

Contents in Brief

1	Introduction to Genetics	1
2	Chromosomes and Cellular Reproduction	16
3	Basic Principles of Heredity	45
4	Sex Determination and Sex-Linked Characteristics	76
5	Extensions and Modifications of Basic Principles	101
6	Pedigree Analysis and Applications	132
7	Linkage, Recombination, and Eukaryotic Gene Mapping	159
8	Bacterial and Viral Genetic Systems	198
9	Chromosome Variation	234
10	DNA: The Chemical Nature of the Gene	266
11	Chromosome Structure and Transposable Elements	288
12	DNA Replication and Recombination	322
13	Transcription	353
14	RNA Molecules and RNA Processing	378
15	The Genetic Code and Translation	404
16	Control of Gene Expression	434
17	Gene Mutations and DNA Repair	472
18	Recombinant DNA Technology	507
19	Genomics	548
20	Organelle DNA	583
21	Advanced Topics in Genetics: Developmental Genetics, Immunogenetics, and Cancer Genetics	602
22	Quantitative Genetics	636
23	Population and Evolutionary Genetics	669