Record Nr. UNINA9910877717103321 Small molecule DNA and RNA binders: from synthesis to nucleic acid **Titolo** complexes // M. Demeunynck, C. Bailly, W. D. Wilson (eds.) Pubbl/distr/stampa Weinheim, : Wiley-VCH, c2003 **ISBN** 1-280-52066-3 9786610520664 3-527-60566-5 3-527-60178-3 Descrizione fisica 1 online resource (756 p.) Altri autori (Persone) DemeunynckM (Martine) BaillyChristian WilsonW. D (W. David) Disciplina 572.8 Soggetti **DNA-drug** interactions Molecular biology Binding sites (Biochemistry) Nucleic acids Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references and index. Nota di bibliografia Small Molecule DNA and RNA Binders; Contents; Preface; Contributors; Nota di contenuto 1 Forty Years On; 1.1 Early Experiments Prior to Molecular Modeling; 1.2 Formulation of Molecular Models and Mechanisms of Binding to DNA; 1.3 Specificity of Nucleotide Sequence Recognition; 1.4 Details at the Atomic and Molecular Levels; 1.5 Identification of Motifs for Drug Design: 1.6 Actions on Nucleoproteins. Chromatin. and Enzymes: References; 2 Targeting HIV RNA with Small Molecules; 2.1 Introduction; 2.1.1 Translation; 2.1.2 RNA Viruses; 2.2 Small Molecules

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## Sommario/riassunto

The development of molecules that selectively bind to nucleic acids has provided many details about DNA and RNA recognition. The range of such substances, such as metal complexes, peptides, oligonucleotides and a wide array of synthetic organic compounds, is as manifold as the functions of nucleic acids. Nucleic acid recognition sequences are often found in the major or minor groove of a double strand, while other typical interactions include intercalation between base pairs or the formation of triple or quadruple helices. One example of a binding mode that has recently been proposed is end st