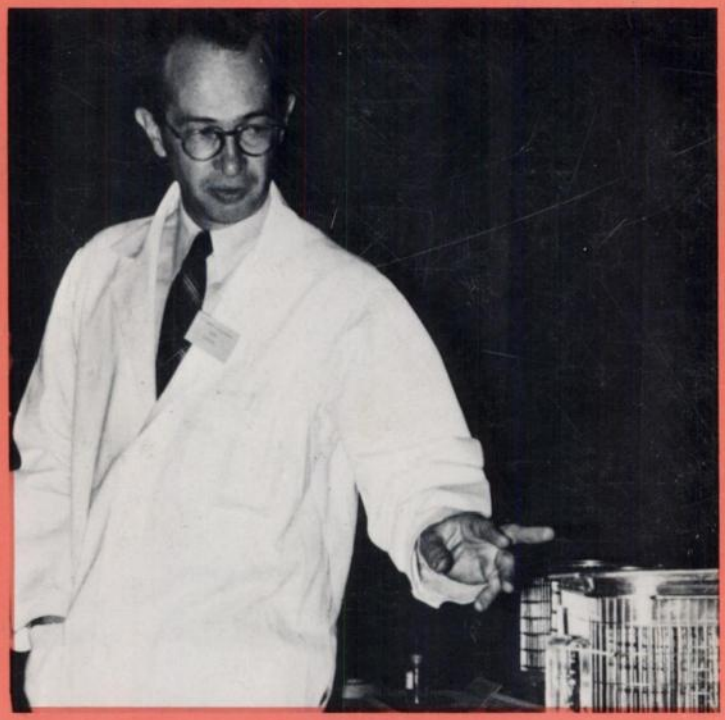
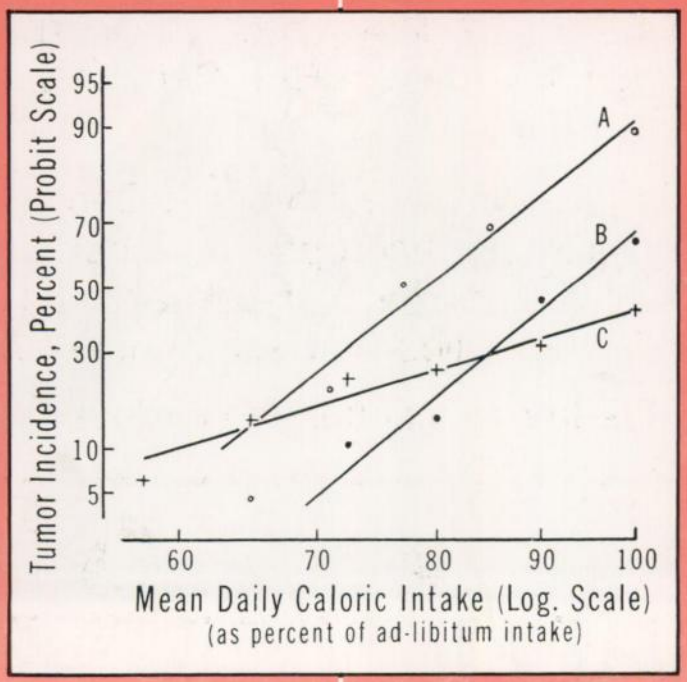
AMERICAN ASSOCIATION FOR CANCER RESEARCH
Ut Cancrum Vincamus
1907

Cancer Research

VOLUME 38 • NO. 1 CNREA8 • PP 1-240
January 1978





Announcements from the Editor—p. 230

Cellulose ion exchangers should be spherical too

DEAE-Sephacel® is

DEAE-Sephacel
Total capacity: 1.4 meq/g
Wet diameter: 40–160 μm

The spherical form of DEAE-Sephacel gives you easy, uniform packing without the generation of fines. It improves your results because it reduces zone broadening and ensures uniform, high flow rates. DEAE-Sephacel is reproducible from batch-to-batch.

