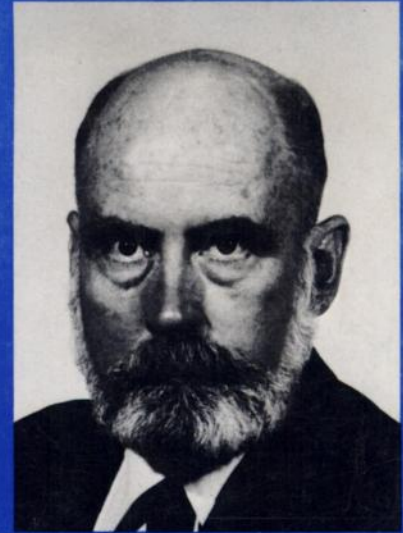
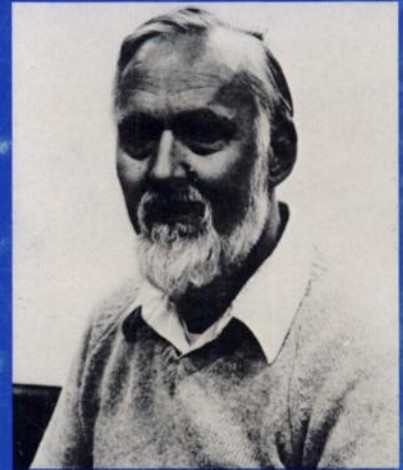
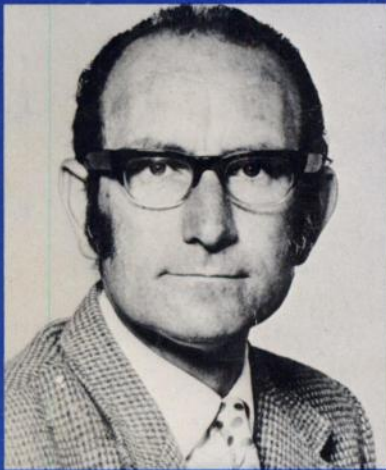


Cancer Research

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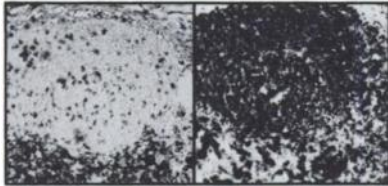
Becton Dickinson Monoclonal Antibodies

APPLICATIONS IN IMMUNOLOGY

Human Lymphocyte Subpopulations

LOCALIZE

Immunohistochemical Staining:
Biotin-Avidin-Peroxidase Method*



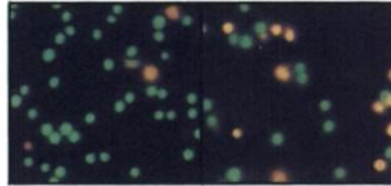
Anti-Leu-1

Anti-HLA-DR

Anti-Leu-1 identifies T cells; Anti-HLA-DR identifies B cells, dendritic cells, and macrophages in normal lymphoid tissue. Cell sample: frozen section of normal lymph node. Data courtesy of Roger Warnke, M.D., Dept. of Pathology, Stanford University.

DEplete

Indirect Cytotoxicity*



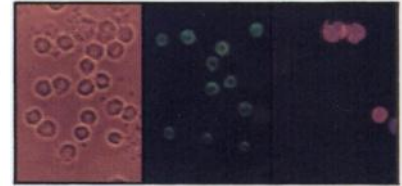
Anti-Arsanilate
+ Complement
(control)

Anti-Leu-3a Arsanilate
+ Anti-Arsanilate
+ Complement

Dead cells (Leu-3a⁺) fluoresce orange with ethidium bromide; live cells (Leu-3a⁻) fluoresce green with acridine orange. Cell sample: normal peripheral blood mononuclear cells. Data from Becton Dickinson Monoclonal Antibody Center.

