## Contents

Abbreviations	x
1. Introduction	
Why flow cytometry?	
What is flow cytometry?	
Further reading	4
2. Instrumentation	•
Introduction	
The flow cell	:
Light sources	Į.
Optics	Į.
Focusing the excitation beam	Ę
Light collection	(
Optical filters	7
Detectors	8
Signal processing	8
Electronic trigger	8
Pulse shape analysis	3
Amplification	8
Analogue to digital conversion	Ç
Data analysis Methods for displaying data	ç
Gating	
Logarithmic vs. linear amplification	12
Simple statistical analysis	12
Cell sorting	13
Further reading	14
3. Fluorescence	15
Introduction	
Properties of a fluorophore	15
Spectral overlap	16
	vii

CONTENTS p. 8

	CC	ONTENTS I	ix	
딘				$\cap$
Ţ	Asynchronous cultures		<del>14</del>	
SA	Combined antibody staining and BrdU–Hoechst/PI at			0
	Quantification of cell death		47	Z
FOR	Estimating cell viability		47	$\dashv$
ь	Measurement of apoptotic cells References		48 51	щ
ᆫ	Further reading		52	
Ō				Z
NOT	7. Other Applications	ŧ.	53	S
musand@front.ru	RNA content	!	<b>E</b> 9	
•	Protein content		53	Ö
ĭ	Kinetic analysis of intracellular enzymes			$\infty$
O	Membrane permeability	Į	54	
Ä	Membrane potential	Ę	54	
ω, H	Production of intracellular oxidative species	ŧ	55	
Q(	Measurement of drug uptake	ŧ	55	
Ë	Binding and endocytosis of ligands		55	
m M	Intracellular calcium ions		56	
Ħ	Intracellular pH		56	
됨	Intracellular glutathione		57	
	Chromosome analysis and sorting		58	
Z	Tracking cells in vivo		59 60	
SA	Monitoring electropermeabilization  Monitoring fusion or clustering of cells		60	
MUSAND	References		61	
bγ	Appendices		65	
	Appendix A: Glossary	(	65	
eq	Appendix B: Manufacturers and suppliers	(	69	
T	Appendix C: Learned societies		73	
nver	Index	•	75	
'n				
Ŭ				
بغ				
$\geq$				
DjVu−co				
ઝ				
Ď.				
Щ				
aī				
scanned				
O)				