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	 3.2 Difference Gel Electrophoresis: Next Generation of Protein Detection in 2-DE3.2.1 Application of CyDye DIGE Minimal Fluors (Minimal Labeling with CyDye DIGE Minimal Fluors); 3.2.1.1 General Procedure; 3.2.1.2 Example of Use: Identification of Kinetic Proteome Changes upon Ligand Activation of Trk-Receptors; 3.2.2 Application of Saturation Labeling with CyDye DIGE Saturation Fluors; 3.2.2.1 General Procedure; 3.2.2.2 Example of Use: Analysis of 1000 Microdissected Cells from PanIN Grades for the Identification of a New Molecular Tumor Marker Using CyDye DIGE Saturation Fluors 3.2.3 Statistical Aspects of Applying DIGE Proteome Analysis3.2.3.1 Calibration and Normalization of Protein Expression Data; 3.2.3.2 Detection of Differentially Expressed Proteins; 3.2.3.3 Sample Size Determination; 3.2.3.4 Further Applications; References; 4 Biological Mass Spectrometry: Basics and Drug Discovery Related Approaches; 4.1 Introduction; 4.2 Ionization Principles; 4.2.1 Matrix-Assisted Laser Desorption/Ionization (MALDI); 4.2.2 Electrospray Ionization; 4.3 Mass Spectrometric Instrumentation; 4.4 Protein Identification Strategies 4.5 Quantitative Mass Spectrometry for Comparative and Functional Proteomics4.6 Metabolic Labeling Approaches; 4.6.1 (15)N Labeling; 4.6.2 Stable Isotope Labeling Approaches; 4.7.1 Chemical Isotope Labeling at the Protein Level; 4.7.2 Stable Isotope Labeling at the Protein Level; 4.8 Quantitative MS for Deciphering Protein-Protein Interactions; 4.9 Conclusions; References; 5 Multidimensional Column Liquid Chromatography (LC) in Proteomics - Where Are We Now?; 5.1 Introduction; 5.2 Why Do We Need MD-LC/MS Method
Sommario/riassunto	From skillful handling of the wide range of technologies to successful applications in drug discovery this handbook has all the information professional proteomics users need. Edited by experts working at one of the hot spots in European proteomic research, the numerous contributions by experts from the pharmaceutical industry and public proteomics consortia to provide the necessary perspective on current trends and developments in this exciting field.Following an introductory chapter, the book moves on to proteomic technologies, such as protein biochips, protein-protein interaction