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Sommario/riassunto

This book provides a timely review of the role of histone modifications in epigenetic control of gene expression. Topics covered include: basic mechanisms of molecular recognition of histone post-translational modification (PTMs); combinatorial readout of histone PTMs by tandem epigenome reader domains; genome-wide profiling of histone PTM interactions; small molecule modulation of histone PTM interactions and their potential as a new approach to therapeutic intervention in human diseases. All chapters were written by leading scientists who made the original key discoveries of the structure and mechanism of evolutionarily conserved reader domains, which serve to direct gene transcription in chromatin through interactions with DNA-packing histones in a PTM-sensitive manner.