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Nota di contenuto	Protein-Lipid Interactions; Preface; Contents; List of Contributors; Part 1 How Lipids Shape Proteins; 1 Lipid Bilayers, Translocons and the Shaping of Polypeptide Structure; 1.1 Introduction; 1.2 Membrane Proteins: Intrinsic Interactions; 1.2.1 Physical Determinants of Membrane Protein Stability: The Bilayer Milieu; 1.2.2 Physical Determinants of Membrane Protein Stability: Energetics of Peptides in Bilayers; 1.2.3 Physical Determinants of Membrane Protein Stability: Helix-Helix Interactions in Bilayers; 1.3 Membrane Proteins: Formative Interactions 1.3.1 Connecting Translocon-assisted Folding to Physical Hydrophobicity Scales: The Interfacial Connection 1.3.2 Connecting Translocon-assisted Folding to Physical Hydrophobicity Scales: Transmembrane Insertion of Helices; 1.4 Perspectives; References; 2 Folding and Stability of Monomeric -Barrel Membrane Proteins; 2.1

Introduction; 2.2 Stability of β -Barrel Membrane Proteins; 2.2.1 Thermodynamic Stability of FepA in Detergent Micelles; 2.2.2 Thermodynamic Stability of OmpA in Phospholipids Bilayers; 2.2.3 Thermal Stability of FhuA in Detergent Micelles
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Sommario/riassunto

In 17 contributions by leading research groups, this first comprehensive handbook in the field covers the interactions between proteins and lipids that make the fabric of biological membranes from every angle. It examines the relevant thermodynamic and structural issues from a basic science perspective, and goes on to discuss biochemical and cell biological processes. The book covers physical principles as well as mechanisms of membrane fusion and fission. Additionally, chapters on bilayer structure and protein-lipid interactions as well as on how proteins shape lipids and vice versa, membrane
