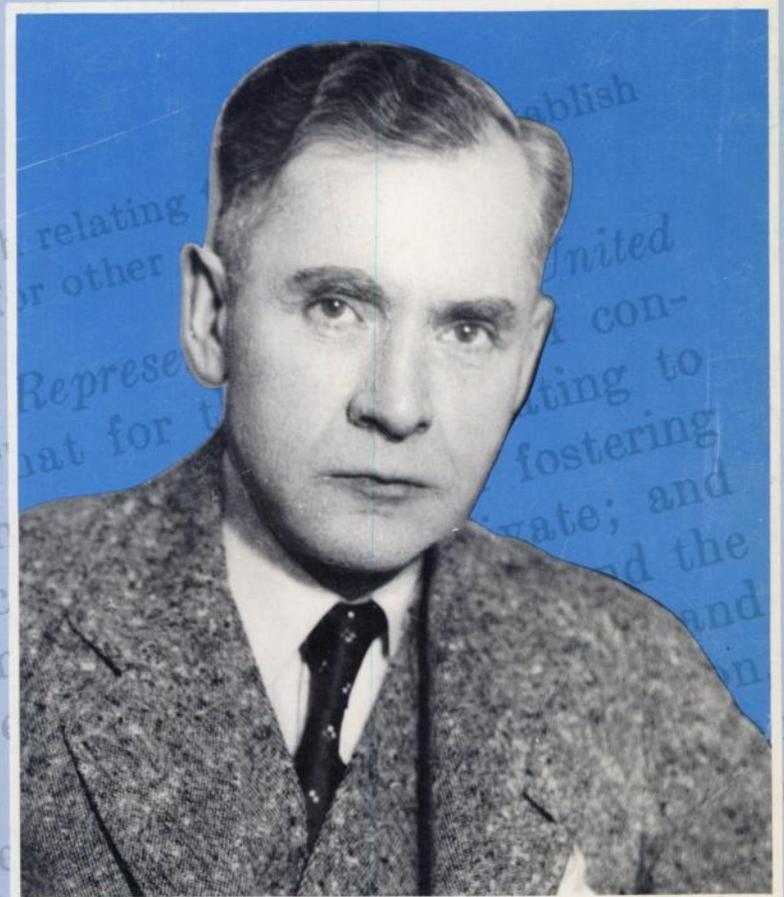


Cancer Research

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PUBLIC
[CHAPTER 565—1ST SESS.]
[S. 2067]
AN ACT*
...ster, and aid in coordinating research relating to...
...National Cancer Institute; and for other...
...Representative... United...
...fostering...
...ate; and...
...and the...
...all...
...which shall be known as the "Institute").
...Public Health Service (hereinafter...
...is authorized and directed for the...
...its provisions, through the Institut...
...al Cancer Advisory Council hereinaft...
...foster researches, investigations, exp...
...to the cause, prevention, and methods...
...of researches conducted by...
...other agencies, org...

A page of information on flow cytometry from Ortho.

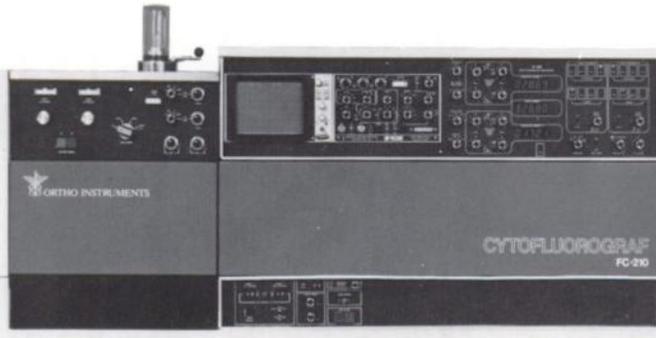
State-of-the-art cell sorting and analysis

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.

Its dual-laser excitation system provides three modes of excitation. There are two single individual-excitation sources for different purposes: a .8 milliwatt helium-neon laser for ultra-high-precision scatter measurements, and a 4-watt argon laser for fluorescence measurements.

