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Aquatic microorganisms are gaining scientific relevance as model systems, ecological indicators, and sources of novel genetic material. Since these organisms occur naturally in suspension and contain chlorophyll, phycoerythrin and other autofluorescent photosynthetic pigments, they are ideal candidates for flow cytometry. The CyAn ADP High-Performance Analyzer and the MoFlo High-Performance Cell Sorter excel at resolving and isolating aquatic microorganisms ranging from submicron bacteria to large dinoflagellates.

MoFlo

Diversa


Max Planck Institute


University of Georgia


University of Innsbruck


Bacteria

Bacteria have broad scientific relevance in today’s research laboratory. Whether they are of interest for traditional microbiology, as a system for high-throughput screening, or as a vehicle for gene expression studies, their unique characteristics make them well suited for study by flow cytometry. With superior resolution for small particles, the CyAn ADP High-Performance Analyzer and the MoFlo High-Performance Cell Sorter offer fast, versatile, high-resolution platforms for evaluating and manipulating bacteria, viruses, fungi, protists, and other microorganisms.

CyAn ADP and MoFlo

University of Georgia


CyAn ADP

Colorado State University


MoFlo

Brigham and Women’s Hospital


Centre for Environmental Research, Leipzig-Halle


Georg-August-University


Bacteria continued

Georg-August University

Max Planck Institute

Stanford University

University of Georgia


University of Illinois, Urbana

Although cancer, an extremely complex disease process involving genetic, environmental and behavioral factors, can stem from a vast range of cell types, it displays the common characteristic of uncontrolled cell division resulting in abnormal tissue growth. By enabling researchers to obtain specific cell cycle, phenotypic, and functional information about the mechanism in which cells become malignant and the body’s response, the CyAn ADP High-Performance Analyzer and the MoFlo High-Performance Cell Sorter ultimately contribute to the development of cutting-edge cancer treatments and novel vaccines.

Cancer

CyAn ADP
ARNAS Civico-Benfratelli, Palermo

Northwestern University Medical School

University of Pennsylvania

MoFlo
Baylor College of Medicine

Commissariat à l’Energie Atomique

City of Hope National Medical Center


Cancer continued

Harvard Medical School


Institut Pasteur

Max Planck Institute

Technical University of Munich

University of Texas MD Anderson Cancer Center


Washington University School of Medicine

Ontario Cancer Institute

Sanquin Research at CLB, Amsterdam

University of California, San Francisco

CyAn ADP
Children’s Hospital of Philadelphia

University of Colorado Salt Lake City

Wistar Institute

MoFlo
Amen

Basel Institute for Immunology

CellTech

Dendritic Cells
Dendritic cells — the most potent antigen-presenting cells in the immune system — typically comprise less than 2% of lymphoid organs. The CyAn ADP High-Performance Analyzer rapidly characterizes this complex population and the MoFlo High-Performance Cell Sorter quickly and accurately purifies these rare cells, providing a functional end product for use in further investigations.
Dental Cells continued

Dana-Farber Cancer Institute


Edward Jenner Institute


Institut Pasteur

Ludwig Institute for Cancer Research, Victoria


Technological University of Munich


Memorial Sloan-Kettering Cancer Center

MoFlo and CyAn Selected References


University of Chicago

University of North Carolina, Chapel Hill

Walter and Eliza Hall Institute

MoFlo and CyAn Selected References
Drosophila Cells

Drosophila continues to be the organism of choice for many at the forefront of genomics and proteomics research. Evolutionary conservation and ease of genetic manipulation have made this organism an attractive model for the study of eukaryotic development mechanisms. With their superior resolution and multicolor capability, the CyAn ADP High-Performance Analyzer and the MoFlo High-Performance Cell Sorter are uniquely suited as tools for the study of complex biological processes.

MoFlo

European Molecular Biology Laboratory


Massachusetts General Hospital


Massachusetts Institute of Technology


Stanford University School of Medicine


University of California, Irvine


University of North Carolina, Chapel Hill


Fluorescent Proteins

In the rapidly evolving proteomics era, applications for fluorescent proteins, such as CFP, GFP, YFP and BFP continue to grow. Whether as simple indicators of gene expression levels or as tools in fluorescence resonance energy transfer (FRET), the CyAn ADP High-Performance Analyzer and the MoFlo High-Performance Cell Sorter are ideal platforms for detecting these proteins and isolating cells with desired expression patterns.

