
Contents

Dedication	v
Preface	vii
Acknowledgments	ix
Contributors	xiii
List of Color Pages	xv

PART I. BASIC METHODOLOGY

1. New Rapid Multicolor PRINS Protocol	3
<i>Ju Yan, Macoura Gadji, Kada Krabchi, and Régen Drouin</i>	
2. PRINS Combined With Peptide Nucleic Acid Labeling	15
<i>Franck Pellestor and Petra Paulasova</i>	
3. PRINS Combined With Indirect Immunofluorescence	23
<i>Philippe Coullin</i>	
4. PRINS for the Detection of Unique Sequences	33
<i>Stephen S. Wachtel and Avirachan T. Tharapel</i>	
5. Single-Copy and Point Mutation Analysis (Rolling-Circle PRINS)	41
<i>Jørn Koch</i>	
6. Analysis of Sperm Aneuploidy by PRINS	49
<i>Franck Pellestor, Brigitte Andréo, Jacques Puechberty, Geneviève Lefort, and Pierre Sarda</i>	
7. <i>In Situ</i> PCR Protocols	61
<i>Omar Bagasra and Twaina Harris</i>	

PART II. RESEARCH AND CLINICAL APPLICATIONS

8. Detection and Sizing of Telomeric and Other Simple Repeats by Dideoxy-PRINS	81
<i>Jørn Koch</i>	
9. PRINS Evaluation of Chromosome Instability in Mammalian Cells by Detection of Repetitive DNA Sequences in Micronuclei	89
<i>Antonella Russo</i>	
10. PRINS for the Detection of Gene Deletions in Cancer	105
<i>Avirachan T. Tharapel and Stephen S. Wachtel</i>	
11. Combined Fluorescence <i>In Situ</i> Hybridization and PRINS for the Analysis of the <i>Dystrophin</i> Gene	115
<i>Liborio Stuppia, Dario La Sala, and Caterina Cinti</i>	

12. Brain Tissue Preparations for Chromosomal PRINS Labeling	123
Ivan Y. Iourov, Svetlana G. Vorsanova, Franck Pellestor, and Yuri B. Yurov	
13. PRINS on Plant Chromosomes	133
Jiří Macas, Alice Navrátilová, Marie Kubaláková, and Jaroslav Doležal	
14. Dual-Color PRINS for <i>In Situ</i> Detection of Fetal Cells in Maternal Blood	141
Kada Krabchi, Macoura Gadji, Ju Yan, and Régen Drouin	
15. PRINS as an Efficient Tool for Aneuploidy Assessment in Human Oocytes and Preimplantation Embryos	151
Franck Pellestor, Brigitte Andréo, Tal Anahory, and Samir Hamamah	
16. Microdissection With PCR <i>In Situ</i>	161
Allen T. Christian and Christine Hara	
17. Application of Reverse Transcription <i>In Situ</i> PCR in Cancer Analysis	169
Tamotsu Takeuchi, Yoshihiro Adachi, Hiroshi Sonobe, and Yuji Ohtsuki	
18. <i>In Situ</i> Reverse Transcription PCR on Plant Tissues	181
Zbigniew Przybecki, Ewa Siedlecka, Marcin Filipecki, and Ewa Urbanczyk-Wochniak	
19. <i>In Situ</i> PCR for the Detection of Human Cytomegalovirus in Suspension Cells During the Latent Phase of Infection	199
Barry Slobedman	
20. Development and Adaptation of the PRINS Technology: <i>An Overview</i>	211
Franck Pellestor	
21. Latest Developments in <i>In Situ</i> PCR	221
Omar Bagasra and Twaina Harris	
Index	241



<http://www.springer.com/978-1-58829-549-1>

PRINS and In Situ PCR Protocols

Pellestor, F. (Ed.)

2006, XVI, 244 p., Hardcover

ISBN: 978-1-58829-549-1

A product of Humana Press