

<u>CHAPTER ONE: INTRODUCTION</u>	1
<u>STUDY GOALS AND OBJECTIVES</u>	1
<u>REASONS FOR DOING THE STUDY</u>	1
<u>SCOPE OF REPORT</u>	2
<u>INTENDED AUDIENCE</u>	2
<u>INFORMATION SOURCES</u>	2
<u>ANALYST CREDENTIALS</u>	3
<u>RELATED BCC REPORTS</u>	3
<u>BCC ONLINE SERVICES</u>	4
<u>DISCLAIMER</u>	4
<u>CHAPTER TWO: SUMMARY</u>	5
<u>SUMMARY TABLE GLOBAL PROTEOMICS MARKET BY</u> <u>EQUIPMENT, DATABASE AND SOFTWARE, TECHNOLOGY, AND</u> <u>SERVICES, THROUGH 2014 (\$ MILLIONS)</u>	5
<u>SUMMARY FIGURE GLOBAL PROTEOMICS MARKET BY</u> <u>EQUIPMENT, DATABASE AND SOFTWARE, TECHNOLOGY, AND</u> <u>SERVICES, 2007-2014 (\$ MILLIONS)</u>	6
<u>CHAPTER THREE: MARKET OVERVIEW</u>	7
<u>FIGURE 1 EVOLUTION OF PROTEOMICS AND FUTURE</u> <u>TRANSITION</u>	7
<u>DEFINING THE PROTEOMICS MARKET</u>	8
<u>FIGURE 2 PROTEOMICS MARKET DEFINITION CHART</u>	9
<u>TECHNOLOGICAL INNOVATION BOOSTING PROTEOMICS</u> <u>EQUIPMENT MARKET</u>	10
<u>FIGURE 3 RELATIVE IMPORTANCE OF PROTEOMICS SYSTEMS</u> <u>AND TECHNOLOGY ISSUES</u>	10
<u>FIGURE 4 BCG MATRIX FOR PROTEOMICS EQUIPMENT MARKET,</u> <u>2009</u>	11
<u>TECHNOLOGY REMAINS THE KEY ENABLER</u>	12
<u>FIGURE 5 PATENT ANALYSIS BY TECHNOLOGY, 2006 (%)</u>	13
<u>FIGURE 6 PATENT ANALYSIS BY TECHNOLOGY, 2008 (%)</u>	14
<u>EMERGENCE OF PROTEOMICS SERVICES MARKET</u>	15
<u>FIGURE 7 BCG MATRIX FOR PROTEOMICS SERVICE MARKET–</u> <u>ANALYTICAL LABORATORY SERVICES, 2009</u>	15
<u>KEY FACTORS INFLUENCING THE PROTEOMICS MARKET</u>	16
<u>FIGURE 8 KEY MARKET FACTORS INFLUENCING THE GROWTH</u> <u>OF PROTEOMICS</u>	17
<u>PROTEOMICS MARKET LED BY U.S. CENTRIC PLAYERS</u>	17
<u>FIGURE 9 PATENT ANALYSIS BY ASSIGNEE, 2009* (%)</u>	18
<u>INCREASING ADOPTION OF PROTEOMICS IN DRUG</u> <u>DISCOVERY</u>	19

