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Titolo	Aptamers : Biotechnological Applications of a Next Generation Tool // edited by Gulab Singh Yadav, Vikas Kumar, Neeraj K. Aggarwal
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Nota di contenuto	Aptamer: The Science of Synthetic DNA -- Recent updates for isolation of aptamers for various biothreat agents using different strategies and their role in detection applications -- Aptamer: A Futuristic Approach in Diagnosis Rivaling Antibodies -- Aptamer: Apt System for Target-specific Drug Delivery -- Aptamers: Novel therapeutic and diagnostic molecules -- Different approaches for aptamer conjugated drugs preparation -- Nucleic acid guided molecular tool for in-vivo theranostic applications -- Current development and future prospects of aptamer based protein targeting -- Aptasensor- Possible design and strategy for aptamer based sensor -- Aptamer-based biosensors for detection of environmental pollutants -- Role of aptamers in plant

defense mechanism against viral diseases -- Aptamer- a next generation tool for application in agricultural industry for food safety. .

Sommario/riassunto

The book discusses the basics of aptamers and the advent of aptamer-based technology in recent times. The book covers the diverse applications of aptamers, such as in detection of animal and plant pathogens, disease diagnosis and therapeutics, environmental contamination detection etc. Besides these applications, the book also describes the use of these synthetic or modified DNA, as drug delivery vehicles. The different chapters describe how the binding capacity and specificity of aptamers can be exploited in various ways. The book also discusses how these attributes of aptamers can outdo the antibody technology in biomedical and diagnostic solutions. This crisp and concise book gives the readers an insight into the most recent biotechnological applications of aptamers. .
