## Contents in Brief

- Sequence Databases, 3
- 2 Mapping Databases, 25
- 3 Information Retrieval from Biological Databases, 55
- 4 Genomic Databases, 81
- 5 Predictive Methods Using DNA Sequences, 115
- 6 Predictive Methods Using RNA Sequences, 143
- 7 Sequence Polymorphisms, 171
- 8 Predictive Methods Using Protein Sequences, 197
- 9 Protein Structure Prediction and Analysis, 223
- 10 Intermolecular Interactions and Biological Pathways, 253

- I I Assessing Pairwise Sequence Similarity: BLAST and FASTA, 295
- 12 Creation and Analysis of Protein Multiple Sequence Alignments, 325
- 13 Sequence Assembly and Finishing Methods, 341
- 14 Phylogenetic Analysis, 365
- 15 Computational Approaches in Comparative Genomics, 393
- 16 Using DNA Microarrays to Assay Gene Expression, 409
- 17 Proteomics and Protein Identification, 445
- 18 Using Perl to Facilitate Biological Analysis, 475