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analysis in endocrine health and disease / / edited by Stuart

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Endocrinology - Methodology Endocrine glands - Diseases

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Note generali Description based upon print version of record.

Nota di bibliografia Includes bibliographical references and index.

Nota di contenuto Microarray-based gene expression analysis of endocrine systems:

principles of experimental design and interpretation. -- Gene expression profiles and transcription factors involved in parathyroid hormone signaling in osteoblastic cells. -- Analysis of growth hormone effects on hepatic gene expression in hypophysectomized rats. -- Gene expression profiling in leiomyoma in response to GnRH therapy and TGF-beta. -- Gene profiling analysis of androgen receptor mediated function. -- Interrogating estrogen receptor [alpha] signaling in breast cancer by chromatin immunoprecipitation microarrays. -- Gene expression analysis of the adrenal cortex in health and disease. -- DNA microarray analysis of human uterine decidualization. -- Large-scale DNA microarray data analysis reveals glucocorticoid receptor-mediated breast cancer cell survival pathways. -- Application of microarrays for gene transcript analysis in type 2 diabetes. -- DNA microarray analysis of effects of TSH, iodide, cytokines, and therapeutic agents on gene expression in cultured human thyroid follicles. -- Genomics and

polycystic ovary syndrome (PCOS): the use of microarray analysis to

## Sommario/riassunto

identify new candidate genes. -- Microarray analysis of alterations induced by obesity in white adipose tissue gene expression profiling. -- Novel molecular signaling and classification of human clinically nonfunctioning pituitary adenomas identified by microarray and reverse transcription-quantitative polymerase chain reaction. -- Gene expression studies of prostate hyperplasia in prolactin transgenic mice. In recent years, the development of new technologies capable of monitoring genome function has resulted in fewer hopeful estimates and increasingly solid depictions of genome output from individual samples. Genomics in Endocrinology focuses on exciting new advances in endocrinology resulting from DNA microarray studies and includes a comprehensive introduction to the use of DNA microarrays in endocrinology. The volume provides the basis for further understanding of the usefulness of microarray analyses in endocrinology research. Topics discussed are the methodology of DNA microarrays and general methods for the analysis of microarray data, as well as studies of a wide variety of normal and abnormal endocrine cells. In the introductory chapter, the volume's editors describe several issues in hypothesis formulation, experimental design, data analysis, and follow-up studies that may corroborate, validate, and extend hypotheses gained through microarray analyses. The contributed chapters span a variety of applications that we have divided into the areas of (1) genomic insights into molecular mechanisms responsible for hormone action, (2) genomic characterizations of endocrine producing tissues, and (3) genomic manifestations of diseases of hormonal systems. A volume on the cutting-edge of technology, Genomics in Endocrinology will provide researchers with an authoritative volume on the most recent advances in monitoring

genome function.