

Preface

The field of stress and environmental control of gene expression in bacteria is a very active field, moving rapidly and in multiple directions. An extensive overview book has existed since 2011, when the excellent *Bacterial Stress Responses* book of reviews (ASM Press) appeared. This book is an update and extension of that volume, with chapters mainly based on publications post 2010 or from *de novo* contributions; it is thus a complementary rather than competitive work, which focuses on original research papers and reviews in a large variety of different organisms, rather than reviewing model systems only. The large outline covers 23 different topics and provides selected new reviews as well as a series of research chapters for each topic. Altogether, it provides a detailed and broad overview of the field and emphasizes differences and commonalities in different organisms.

As mentioned, this book contains not only reviews but also many recent, original research chapters. The authors have been asked to provide succinct materials and methods, and to refer back to their original publication when deemed appropriate. This book provides an extensive Index to facilitate the search for key terms. Special attention has been given to cross-referencing the chapters in the book. The book appears in print as well as

in electronic format at the Wiley website, in order to facilitate downloading of particular chapters.

The primary audience is (clinical) microbiologists, biochemists, geneticists, and microbial ecologists working in the field of stress and environmental control of gene expression and adaptation to stress conditions.

These books are in principle research-intensive books, but they could be used in upper level undergraduate and graduate-level courses in Microbiology, Molecular Genetics, Biochemistry, and Microbial Ecology. These books are particularly useful for instructors who want to integrate aspects of environmental control of gene expression (response to stresses) in their upper level courses, and they can assign particular chapters to students to present back to the class. It is particularly useful for post-docs and for graduate or advanced undergraduate students who are working in laboratories focused on environmental control of gene expression and adaptation in bacteria to broaden their horizons. It is also very useful for those wanting to familiarize themselves with this field of study.

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