

- **1 The Foundations of Biochemistry**
- **Part I Structure and Catalysis**
- **10 Lipids**
- **11 Biological Membranes and Transport**
- **14 Glycolysis, Gluconeogenesis, and the Pentose Phosphate Pathway**
- **2 Water**
- **8 Nucleotides and Nucleic Acids**
- **12 Biosignaling**
- **3 Amino Acids, Peptides, and Proteins**
- **Part II Bioenergetics and Metabolism**
- **4 The Three-Dimensional Structure of Proteins**
- **5 Protein Function**
- **7 Carbohydrates and Glycobiology**
- **9 DNA-Based Information Technologies**
- **6 Enzymes**
- **13 Principles of Bioenergetics**
- **15 Principles of Metabolic Regulation: Glucose and Glycogen Metabolism**
- **16 The Citric Acid Cycle**
- **17 Fatty Acid Catabolism**
- **18 Amino Acid Oxidation and the Production of Urea**
- **20 Carbohydrate Biosynthesis in Plants and Bacteria**
- **21 Lipid Biosynthesis**
- **22 Biosynthesis of Amino Acids, Nucleotides, and Related Molecules**
- **23 Hormonal Regulation and Integration of Mammalian Metabolism**
- **Part III Information Pathways**
- **24 Genes and Chromosomes**
- **25 DNA Metabolism**
- **26 RNA Metabolism**
- **27 Protein Metabolism**
- **28 Regulation of Gene Expression**
- **19 Oxidative Phosphorylation and Photophosphorylation**