CyAn ADP

Trudeau Institute

MoFlo

Aaron Diamond AIDS Research Center


Albert Einstein College of Medicine

Children’s Hospital, Boston


Dana-Farber Cancer Institute


Fluorescent Proteins continued

Dana-Farber Cancer Institute


John Hopkins University

Massachusetts General Hospital


Massachusetts Institute of Technology

Medical Research Council

Mt. Sinai School of Medicine


National Institutes of Health


National Jewish Medical and Research Center

Oklahoma Medical Research Foundation

Ontario Cancer Institute


Picol Pharmaceuticals


St. Jude Children’s Research Hospital

University of California, San Francisco

University of Chicago

University of North Carolina, Chapel Hill


Washington University School of Medicine
High-Throughput Screening

Interest is growing in the use of flow cytometers to screen cell- or bead-based combinatorial libraries. 1-3 Increasingly, flow cytometric assays are used to detect molecules that bind to a target protein in vitro or exhibit a particular activity in a cell-based assay. Flow cytometry also enables screening of protein libraries expressed in cells or displayed on the surface of bacteria or beads. A flow cytometer, for instance, can detect modulation of a signal transduction pathway by a particular small molecule and identify proteins with a particular binding specificity, enzymatic activity, expression level, and stability. The CyAn ADP High-Performance Analyzer and the MoFlo High-Performance Cell Sorter are finding wide application in this arena.

CyAn ADP

Trudeau Institute

MoFlo

Diversa

Georg-August-University


Lynn Therapeutics


Massachusetts Institute of Technology

National Jewish Medical and Research Center

Rigel Pharmaceuticals


University of Georgia

University of North Carolina, Chapel Hill

University of Queensland

University of Texas, Austin


University of Zurich

Stanford University

MoFlo and CyAn Selected References

**MoFlo and CyAn Multimer Assays**

**CyAn ADP and MoFlo**

**Memorial Sloan-Kettering Cancer Center**

**Technical University of Munich**

**University of Pittsburgh School of Medicine**

**CyAn ADP**

**Trudeau Institute**


**MoFlo**

**Basel Institute for Immunology**

**Harvard Medical School**

**Memorial Sloan-Kettering Cancer Center**


**New York University School of Medicine**

**St. Jude Children's Research Hospital**

**University of Pittsburgh School of Medicine**

**South Carolina Cancer Center**

**University of California, Davis**

**Memorial Sloan-Kettering Cancer Center**


**University of Pennsylvania School of Medicine**


CyAn ADP and MoFlo
University of Pittsburgh School of Medicine

CyAn ADP
John Radcliffe Hospital

Oxford University

University of Pittsburgh School of Medicine

University of York

MoFlo
Basel Institute for Immunology

Baylor College of Medicine

University of York

European Molecular Biology Laboratory

Harvard University

Haukeland University Hospital


European Molecular Biology Laboratory

Harvard University

Haukeland University Hospital


Otawa Health Research Institute

Roger Williams Medical Center

Stanford University School of Medicine


Stowers Institute for Medical Research

University of California, Davis

University of Cambridge

University of Colorado Health Sciences Center

University of Freiburg Medical Center

University of Massachusetts Medical School


Stowers Institute for Medical Research

University of California, Davis

University of Cambridge

University of Colorado Health Sciences Center

University of Freiburg Medical Center

University of Massachusetts Medical School


Stowers Institute for Medical Research

University of California, Davis

University of Cambridge
T- and B-cells

Classic subjects for flow cytometric analysis, T and B lymphocytes play a central role in the function of the immune system. With their powerful and adaptive platforms, the CyAn ADP High-Performance Analyzer and the MoFlo High-Performance Cell Sorter enable efficient multiparametric identification and isolation of the almost infinitely number of subsets of these and other immune cell types, revealing the complexities of cellular and humoral immune response.

CyAn ADP and MoFlo

Memorial Sloan-Kettering Cancer Center

National Jewish Medical and Research Center


University of Georgia

University of California San Francisco School of Medicine


CyAn ADP

John Radcliffe Hospital

Memorial Sloan-Kettering Cancer Center


University of Georgia

University of California San Francisco School of Medicine


MoFlo

John Radcliffe Hospital

Memorial Sloan-Kettering Cancer Center

University of Georgia

University of California San Francisco School of Medicine


MoFlo

John Radcliffe Hospital

Memorial Sloan-Kettering Cancer Center

University of Georgia

University of California San Francisco School of Medicine


MoFlo

John Radcliffe Hospital

Memorial Sloan-Kettering Cancer Center

University of Georgia

University of California San Francisco School of Medicine

T- and B-cells continued

University of Alabama, Birmingham

University of California, San Francisco


University of Pennsylvania Cancer Center

Washington University School of Medicine