

Gene expression programs are regulated by a complex network of various structural DNA elements, transcription factors, chromatin modifications and non-coding RNAs. A nearly infinite diversity of regulatory factors holds the key to the genome's functioning principles. This book makes further contribution to the field and presents several research studies that uncover certain aspects of gene regulation. The research chapters describe the discovery and properties of novel human genes and new functional properties of the transcription factors TFIIA, TFIID and E2F. An elegant model for the three-dimensional organization of the active ribosomal RNA genes proposes effective solutions for the long-standing questions about nucleolar structure and functioning. In addition to the five research chapters, a thorough review on transcription with over 1000 references describes the current knowledge in significant details. This book will be useful to researchers at different levels in the transcription field, as well as to the broad audience interested in gene regulation.

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Sergey Denissov studied biology at the Novosibirsk State University, Russia. He defended his PhD in Molecular Cell Biology at the Radboud University Nijmegen. He is a researcher on the developmental epigenetic mechanisms at the Nijmegen Centre for Molecular Life Sciences, The Netherlands.



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