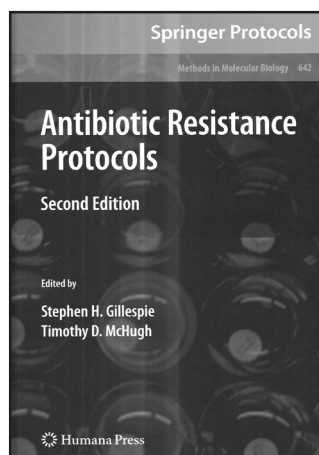


## MICROBIOLOGY

GILLESPIE, S.H.; MCHUGH, T.D. (Eds.) *Antibiotic resistance protocols*. 2.ed. New York: Humana Press, 2010. 227 p.



This is a well produced book, full of protocols on a number of modern molecular techniques applicable not only for research into antibiotic resistance, but in microbiology as a whole. The articles are of a uniformly high level, well illustrated and referenced, working with logical and easy to follow protocols.

The content of this book is divided into four parts presenting 17 chapters, each accompanied by protocols for experimental development. The first approach is epidemiological and population genetics presented in two chapters, focusing mainly on the molecular typing of *Staphylococcus aureus* resistant to methicillin and the second refers to the dynamic study of nasopharyngeal carriers of pneumococci. The second part refers to genomic and gene expression, and is divided into four chapters that deal with determination of silent resistance genes and glycopeptide resistance inducer genes, expression of genes by real time PCR techniques and DNA micro arrays to study transcriptional response to antimicrobial compounds. The third part deals with the convenience of Physiology and mutation in bacteria, divided into four chapters that deal with the measure of the sensitivity of bacteria resistant to antibiotics, against the activity of peroxidase and catalase; measurement of environmental stress effects on the frequency of mutation, among others. Finally, the fourth part covers the detection of resistance and spans seven chapters, with three chapters focused on evaluation of the mechanism of resistance mediated by efflux and the others addressing the fast characterization of beta-lactamases by quick multiplex PCR tests to detect inhibitors of *Mycobacterium tuberculosis* and rapid analysis of resistant mutants by means of pyrosequencing. This book is excellent for anyone involved in research on antibiotic resistance, whether students, researchers or professionals in the field of microbiology who use modern molecular techniques. Readers can find answers to queries on a

number of well-defined and established cutting-edge techniques.

Prof. Elsa Masae Mamizuka  
FCF/USP