



Cancer Research

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PART 1 OF TWO PARTS



U.S. News & World Report BOOMS IN MIDST OF RECESSION

LATEST FINDINGS:
DOES SMOKING SHORTEN LIFE?

EXCLUSIVE INTERVIEW WITH
Dr. E. C. Hammond
of American Cancer Society

Reader's Digest

In This Issue of READER'S DIGEST

NICOTINE
The Smoker's Enigma
PAGE 25

also

Your Liver Is
Your Life
PAGE 164

MEDICAL WORLD NEWS

IS THE WARNING GOING UNHEEDED?

Newsweek

SMOKING AND HEALTH

SMOKING POLLUTES YOU AND EVERYTHING ELSE

American Cancer Society

Cancer news

Special Research Issue
Smoking, Interpersonal Violence, Pleasure & Cancer
Research Halfway to Victory
Carcinogens in Environment

World Smoking & Health

Tobacco: Not Lost to G.N.P.
F.V. Ad Ban: Unpleasant Surprise

DRINKING AND DEATH RATES RISING IN STATES WITH HIGHEST USE OF ALCOHOL

1978-1979

A CANCER RESEARCH SOCIETY

New York, New York

A page of information on flow cytometry from Ortho.

State-of-the-art cell sorting and analysis

Ortho announces the most powerful, precise, and versatile instrument for cell sorting and analysis ever available commercially: the Ortho Cytofluorograf™ System 50. It combines a rapid cell sorter (based on the electrostatic droplet deflection principle) with a flexible, wide-ranging analysis package in a single versatile unit.

Ortho System 50 for analysis.

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with the Cytofluorograf System 50

angle scatter. A photomultiplier tube provides for measuring wide-angle scatter.

12 measurement parameters.

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Protocols No. 25 describes discrimination of mitotic phases by cytofluorographic analysis.

We would like to bring your attention to an application note: *Discrimination of G₀, G₁, S, G₂ and M phases by Cytofluorographic Analysis* contributed by Z. Darzynkiewicz, Ph.D. of Memorial Sloan Kettering Cancer Center, New York, No. 25 in the Ortho Protocols series.

It includes some interesting computer-drawn histograms in its description of how to distinguish mitotic cells from cells in interphase based on differences in chromatin structure. Methods and results are described, with discussion and references.

For a copy of Protocols No. 25, write or call Ortho Instruments

New brochure available on Ortho Cytofluorograf™ systems for flow cytometry.

Complete details are given on Ortho Cytofluorograf systems in a new brochure. It lists and describes the different combinations of Cytofluorograf modules that permit

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For any of the information offered on this page, or for additional data about Ortho Cytofluorograf instruments, accessories, and technology, write or phone the Research Instruments Division.



ORTHO INSTRUMENTS
410 UNIVERSITY AVE., WESTWOOD, MA 02090
CYTOFLUOROGRAP

COVER LEGEND



The American Cancer Society, in the early 1950's, mounted a prospective study on the relation of smoking and lung cancer, in which 22,000 American Cancer Society volunteers followed about 188,000 men. The study was organized and conducted by Dr. E. Cuyler Hammond (*left*) and Dr. Daniel Horn (*right*), statisticians of the American Cancer Society.

The results of the American Cancer Society study (1) were published in 1958 and were similar to those of the studies of Doll and Hill (2) in Great Britain and of Dorn (3) on American veterans. These prospective epidemiological studies all

clearly related smoking to lung cancer and to an accelerated mortality rate from heart disease. The results led to official statements in Great Britain and in the United States (4) that cigarette smoking is a health hazard and is causally related to lung cancer.

Professional and public communications media have repeatedly highlighted the findings, all uniformly reiterating that smoking, especially of cigarettes, is a major health hazard. In spite of this information, the consumption of cigarettes has not been reduced significantly. In the United States lung cancer continues to be the number one neoplastic killer of men, and it has now risen to number three among women.

Pictured are Dr. Hammond and Dr. Horn, in 1952, the frontispiece of their 1958 American Cancer Society report, and seven examples of popular press and poster disseminations of information.

1. Hammond, E. C., and Horn, D. Smoking and Death Rates—Report on Forty-four Months of Follow-up of 187,783 Men. I. Total Mortality. *J. Am. Med. Assoc.*, 166: 1159–1172, 1958.
2. Doll, R., and Hill, A. B. Lung Cancer and Other Causes of Death in Relation to Smoking; A Second Report on the Mortality of British Doctors. *Brit. Med. J.*, 2: 1071–1081, 1956.
3. Dorn, H. F. Tobacco Consumption and Mortality from Cancer and Other Diseases. *Public Health Rept. U. S.*, 74: 581–593, 1959.
4. Advisory Committee to Surgeon General, USPHS. Smoking and Health. Washington: Government Printing Office, 1964.

M. B. S.

A new series—

Cancer Campaign

Editor-in-Chief: E. Grundmann, Munster

The "Cancer Campaign" Series provides the latest developments in prevention, therapy, and post-clinical care in a cooperative relationship with the cancer patient. It underscores and examines the importance, possibilities, and requirements of all phases of cancer prophylaxis providing medical practitioners, physicians, and scientists with crucial, up-to-date, practice-oriented information about recent developments and trends in the fight against cancer.

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CR/78



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May, 1979

The Bristol-Myers Company presents an annual award to a scientist making an outstanding contribution in cancer research. The candidates for the Award are to be nominated by medical schools, free-standing hospitals and cancer research centers. Only one nomination from each institution is permitted.

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