PREFACE

The field of cytogenetics is wide and diversified. The different specializations (Drosophila polytene cytology, human karyotyping, plant cytogenetics, etc.) seem to have only few contact points and tend to be treated as separate entities. Yet they all have one common basis: the chromosome, its behaviour and the genetic consequences of this behaviour. It is gradually becoming clear that the chromosomes of all higher organisms, in composition and behaviour are fundamentally equal. Studying chromosomes in plants is quite relevant for understanding chromosomes in man and vice versa. It is important, therefore, to try to treat the entire science of cytogenetics as one unit. While such an approach may already be difficult with a simpler subject, it is truly complicated with this particularly wide field, certainly when the book must be kept within pocket size. There are a few ways out: one can generalize and consider only the major aspects in a simplified way that makes them understandable to the uninitiated student without further help. Or one can make the coverage wider and introduce some detail, hoping that the student has a sound basic knowledge of genetics and can count on someone to help him out when he gets baffled by the complexities of cytogenetic thought. The latter alternative was chosen, but is should be understood that the coverage still had to be far from complete.

The book contains a reasonable amount of systematically arranged information that may be used for reading assignments accompanying a cytogenetics course, and may perhaps replace extensive note-taking during lectures.