There are four detectors: two are photomultiplier tubes for broad visible-range response, two are solid-state photo sensors for axial light loss and narrow forward-



with the Cytofluorograf System 50

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

12 measurement parameters.

The System 50 Cytofluorograf permits for the first time the yielding of morphological information by a flow cytometric instrument. Because pulse height analysis, pulse area analysis, and pulse width analysis can be selected for every detector output, a total of 12 distinct measurement parameters is available with the

System 50. Other features of the system include two bi-dimensional regions of interest, dual histogram multi-channel analyzer with cytogram mode, ultra-sensitive optics, and easy sample entry.

Complete details of System 50 are available in a new brochure available from your Ortho Instruments representative or direct from Ortho Instruments.

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

you to build a flow cytometry system that precisely meets your present needs and can be modified to suit any future requirements.

With both mercury-arc and dual-laser illumination measurement modules, the new Ortho Cytofluorograf systems offer resolution, sensitivity and versatility unmatched by any other commercially available flow cytometric equipment.

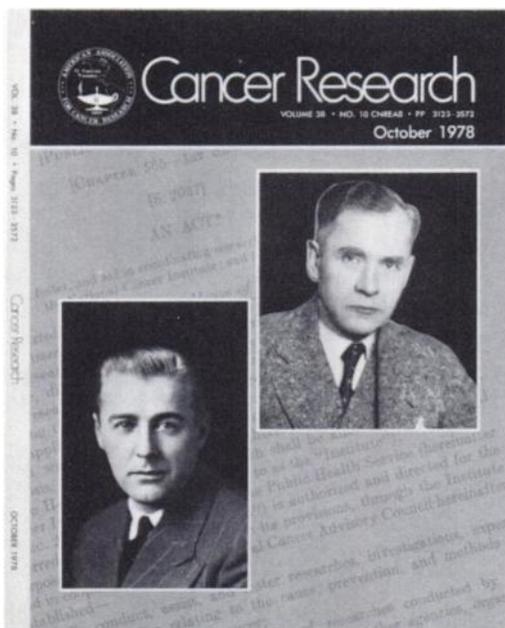
For a copy of this new brochure, phone or write Ortho Instruments.

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.



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CYTOFLUOROGRAF

COVER LEGEND



This month *Cancer Research* extends its cover salute to Homer T. Bone and Warren G. Magnuson, for their roles in the development and enactment into law of the National Cancer Institute Act of 1937 (PL 244, 75th Congress).

The legislative processes leading to the landmark federal act against cancer involved the interests and efforts of many members of Congress, including Senator Mathew M. Neely of West Virginia, Senator Royal S. Copeland of New York, and Representative Maury Maverick of Texas. But two

members of Congress from the State of Washington, Bone and Magnuson, were historically *primus inter pares*. The history of the legislative origins of the National Cancer Institute Act is reviewed by W. A. Yaremchuk (J. Natl. Cancer Inst., 59: 551-558, 1977).

Homer Truett Bone (*right*) was born in Indiana in 1883 and was admitted to the bar in 1911. He was elected to the Washington State Legislature in 1923, and to the United States Senate in 1932. He served in the Senate until 1944, when he was appointed Judge of the U.S. Court of Appeals for the Ninth Circuit, with headquarters in San Francisco. Bone retired in 1954 and died in 1970.

Warren Grant Magnuson (*left*) was born in 1905, in Minnesota, and admitted to the bar in 1929. He was elected to the Washington State Legislature in 1933, and Representative to the 75th Congress from the First Washington District. In 1944 he was elected to the United States Senate, where he has continued to serve without interruption. In 1978 he became chairman of the Appropriations Committee. The subjects of national health and biomedical research have had continually high priorities among his activities (W. G. Magnuson and E. A. Segal. *How Much For Health?* New York: Robert B. Luce, Inc., 1974).

The background is the text of the 1937 National Cancer Institute Act. We are indebted to Mr. Elliott Segal for the portraits, taken ca. 1937.

M. B. S.