

Biochemistry of Peptide Antibiotics

Recent Advances in the Biotechnology of β -Lactams and Microbial Bioactive Peptides

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Peptide Antibiotics, β -Lactams and bioactive Peptides have maintained a significant position in research and applications. Classical Cyclopeptides like Gramicidin S, Cyclosporin, Bleomycins, the various Proteinase Inhibitors, Siderophores, new β -Lactams and Vancomycin type Glycopeptides are presented from their representative leads in basic research in biosynthesis, genetics, chemistry, pharmacology, and biotechnology. The main developments of the last years have been reviewed, and structural information on naturally occurring Peptides has been compiled.

This monograph will serve researchers in the Peptide field as source and reference book.

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Bioactive Peptides - Recent Advances and Trends · Gramicidin S Synthetase · Formation on *N*-methylated Peptide Bonds in Peptides and Peptidols · Peptide Bond Synthesis by Enzyme-Catalyzed Acyl-Transfer · Genetics of Siderophore Biosynthesis and Transport · Discovery of new β -Lactam and β -Lactam like Antibiotics from Bacteria · Glycopeptide Antibiotics of the Vancomycin Group · Peptide Phytotoxins from Plant Pathogenic Fungi · Chemical Synthesis and Bioactivity of Gramicidin S and Related Peptides · Cyclosporine: Synthetic Studies, Structure-Activity Relationships, Biosynthesis and Mode of Action · Biosynthesis and Chemical Synthesis of Bleomycin · Small Molecular Protease Inhibitors and Their Biological Effects · Directed Biosynthesis of Neoviridogriseins · Biochemical Genetical and Biotechnical Aspects of Antibiotic Production via Immobilised Biocatalysis · Compilation of Peptide Structures - A Biogenetic Approach · Contributors · Index

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