Record Nr. UNINA9910298409503321 Autore Luo Yunbo Titolo Functional Nucleic Acid Based Biosensors for Food Safety Detection // by Yunbo Luo Singapore:,: Springer Singapore:,: Imprint: Springer,, 2018 Pubbl/distr/stampa **ISBN** 981-10-8219-7 Edizione [1st ed. 2018.] 1 online resource (XIV, 353 p. 189 illus., 146 illus. in color.) Descrizione fisica 572.84 Disciplina Soggetti Nucleic acids Biomedical engineering Food—Biotechnology **Nucleic Acid Chemistry** Biomedical Engineering/Biotechnology Food Science Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Functional nucleic acid based biosensors for food safety detection --Functional nucleic acid biosensor for Microorganisms Detection --Functional Nucleic Acids for GMOs Detection -- Functional Nucleic Acids for Metal Ion Detection -- Functional Nucleic Acid Biosensors for Small Molecules -- Detection of epigenetic nucleic acid markers. Sommario/riassunto This book highlights the development of a functional nucleic acid based biosensor detection method in the context of food safety. Although there have been major advances in food processing technology in both developed and developing countries, food safety assurance systems are generally becoming more stringent, in response to growing (both real and perceived) food safety problems. These problems are due in part to foodborne microorganisms, heavy metals. and small chemical molecules (biological toxins, pesticide residues, and veterinary drug residues), etc. In addition, the nucleic acid biomarkers (DNA methylation, microRNA, and circRNA) induced by these risk factors are also closely related to food safety. Accordingly, this book

offers a brief guide to targets and strategies in functional nucleic acid based biosensors for food safety detection. Divided into several

chapters that focus on various respective targets, it will be a valuable resource for students and researchers in the fields of biosensor detection, food science etc.