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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 -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
2.3 Insertion and Folding of Transmembrane β -Barrel Proteins 2.3.1
Insertion and Folding of β -Barrel Membrane Proteins in Micelles; 2.3.2
Oriented Insertion and Folding into Phospholipid Bilayers; 2.3.3
Assemblies of Amphiphiles Induce Structure Formation in β -Barrel
Membrane Proteins; 2.3.4 Electrophoresis as a Tool to Monitor Insertion
and Folding of β -Barrel Membrane Proteins; 2.3.5 pH and Lipid
Headgroup Dependence of the Folding of β -Barrel Membrane Proteins;
2.4 Kinetics of Membrane Protein Folding
2.4.1 Rate Law for β -Barrel Membrane Protein Folding and Lipid Acyl
Chain Length Dependence 2.4.2 Synchronized Kinetics of Secondary and
Tertiary Structure Formation of the β -Barrel OmpA; 2.4.3 Interaction of
OmpA with the Lipid Bilayer is Faster than the Formation of Folded
OmpA; 2.5 Folding Mechanism of the β -Barrel of OmpA into DOPC
Bilayers; 2.5.1 Multistep Folding Kinetics and Temperature Dependence
of OmpA Folding; 2.5.2 Characterization of Folding Intermediates by
Fluorescence Quenching; 2.5.3 The β -Barrel Domain of OmpA Folds
and Inserts by a Concerted Mechanism
2.6 Protein-Lipid Interactions at the Interface of β -Barrel Membrane
Proteins 2.6.1 Stoichiometry of the Lipid-Protein Interface; 2.6.2 Lipid
Selectivity of β -Barrel Membrane Proteins; 2.7 Orientation of β -Barrel
Membrane Proteins in Lipid Bilayers; 2.7.1 Lipid Dependence of the β -
Barrel Orientation Relative to the Membrane; 2.7.2 Inclination of the β -
Strands Relative to the β -Barrel Axis in Lipid Bilayers; 2.7.3
Hydrophobic Matching of the β -Barrel and the Lipid Bilayer; 2.8 In vivo
Requirements for the Folding of OMPs; 2.8.1 Amino Acid Sequence
Constraints for OmpA Folding in vivo
2.8.2 Periplasmic Chaperones

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