COUNT

Direct Immunofluorescence:
Microscopy*

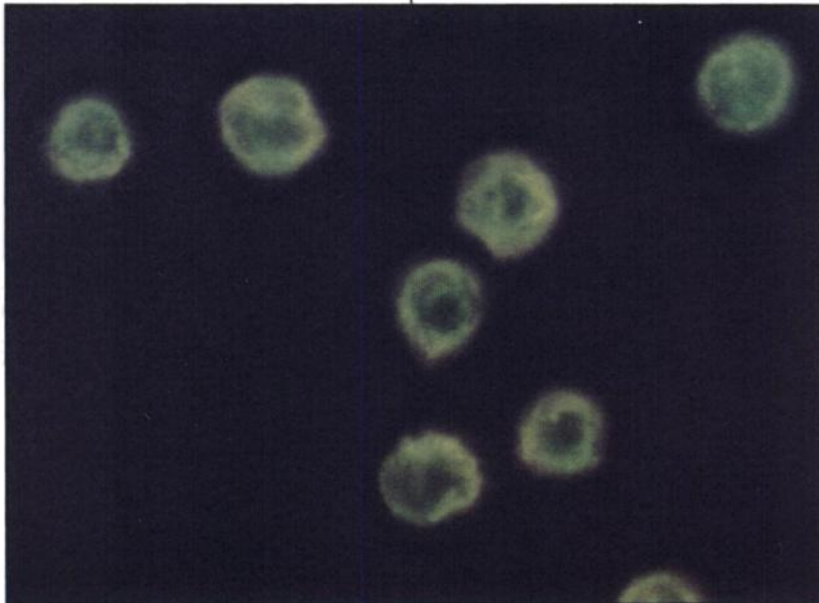


Phase

FITC
Excitation

RITC
Excitation

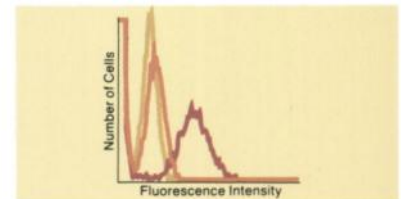
Anti-Leu-1 FITC (green) identifies T cells; Anti-HLA-DR RITC (red) identifies B cells and monocytes. Cell sample: normal peripheral blood mononuclear cells. Data courtesy of John Kearney, Ph.D., Dept. of Microbiology, University of Alabama, Birmingham.



T cells in normal peripheral blood (Anti-Leu-1 FITC).

CHARACTERIZE

Direct Immunofluorescence:
FACS Analysis*



- Anti-Leu-3a FITC (53%⁺) ● Anti-Leu-3b FITC (54%⁺)
- Anti-Leu-3a FITC + Anti-Leu-3b FITC (53%⁺)

Additive fluorescence but identical percentages shows that Anti-Leu-3a and Anti-Leu-3b bind to different antigenic determinants on the same T cell. Cell sample: normal peripheral blood mononuclear cells, monocyte depleted. Data from Becton Dickinson Monoclonal Antibody Center.

*For detailed methods, see our Monoclonal Antibody Source Book.

Becton Dickinson's anti-human monoclonal reagents, including our Newest Products:

Anti-Leu-1 (pan T; T1 equivalent)	Anti-HLA-DR
Anti-Leu-2a (T cytotoxic/suppressor; T8 equivalent)	Anti-IgA ₁
Anti-Leu-2b (T cytotoxic/suppressor; T8 equivalent)	Anti-IgA ₂
Anti-Leu-3a (T helper/inducer; T4 equivalent)	Anti-Kappa
Anti-Leu-3b (T helper/inducer; T4 equivalent)	Anti-Lambda
Anti-Leu-4 (pan T, mitogenic; T3 equivalent)	Anti-IgG
Anti-Leu-5 (E rosette receptor; T11 equivalent)	Anti-IgD
Anti-β ₂ Microglobulin	

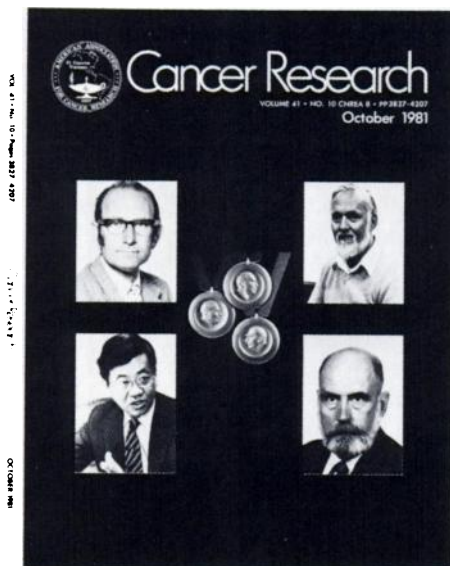
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COVER LEGEND



Cancer Research and the American Association for Cancer Research congratulate four colleagues who won the 1981 awards of the General Motors Cancer Research Foundation. At ceremonies in Washington, D. C., on June 17, 1981, each was honored with a gold medal and \$100,000.

The 1981 winners were:

Cesar Milstein, M.D., Ph.D. (*upper left*), a member of the Medical Research Council Laboratory of Molecular Biology in Cambridge, England, received the Sloan Prize for his development of hybridoma technology, a process that enables the unlimited production of monoclonal antibodies that may serve as probes in the diagnosis and treatment of cancer.

Wallace Prescott Rowe, M.D. (*upper right*), Chief of the Laboratory of Viral Diseases at the National Institute of Allergy and Infectious Diseases in Bethesda, Maryland, received the Sloan Prize for his contributions in virology, particularly his demonstrating leukemia viruses to be carried as normal chromosomal genes.

Takashi Sugimura, M.D. (*lower left*), Director of the National Cancer Center Research Institute in Tokyo, Japan, received the Mott Prize for his scientific leadership in identifying possible carcinogens and mutagens in food.

E. Donnall Thomas, M.D. (*lower right*), Director of Medical Oncology at the Fred Hutchinson Cancer Research Center in Seattle, Washington, was honored with the Kettering Prize for his development of bone marrow transplantation for the treatment of patients with aplastic anemia and acute leukemia.

M. B. S.