Streptomyces
Molecular Biology and Biotechnology

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Streptomycetes are Gram-positive, high GC-content, sporulating bacteria found predominantly in soil. Streptomycetes are characterised by a complex secondary metabolism producing antibiotic compounds and other metabolites with medicinal properties. In recent years genomic studies, genomic mining and biotechnological approaches have been employed in the search for new antibiotics and other drugs.

With contributions from some of the leading scientists in the field, this volume documents recent research and development in streptomycetes genomics, physiology and metabolism. With a focus on biotechnology and genomics, the book provides an excellent source of up-to-date information. Topics include: genome architecture, conjugative genetic elements, differentiation, protein secretion, central carbon metabolic pathways, regulation of nitrogen assimilation, phosphate control of metabolism, gamma-butyrolactones and their role in antibiotic regulation, clavulanic acid and clavams, genome-guided exploration, gene clusters for bioactive natural products, genomics of cytochromes p450.

Essential reading for research scientists, biotechnologists, graduate students and other professionals involved in streptomycetes research, antibiotic and antimicrobial development, drug discovery, soil microbiology and related fields. A recommended text for all microbiology laboratories.

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