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Titolo	Urine Proteomics in Kidney Disease Biomarker Discovery [[electronic resource] /] / edited by Youhe Gao
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Descrizione fisica	1 online resource (202 p.)
Collana	Advances in Experimental Medicine and Biology, , 0065-2598 ; ; 845
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Soggetti	Proteomics Nephrology Molecular biology Molecular Medicine
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Urine is a better biomarker source than blood especially for kidney diseases -- Urine reflection of changes in blood -- Urinem facilitates kidney disease biomarker research -- Human Urine proteome: a powerful source for clinical research -- Exosomes in urine biomarker discovery -- Urinary proteins with post-translational modifications -- Applications of peptide retention time in proteomic data analysis -- Urine Sample Preparation in 96-Well Filter Plates to characterize inflammatory and infectious diseases of the Urinary Tract -- Variations of human urinary proteome -- Evolution of the urinary proteome during human renal development and maturation -- Hormone-dependent changes in female urinary proteome -- Effects of exercise on the urinary proteome -- Effects of Diuretics on Urinary Proteins -- Applications of urinary proteomics in renal disease research using animal models -- The application of urinary proteomics for the detection of biomarkers of kidney diseases -- Dynamic changes of urinary proteins in focal segmental glomerulosclerosis model -- Using isolated rat kidney to discover kidney origin biomarkers in urine -- Comparing plasma and urinary proteomes to understand kidney function -- Urinary Protein Biomarker Database: A Useful Tool for Biomarker Discovery.

Sommario/riassunto

This book systematically summarizes the ideas and technologies used in urine proteome analysis. It argues that change is the core of biomarker definition since the body uses its homeostatic mechanisms to correct changes in the blood. This means that urine is probably a better source of biomarkers than blood. A roadmap to the urinary biomarker era is proposed, and researchers are reminded of the potential opportunities and risks in their study design. Kidney diseases are emphasized as they produce the most significant changes in urine. This book tries to show researchers and graduate students, who are in or entering the field, "all things considered" rather than "the current affair". .
