MOLECULAR GENETICS OF TUMOR PROGRESSION
AND METASTASIS

An AACR Special Conference in Cancer Research
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Application Deadline: December 6, 1993

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Editors: Richard H. Baltz, George D. Hegeman, and Paul L. Skatrud

This valuable book covers the important use of bacterial and other microbial systems in industry. It brings together the work of leading researchers who seek to maximize the industrial potential of these organisms for development of pharmaceutical products.

The contents are based on the proceedings of the Fifth ASM Conference on the Genetics and Molecular Biology of Industrial Microorganisms (Bloomington, Ind., 1992) which returned to a focus on prokaryotes and lower eukaryotes. The book offers a balanced coverage of streptomycetes, fungi and yeasts, and other bacteria, including Escherichia coli as well as emerging bacterial systems. The topics reflect major trends in research that have potential immediate and future industrial applications. The abstracts of the posters presented at the 1992 conference are included in this volume. Contributors were drawn in nearly equal numbers from industry and academia, and from more than a dozen countries. Chapters range from detailed accounts of well-developed systems with established practical applications to reports of progress and accounts of microbial systems that are just becoming accessible to genetic manipulation and exploitation.

Professional researchers and scientists interested in drug development and use of microbial systems for pharmaceutical product development will find this book useful.

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Part 1. Global Regulatory Mechanisms (3 chapters)
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Part 3. Regulation of Transcription and Translation (2 chapters)
Part 4. Emerging Microbial Systems (5 chapters)
Part 5. Heterologous Gene Expression and Secretion (4 chapters)
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Indexes


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Editors: Patrick J. Piggot, Charles P. Moran, Jr., and Philip Youngman

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1. Signal Transduction Network Controlling Degradative Enzyme Synthesis and Competence in Bacillus subtilis (Frank Kunst, Tarek Msadek, and Georges Rapoport)
2. Regulation of Gene Expression at the Onset of Stationary Phase in Escherichia coli (Gjalt Huisman and Roberto Kolter)
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6. Morphogenesis and Gene Expression during Sporulation (Patrick J. Piggot, James E. Bylund, and Michael L. Higgins)
7. Establishment of Compartment-Specific Gene Expression during Sporulation in Bacillus subtilis (Patrick Stragier, Peter Margolis, and Richard Losick)
8. Intercellular and Intercompartmental Communication during Bacillus subtilis Sporulation (Lee Kroos and Simon Cutting)
9. DNA Structure, Spore Formation, and Spore Properties (Peter Sello)
11. A Few Good Genes: Developmental Loci in Bacillus subtilis (Patrick Stragier)


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**Diagnostic Molecular Microbiology**

**Principles and Applications**

Editors: David H. Persing, M.D., Ph.D., Thomas F. Smith, Ph.D., Fred C. Tenover, Ph.D., Thomas J. White, Ph.D.

Recent developments in nucleic acid-based diagnostics have the potential to profoundly influence the clinical microbiology laboratory and ultimately the way physicians treat their patients. *Diagnostic Molecular Microbiology* is the first major text to provide complete coverage of both the principles and applications of molecular diagnostic methods as they pertain to infectious diseases. Written and edited by leading international experts, this text provides both the theoretical and practical framework for understanding the powerful uses of nucleic acid amplification technologies and for applying these techniques to the rapid detection and characterization of microbial pathogens (bacterial, viral, fungal, parasitic) in the clinical laboratory.

The nine chapters in part I (Principles) summarize the basic scientific theory underlying the emerging discipline of molecular diagnostics. The sixty-six protocols in part II (Applications) offer proven applications of molecular diagnostic techniques for the diagnosis of infectious diseases — essentially a compendium of “molecular recipes” from leading laboratories around the world.

Written in the tradition of ASM’s other classic manuals, *Diagnostic Molecular Microbiology* is a valuable reference and teaching tool for any clinical microbiology laboratory.

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This is the long awaited revision of ASM's extremely popular Manual of Methods for General Bacteriology (1981, Gerhardt et al.). In keeping with the immense impact molecular biology has had on bacteriology and to accurately reflect the revised contents, the title of the new edition has been changed to Methods for General and Molecular Bacteriology (MGMB).

The objective of MGMB remains the same as for its popular predecessor: "to meet the need for a compact, moderately priced handbook of reliable, basic methods for practicing general bacteriology in the laboratory." As a laboratory methods manual, MGMB covers all kinds of bacteria, archaeabacteria as well as eubacteria, complementing systematics treatises such as Bergey's Manual of Systematic Bacteriology and The Prokaryotes.

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CONDENSED CONTENTS (Section Editor)
Methodology for General and Molecular Bacteriology (Philipp Gerhardt)
I. Morphology (R. G. E. Murray; 5 chapters, 1 is new)
II. Growth (Philipp Gerhardt; 7 chapters)
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IV. Metabolism (Willis A. Wood; 4 chapters)
V. Systematics (Noel R. Krieg; 4 chapters, 2 are new)
VI. General Methods (Philipp Gerhardt; 3 chapters, 2 are new)


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