

1. Record Nr.	UNINA9910349443103321
Autore	Koo Kevin M
Titolo	Advancing Gene Fusion Detection Towards Personalized Cancer Nanodiagnostics // by Kevin M. Koo
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-31000-0
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (XIII, 102 p.)
Collana	Springer Theses, Recognizing Outstanding Ph.D. Research, , 2190-5061
Disciplina	610.28
Soggetti	Biotechnology Nanotechnology Biomedical engineering Cancer Biomedical Engineering and Bioengineering Cancer Biology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Unifying Next-Generation Biomarkers and Nanodiagnostic Platforms for Precision Prostate Cancer (PCa) Management -- Colorimetric Gene Fusion Diagnostics for Visual Binary Readout -- Label -Free Surface-Enhanced Raman Scattering Detection System for Clinical Biomarker Targets -- Amplification-Free Electrochemical RNA Biomarker Sensing -- Simultaneous Analysis of Multiple Biomarkers via High-Throughput Parallel Profiling.
Sommario/riassunto	This book presents a unique concept of merging nanotechnology and novel urinary biomarkers for accurate early prostate cancer detection, discussing an entire progressive pipeline of innovative new strategies in biosensor development, from a simple colorimetric system to a complex system for simultaneous multiple biomarker sensing. For newcomers to the field of nucleic acid biosensing, it also describes various isothermal amplification and amplification-free strategies, which are currently the main research areas. Lastly, the book introduces and demonstrates the notion of clinical nanobiosensor

validation toward clinical translation: the ultimate aim of researchers in the biosensor field. This book is a valuable reference resource learners seeking inspiration for cancer biosensor development.
