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Preface -- Roles of androgen receptor coregulators and cell signaling in regulation of androgen-responsive genes -- Selective and classical Androgen Response Elements in androgen-regulated gene expression -- Negative androgen-response elements in androgen target genes --Chromatin looping and long distance regulation by androgen receptor -- The Functionality of Prostate Cancer Predisposition Risk Regions is revealed by AR Enhancers -- Mechanisms of ARE-independent Gene Activation by the Androgen Receptor in Prostate Cancer Cells: potential targets for better intervention strategies -- Androgen action, Wnt signaling, and prostate tumorigenesis -- Toward Revealing the Complexity of Androgen Responsive Protein and Non-coding Transcripts in Prostate Cancer -- Androgen-Responsive Gene Expression in Prostate Cancer Progression -- Androgen receptor regulated genes in prostate cancer initiation vs metastasis --Androgen-Independent Induction of Androgen-Responsive Genes By Interleukin-6 Regulation -- The effect of AR overexpression on androgen signaling in prostate cancer -- The expression signature of androgen receptor splice variants and their distinctive transcriptional activities in castration-resistant prostate cancer -- Androgen regulation of the cell cycle in prostate cancer -- Androgen Receptor Signaling Interactions Control Epithelial-Mesenchymal Transition (EMT) in Prostate Cancer Progression -- Androgen receptor regulation of

serum response factor signaling in prostate cancer -- Regulation of angiogenesis by androgen-responsive gene EAF2 -- The role of miR-21, an androgen-regulated microRNA, in prostate cancer -- Androgen dependent oncogenic activation of ETS transcription factors by recurrent gene fusions in prostate cancer: Biological and Clinical Implications -- Clusterin as a target for treatment of castration-resistant prostate cancer -- Index.

## Sommario/riassunto

Recent studies demonstrated a key role of the androgen receptor in the development of castration-recurrent or -resistant prostate cancer (CRPC), which is deadly and in urgent need of more effective therapies. Understanding the functions of androgen-responsive genes and their regulation and deregulation in prostate cancer progression may lead to new approaches to prevent and treat prostate cancer patients. This book provides an up-to-date review of the overall androgen-responsive gene expression program and the regulation, function, and clinical relevance of both protein coding and non-coding androgen-responsive genes. Experts in the field of androgen action and prostate cancer research discussed the importance of DNA elements, chromatin structure, cellular signaling, and cell-cell interactions in the regulation of androgen-responsive genes in the context of prostate cancer progression, including the development of CRPC. This book is intended for individuals interested in cancer endocrinology and medical and healthcare professionals involved in prostate cancer research.