Preimplantation Genetic Diagnosis
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Second Edition

Edited by

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Preface

This book has been written by the leaders in the field of preimplantation genetic diagnosis (PGD) for everyone who has an interest in the field, including embryologists, reproductive specialists, cytogeneticists, molecular biologists, obstetricians, gynecologists, genetic counselors, and nurses. Since the first PGD cases were performed in the late 1980s, PGD is now performed worldwide. This book brings together all the disciplines involved in PGD. The introduction summarizes all the disciplines and includes a history of PGD. The first section covers the background and includes chapters on in vitro fertilization (IVF), genetic disease, genetic counseling, prenatal diagnosis, preimplantation development, and preimplantation genetics. The second section covers the techniques used in PGD, including clinical practice, polar body biopsy, cleavage-stage biopsy, blastocyst biopsy, fluorescent in situ hybridization (FISH) for chromosome abnormalities, sexing and aneuploidy screening, the use of polymerase chain reaction (PCR) in PGD, and quality assurance and good practice. The last section covers ethical issues and future developments.

Since the book encompasses all aspects of PGD, readers from any background will be able to understand the entire field of PGD. Each chapter contains a list of key points summarizing the chapter. Readers can read the book from cover to cover or dip into the chapters that interest them. Since the field of PGD is at the cutting edge of IVF, molecular, and cytogenetic technology, it is continuously evolving and so this new edition has many updates to the first edition. This includes new chapters on polar body, cleavage-stage and blastocyst biopsy, PGD for sexing, chromosome abnormalities, and aneuploidy screening. This book is a must for anyone interested in PGD.