

Brief Contents

- 1 Introduction to Genetics / 1
- 2 Chromosomes and Cellular Reproduction / 16
- 3 Basic Principles of Heredity / 43
- 4 Sex Determination and Sex-Linked Characteristics / 73
- 5 Extensions and Modifications of Basic Principles / 99
- 6 Pedigree Analysis, Applications, and Genetic Testing / 134
- 7 Linkage, Recombination, and Eukaryotic Gene Mapping / 160
- 8 Bacterial and Viral Genetic Systems / 200
- 9 Chromosome Variation / 237
- 10 DNA: The Chemical Nature of the Gene / 267
- 11 Chromosome Structure and Transposable Elements / 285
- 12 DNA Replication and Recombination / 315
- 13 Transcription / 345
- 14 RNA Molecules and RNA Processing / 368
- 15 The Genetic Code and Translation / 395
- 16 Control of Gene Expression in Prokaryotes / 425
- 17 Control of Gene Expression in Eukaryotes / 453
- 18 Gene Mutations and DNA Repair / 471
- 19 Molecular Genetic Analysis and Biotechnology / 503
- 20 Genomics and Proteomics / 547
- 21 Organelle DNA / 579
- 22 Developmental Genetics and Immunogenetics / 599
- 23 Cancer Genetics / 624
- 24 Quantitative Genetics / 645
- 25 Population Genetics / 679
- 26 Evolutionary Genetics / 707