Preface

Transcriptomics technologies are the techniques used to study an organism's transcriptome, the sum of all of its RNA transcripts. The information content of an organism is recorded in the DNA of its genome and expressed through transcription. Here, mRNA serves as a transient intermediary molecule in the information network, whilst non-coding RNAs perform additional diverse functions. A transcriptome captures a snapshot in time of the total transcripts present in a cell. Transcriptomics technologies provide a broad account of which cellular processes are active and which are dormant. A major challenge in molecular biology is to understand how a single genome gives rise to a variety of cells. Another is how gene expression is regulated.[1]

In the present book, eleven typical literatures about transcriptomics published on international authoritative journals were selected to introduce the worldwide newest progress, which contains reviews or original researches on transcriptomics. We hope this book can demonstrate advances in transcriptomics as well as give references to the researchers, students and other related people.

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[1] https://en.wikipedia.org/wiki/Transcriptomics_technologies