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Nota di contenuto	Mutation and DNA repair: the consequences of error and mechanisms for remaining the same / John R. Battista & Ashlee M. Earl -- RecA-dependent mechanisms for the generation of genetic diversity / Steven J. Sandler & Klaus Nuesslein -- Non-homologous recombination / Francois Cornet & Michael Chandler -- Duplicating genes and gene loading / Renato Fani -- Multiple Chromosomes / Samuel Kaplan, Chris Mackenzie & Madhusudan Choudhary -- Generating intracellular processes / Martin J. Day & Robert V. Miller -- Conjugation / Guenther Koraimann -- Conjugative transposons / Abigail Salyers -- Bacteriophage-mediated transduction: an engine for change and evolution / Robert V. Miller. Transformation / Martin J. Day -- Horizontal gene transfer and the real world / Robert V. Miller & Martin J. Day -- Stationary phase-induced mutagenesis: is directed mutagenesis alive and well within neo-darwinian theory? / Ronald E. Yasbin -- Temporal segregation: succession in biofilms / Susse Kirkelund Hansen & Sren Molin. Spatial segregation: the deep subsurface story / David L. Balkwill -- Are you out there? intercellular signaling in the microbial world / Mike Manefield, Sara L. Turner, Andrew K. Lilley & Mark J. Bailey -- Gene associations in bacterial pathogenesis: the pathogenesis island / Eshwar Mahenthiralingam -- Strategies in antagonistic and co-operative interactions / Angela E. Douglas -- Why are genes lost? why do genes persist? / Martin J. Day & Robert V. Miller -- Horizontal transfer, genomic diversity, and genomic differentiation / Robert Milkman -- Horizontal gene transfer and

prokaryotic genome evolution / King Jordan & Eugene V. Koonin --
What makes a bacterial species? when using molecular sequence data,
is rRNA enough? / Lorraine G. van Waasbergen -- Can we understand
bacterial phylogeny and does it make any difference anyway? / Robert
V. Miller & Martin J. Day.

Sommario/riassunto

An essential introductory overview of the field of bacterial evolution.
Covers fundamental topics crucial to the understanding of microbial
evolution. Presents significant technological changes of the past
decade, with discussion of and reference to the newest techniques
employed in the field. Contains a selection of study questions after
each chapter, and each section concludes with a chapter summarizing
highlights and themes presented in that section. Includes general
references for further reading suggestions, historical references, and
specific references citing papers in a given subject area. Serves as a
text for students in the fields of microbiology and related life sciences,
and as a resource for practicing microbiologists.
