AUTHOR INDEX

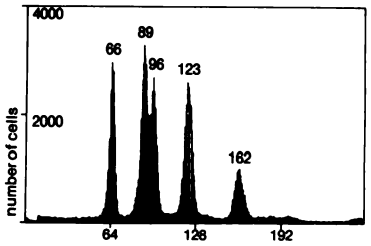
July 1980

The Ortho ICP 22A Flow Cytometer utilizes a high power mercury arc lamp in combination with a Kohler optical system to achieve extraordinary precision and wide versatility. The capabilities of this instrument are best evaluated from the standpoint of the results it can provide. Examine the actual fluorescence histograms presented.

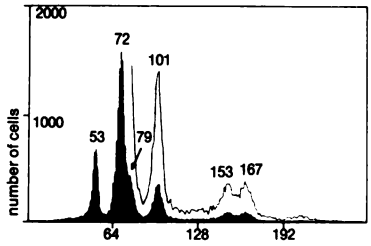
The high resolution of the instrument is complemented by its dual channel fluorescence detectors, which allow correlated measurements of two different dyes. Thus, the ICP 22A can provide simultaneous measurement of per cell DNA and protein content. Because of its Kohler illumination system it can even measure the DNA content of cells in which the DNA is irregularly distributed. Given the range of specific stoichiometric dyes available, its versatility is almost unmatched. To enhance that versatility still further, the ICP 22A will soon offer electronic cell volume measurement in addition to the other parameters (available September 1980).

Therapy monitoring by flow cytometric analysis

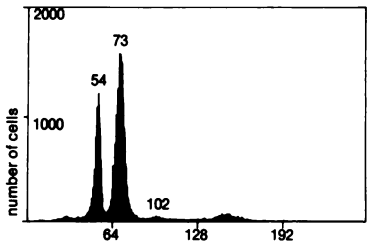
1. DNA histograms show a multiclonal tumor with four distinct tumor cell lines. Left peak in all histograms is normal cells. During three month chemotherapy with bleomycin and DTIC, the three higher ploidy tumor lines disappeared leaving only the more resistant lowest ploidy line. This biopsy series shows the different sensitivities of tumor cell lines in the same patient.



1a. At commencement of chemotherapy, the DNA histogram shows four cell lines with different ploidy stages. Left peak is normal diploid cells.



1b. After two months the DNA histogram shows suppression of three of the tumor cell lines.



1c. One month later, the DNA histogram shows the disappearance of higher ploidy tumor cell lines and the resistance of lower ploidy tumor cell line to chemotherapy.

In order to provide customers with complete support, Ortho maintains an Applications Laboratory that is available for confirmation and consultation services. Additionally, an international network of service technicians is ready to aid customers should calibration or repairs ever be required.

The Ortho ICP 22A offers remarkable precision and versatility at an exceptionally affordable price. We invite you to contact the Research Instruments Division of Ortho to find out more about the ICP Flow Cytometer. It's available either as a stand alone flow cytometric analyzer or as part of an Ortho System 40 or 60, with dual laser illumination.

Protocols No. 28 and 29

Two new Protocols; *One step Ethidium Bromide DNA/Cell Staining Procedure* and *DNA analysis using D.A.P.I.* are available from Ortho. Write or call for your complimentary copies. (617) 329-6100

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Precision, versatility and exceptional value.

The ICP Flow Cytometer

DAMON RUNYON—WALTER WINCHELL CANCER FUND
33 West 56th Street, New York, N.Y. 10019

Request for Proposal

DAMON RUNYON—WALTER WINCHELL CANCER FUND

RESEARCH FELLOWSHIPS

Deadline for first applications: August 15, 1980
Decision on first applications: December, 1980

The Damon Runyon—Walter Winchell Cancer Fund is seeking fellowship applications from clinician-scientists who are interested in studying the biology, prevention, diagnosis, or treatment of human cancer. The fellowship is intended to support a two-year period of research, largely free from clinical obligations, during which time the fellow will develop a research program that will provide a basis for a subsequent academic career. The fellowship tenure will award a stipend of $15,500 per annum. This stipend is *not* intended to be a substitute for a resident's salary. Candidates may apply for an additional sum of at most $1500 for research supplies. Doctors of Philosophy not holding an M.D. degree will not be excluded from consideration if the proposed research deals with human cancer.

Applicants must have: 1) a strong commitment to an academic career; 2) a sponsor who will supervise his or her research training; and 3) additional financial support from a sponsoring or parent institution, to ensure that the total compensation will be commensurate with the fellow's experience and training. Applicants should either be nearing the completion of their clinical training programs or have finished their training not more than 2 years before applying.

Applications will be judged on the basis of the qualifications of the fellow and the sponsor, as well as on the originality and relevance of the proposed research. Additional details concerning these fellowships can be obtained by writing:

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