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Nota di contenuto	Contents; Preface; Acknowledgments (First Edition); Acknowledgments (Second Edition); 1 The Past as Prologue; 2 Setting the Scene; 3 Instrumentation: Into the Black Box; Illumination of the Stream; Centering Cells in the Illuminating Beam; Detection of Signals from Cells; Electronics; 4 Information: Harnessing the Data; Data Storage; Data Analysis; 5 Seeing the Light: Lasers, Fluorochromes, and Filters; General Theory; Lasers; Fluorochromes; Partitioning the Signal with Lenses, Filters, and Mirrors; Spectral Compensation 6 Cells from Without: Leukocytes, Surface Proteins, and the Strategy of Gating Cells from Blood; Staining for Surface Markers; Controls; Quantitation; Sensitivity; The Strategy of Gating; Gating on Fluorescence; 7 Cells from Within: Intracellular Proteins; Methods for Permeabilizing Cells; Examples of Intracellular Staining; 8 Cells from Within: DNA in Life and Death; Fluorochromes for DNA Analysis; Ploidy; Cell Cycle Analysis; Two-Color Analysis for DNA and Another Parameter; Chromosomes; Apoptosis; Necrosis; 9 The Sorting of Cells; Sorting Theory; Characterization of Sorted Cells Alternative Methods for Sorting The Condition of Cells After Sorting; 10

Disease and Diagnosis; The Clinical Laboratory; The Hematology Laboratory; The Pathology Laboratory; Solid Organ Transplantation; Comments; 11 Out of the Mainstream: Research Frontiers; Functional Assays; The Aquatic Environment; Reporter Molecules; Microbiology; Molecular Biology; Multiplex Cytometry for Soluble Analytes; Reproductive Technology; 12 Flowing On: The Future; General References; Glossary; A; B; C; D; E; F; G; H; I; L; M; N; O; P; Q; R; S; T; V; W; Figure Credits; Index; A; B; C; D; E; F; G; H; I; J; K; L; M NO; P; Q; R; S; T; U; V; W; X; Y; Z

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## Sommario/riassunto

Flow cytometry continually amazes scientists with its ever-expanding utility. Advances in flow cytometry have opened new directions in theoretical science, clinical diagnosis, and medical practice. The new edition of Flow Cytometry: First Principles provides a thorough update of this now classic text, reflecting innovations in the field while outlining the fundamental elements of instrumentation, sample preparation, and data analysis. Flow Cytometry: First Principles, Second Edition explains the basic principles of flow cytometry, surveying its primary scientific and clinical a

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