

Proteomics

Targeted Technology, Innovations and Applications



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Targeted proteomics is a technology for detecting proteins of interest with high sensitivity, quantitative accuracy and reproducibility. The analysis of a pre-defined group of proteins provides precise, quantitative and sensitive data to scientists and clinicians and can provide information on a subset of proteins important for their biological function.

In this book a panel of high-profile authors provides an overview of targeted proteomics in biomedical science. The book is focused on current, state-of-the-art technology and applications and is a valuable source of information for everyone working in this field. The first part of the book provides detailed examples of the application of targeted proteomics in biomarker discovery and pathogenesis. The second part is focused on the various tools used in targeted proteomics including bioinformatics approaches while the final section is dedicated to biobanks, a vital aspect of targeted proteomics.

This volume is highly recommended for anyone interested in proteomics, disease pathogenesis, clinical protein science and biomarker discovery.

Chapter 1. Serum Proteomics for Studying Disease Pathogenesis and Identification of Disease Biomarkers. *Parvez Syed, Sandipan Ray, Kishore Gollapalli and Sanjeeva Srivastava*

Chapter 2. Serum Profiling by Targeted Proteomics for Biomarker Discovery. *Paula Diez, Maria Gonzalez-Gonzalez, Noelia Dasilva, Ricardo Jara-Acevedo, Alberto Orfao and Manuel Fuentes*

Chapter 3. Targeted Proteomics. Applications in the Study of Liver Disorders. *Fernando J. Corrales*

Chapter 4. Targeted Proteomics for Chronic Lymphocytic Leukemia. *Rafael Góngora, Paula Díez, Nieves Ibarrola, Rosa M. Dégano, Alberto Orfao and Manuel Fuentes*

Chapter 5. Protein Microarrays: A Versatile Tool for Scientific Discovery. *Johnathan Neiswinger, Jiang Qian and Heng Zhu*

Chapter 6. Bioinformatics Challenges in Targeted Proteomics. *Lars Gustav Malmström*

Chapter 7. Standardized Formats, Report Information Guidelines, Mass Spectrometry-based Repositories and Application Programming Interfaces for Implementing Data Standards in Proteomics. *J. Alberto Medina-Aunon and Juan P. Albar*

Chapter 8. Clinical Protein Science and Targeted Mass Spectrometric Assays: New Frontiers in Disease Link and Biobanking. *Ákos Véghvári and György Marko-Varga*

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