

## Introduction

This fourth number of the Microbiology Book Series published by Formatex Research Center (Spain) offers the latest scientific results in antimicrobial research. Readers will find a major collection of knowledge, approaches, methods and discussions on the latest advances and challenges in antimicrobial research in a compilation of 214 chapters written by active researchers using original research materials but presented in a way accessible to a public beyond those ones who are specialists in the topic dealt.

The book was divided into the following sections:

- Antimicrobial surfaces - Biofilms - Consumer products (volume 1)
- Resistance and susceptibility - Mechanisms of action - New targets - Techniques and methods - Chemical and physical agents (volume 1)
- Antimicrobial natural products – Biocontrol (volume 2)
- Clinical microbiology - Strengthening the immune system - Public health (volume 3)

Clearly, this is a truly inter- and multi-disciplinary edition. Pieces of research works dealing with very different academic fields: microbial adhesion to surfaces, biofilm formation, control and eradication, physical and chemical surface modification, antimicrobials in consumer products, microbial resistance to antibiotics and biocides, molecular mechanisms, emerging and re-emerging bacteria and fungi in humans, animals and plants, antimicrobial mechanisms of action, techniques and methods, interfering microbe-microbe communication (quorum sensing), synthesis of novel chemical compounds for antimicrobial action, exploitation of physical properties for killing/inactivating microbes, antimicrobial substances from terrestrial and marine organisms, antimicrobial peptides, essential oils, bacteriocins, biocontrol approach to microbial invasions, bacteriophages, clinical microbiology - clinical trials, strengthening the immune system, vaccines, public health, responsible use of antibiotics...were included in this book.

We hope readers will find this fourth number of the Microbiology Book Series interesting and stimulating, and look forward to receiving new proposals for the new edition in 2015.

A. Méndez-Vilas, Editor