

METHODS IN MOLECULAR BIOLOGY™

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High-Throughput Next Generation Sequencing

Methods and Applications

Edited by

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 **Humana Press**

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Preface

The increasing demand for more cost-effective high-throughput DNA sequencing in this postgenome era has triggered the advent of the “next generation sequencing” methods. Due to their novel concepts and extraordinary high-throughput sequencing capacity, these methods allow researchers to grasp system-wide landscapes of the complex molecular events taking place in various biological systems, including microorganisms and microbial communities. These methods are now being recognized as an essential tool for more comprehensive and deeper understanding of the mechanisms underlying many biological processes. With realistic expectation that these methods will continue to improve at a rapid pace, biological scientists are excited about the growing possibilities for new research approaches that can be offered by these technologies. In *High-Throughput Next Generation Sequencing: Methods and Applications*, expert researchers explore the most recent advances in the applications of next generation sequencing technologies with emphasis on microorganisms and their community. However, the methods described in this book will also find general applications on the study of any living organisms. As part of the highly successful *Methods in Molecular Biology*TM series, the chapters compile step-by-step readily reproducible laboratory protocols, lists of the necessary materials and reagents, and tips on troubleshooting and avoiding known pitfalls.

Comprehensive and cutting-edge, *High-Throughput Next Generation Sequencing: Methods and Applications* is an excellent collection of chapters to aid all scientists who wish to apply this innovative research tools to enhance their own pursuits in microbiology and also biology in general.

Fayetteville, AR

***Young Min Kwon
Steven C. Ricke***

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