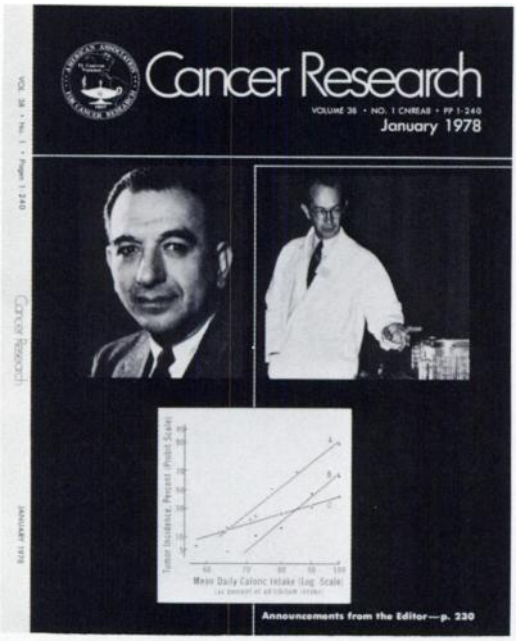
No precycling is needed because DEAE-Sephacel is ready swollen. Its controlled macroporous structure, which is almost completely independent of pH and ionic strength, gives high protein capacities and excellent recoveries.

DEAE-Sephacel is the only spherical cellulose ion exchanger.

Pharmacia Fine Chemicals
Division of Pharmacia Inc.
Piscataway, New Jersey 08854
Phone (201) 469-1222

Pharmacia Fine Chemicals

COVER LEGEND



The role of nutrition in the genesis and growth of cancer has been a matter of speculation for many years. Since neoplasms are derived from and are dependent upon the host, the nutritional state must influence neoplasms; the questions, however, are the extent of such influences and whether specific dietary components can be incriminated.

During the two decades, 1935 to 1955, Albert Tannenbaum conducted a series of careful experiments, at the Michael Reese Hospital (now Michael Reese Medical Center) in Chicago, on nutrition in relation to cancer in mice. Caloric restriction, by one-third of the *ad libitum*, led to a reduction in the appearance of many spontaneous and induced tumors. The growth of established tumors was also affected but less impressively than their genesis. Clinical and statistical findings suggest that some tumors in man are partly dependent on the nutritional state, but this does not appear to be a practical means of arresting the development or growth of tumors.

Related but distinctly different aspects of nutrition and cancer are the introduction of carcinogens into foodstuffs and the modification of the metabolism of certain carcinogens by dietary constituents. Example of the former is aflatoxin in the diet of tropical populations that is probably associated with hepatoma. Example of the latter is the protective effect of riboflavin in hepatomagenesis in rats ingesting azo dyes in the diet.

The 1953 review by Tannenbaum and Silverstone (Advan. Cancer Res., *1:* 451–501, 1953) is a landmark in the field of nutrition and experimental carcinogenesis. Albert Tannenbaum, born in Chicago in 1901, obtained his M.D. degree in 1930 at Rush Medical College and spent his career in cancer research at Michael Reese Hospital studying factors and mechanisms in carcinogenesis. He retired in 1972 and moved to La Jolla, California. His associate, Herbert Silverstone (1913–1956), was a native of Philadelphia and obtained his doctorate in biochemistry at the University of Chicago in 1949.

A recent resurgence of interest in the nutritional aspects of cancer causation has led to the formation of a special program in diet and cancer under the National Cancer Act. A symposium on Nutrition in the Causation of Cancer (Cancer Res., *35* (Part 2)*:* 3231–3550, 1975) summarizes the current views in the field.

We are indebted to Dr. Tannenbaum for the photographs of himself (*left*) and Silverstone (*right*). The graph summarizes the effects of caloric restriction on the formation of three types of neoplasms in mice: *A*, spontaneous mammary carcinoma; *B*, spontaneous hepatoma; *C*, induced skin tumors.