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Nota di contenuto	Pseudo-peptides in Drug Discovery; Contents; Preface; List of Contributors; 1 Versatile Oligo(N-Substituted) Glycines: The Many Roles of Peptoids in Drug Discovery; 1.1 Introduction; 1.2 Peptoid Synthesis; 1.2.1 Solid-Phase Synthesis; 1.2.2 Sub-monomer Solid-Phase Method; 1.2.3 Side Reactions; 1.2.4 Post-Synthetic Analysis; 1.3 Drug Discovery via Small-Molecule Peptoid Libraries; 1.3.1 Peptoid Drugs from Combinatorial Libraries; 1.3.2 Peptoid Inhibitors of RNA-Protein Interactions; 1.4 Peptoid-Based Drug Delivery and Molecular Transporters: Cellular Uptake 1.4.1 Peptoid Mimics of HIV-Tat Protein1.4.2 Cellular Delivery of Nucleic Acids; 1.5 Peptoid Mimics of Peptide Ligands; 1.6 Peptoids with Folded Structure; 1.6.1 Restricting Conformational Space; 1.6.2 Peptoid Helices; 1.6.2.1 CD and NMR Studies of a Helical Peptoid Pentamer with -Chiral Aromatic Side Chains; 1.6.2.2 CD Studies of Longer Peptoid

Helices Containing -Chiral Aromatic Side Chains; 1.6.2.3 Structural Studies of Peptoids with Aliphatic Side Chains by CD, NMR, and X-ray Crystallography; 1.6.2.4 Summary; 1.6.3 Protein-mimetic Structures
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1.8.5 Develop Peptoid Shuttles for Intracellular Import of Xenobiotic Agents1.8.6 Optimize Pharmacological Profile of Oligopeptoids; 1.9 Conclusion; 1.10 References; 2 -Peptides, -Peptides and Isosteric Backbones: New Scaffolds with Controlled Shapes for Mimicking Protein Secondary Structure Elements; 2.1 Introduction; 2.2 Molecular Organization in -Peptide Oligomers; 2.2.1 Historical Background; 2.2.2 -Amino Acids versus -Amino Acids: An Enormous Increase in Chemical Diversity; 2.2.3 Helical Folds; 2.2.3.1 The 3(14)-Helix; 2.2.3.2 The 12/10- (10/12-) Helix; 2.2.3.3 The 2.5(12)-Helix
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2.5.2 Example 2: N,N -Linked Oligoureas as -Peptide Mimetics

Sommario/riassunto

Peptides are among the most versatile bioactive molecules, yet the do not make good drugs, because they are quickly degraded or modified in the body.To overcome this problem, stable and at the same time biologically active pseudo-peptides have been developed. These novel compounds open up new perspectives in drug design by providing an entire range of highly specific and non-toxic pharmaceuticals.This is the first work devoted to the topic and draws together knowledge gained on different types of peptidomimetics and other pseudo-peptides with drug properties. As such, it includes pepto