<u>FIGURE 10 CURRENT AND FUTURE POTENTIAL FOR PROTEOMICS APPLICATION MARKET</u>	20
<u>EQUIPMENT PROVIDERS ARE KEY EARNERS AND DRUG DISCOVERY COMPANIES ARE KEY INVESTORS</u>	20
<u>FIGURE 11 SUPPLY SIDE STAKEHOLDER ANALYSIS, 2009 (%)</u>	21
<u>FIGURE 12 DEMAND SIDE STAKEHOLDER ANALYSIS, 2009 (%)</u>	22
<u>MARKET DRIVERS</u>	22
<u>DRAWBACKS OF GENOMICS IGNITING THE GROWTH OF PROTEOMICS:</u>	22
<u>NEED TO IMPROVE THE SPEED AND EFFICIENCY OF DRUG DISCOVERY</u>	23
<u>PROTEOMICS LEADS TO INCREASE IN R&D PRODUCTIVITY</u>	23
<u>CONTINUED DEVELOPMENT OF TECHNOLOGIES</u>	23
<u>CAPABILITY OF PROTEOMICS IN DEVELOPING PERSONALIZED THERAPY</u>	24
<u>LOWER SAMPLE REQUIREMENTS LEADS TO COST EFFECTIVENESS</u>	24
<u>IDENTIFICATION OF 3-D STRUCTURE OF PROTEINS AIDS IN DRUG DESIGN</u>	24
<u>MULTI-TASKING PLATFORMS CONFIRM THE ROLE OF TARGET PROTEINS IN DISEASE</u>	24
<u>MARKET INHIBITORS</u>	25
<u>MASSIVE DIVERSIFIED DATA LEADS TO THE NEED OF STRUCTURING A STANDARD FORM</u>	25
<u>STRUCTURING OF PROTEINS REQUIRES EXPENSIVE TOOLS AND MACHINES LEADING TO LOWER ADOPTION RATES</u>	25
<u>NEED FOR WELL-QUALIFIED RESEARCHERS AND MANDATORY TRAINING, INCREASES THE COST FACTOR</u>	25
<u>COST AND REIMBURSEMENT COMPLEXITIES EMERGING AS MAJOR HINDRANCES</u>	26
<u>NEED FOR MORE SOPHISTICATED TOOLS FOR HIGHER- END ANALYSIS</u>	26
<u>RIGID STRUCTURE OF PROTEINS COMPLICATE FURTHER RESEARCH</u>	26
<u>LACK OF TECHNOLOGIES TO SPEED UP VALIDATION PROCESS</u>	26
<u>OPPORTUNITIES</u>	27
<u>BIO MARKER IDENTIFICATION OPENING OPPORTUNITIES</u>	27

<u>COMBINATION OF PROTEOMICS AND METABOLOME</u> <u>STUDIES COULD LEAD TO EFFECTIVE PERSONALIZED</u> <u>MEDICINES</u>	27
<u>THE INTEREST OF PROTEOMICS PRODUCTS AND</u> <u>SERVICE SUPPLIERS ENSURES GROWTH OF</u> <u>PROTEOMICS</u>	27
<u>PROTEOMICS DATA ANALYSIS LEADS TO MORE AND</u> <u>IMPROVED DRUGS</u>	27
CHAPTER FOUR: GLOBAL PROTEOMICS EQUIPMENT MARKET	28
<u>TABLE 1 GLOBAL PROTEOMICS EQUIPMENT MARKET BY</u> <u>PRODUCT, THROUGH 2014 (\$ MILLIONS)</u>	28
<u>TABLE 2 GLOBAL PROTEOMICS EQUIPMENT MARKET BY</u> <u>GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	29
<u>PROTEIN CHIPS AND MICROARRAYS</u>	29
<u>TABLE 3 GLOBAL PROTEIN CHIPS AND MICROARRAYS MARKET</u> <u>BY PRODUCT, THROUGH 2014 (\$ MILLIONS)</u>	30
<u>TABLE 4 GLOBAL PROTEIN CHIPS AND MICROARRAYS MARKET,</u> <u>THROUGH 2014 (\$ MILLIONS)</u>	30
<u>TOP PLAYERS</u>	30
<u>TABLE 5 RECENT DEVELOPMENTS</u>	31
<u>BIOCHIPS/SLIDES</u>	31
<u>TABLE 6 GLOBAL BIO CHIPS/SLIDES MARKET BY GEOGRAPHIC</u> <u>REGION, THROUGH 2014 (\$ MILLIONS)</u>	32
<u>Market Drivers</u>	32
<u>Measurement Done by Protein Biochips is Much</u> <u>Easier than Other Traditional Methods of</u> <u>Research</u>	32
<u>Protein Biochips Take Less Time for Analysis,</u> <u>which Makes Them Favorites for Protein</u> <u>Expression Profiling</u>	32
<u>Presence of Competitive Methods for Protein</u> <u>Identification Acts as an Obstacle for Protein</u> <u>Biochips</u>	33
<u>MICROARRAYS</u>	33
<u>TABLE 7 GLOBAL MICROARRAYS MARKET BY PRODUCT,</u> <u>THROUGH 2014 (\$ MILLIONS)</u>	33
<u>TABLE 8 GLOBAL MICROARRAYS MARKET BY GEOGRAPHIC</u> <u>REGION, THROUGH 2014 (\$ MILLIONS)</u>	34
<u>Market Drivers</u>	34
<u>Multi Processing Capacity of Microarrays Driving</u> <u>its Adoption Rate in Proteomics</u>	34
<u>Microarrays Provide Complete Protein Profiling</u> <u>Leading to its Utilization in Basic Research</u>	34

<u>Minimal Use of Materials Makes Microarrays an Inexpensive Technology</u>	35
<u>Use of Recombinant Methods Establishes Direct Connectivity between DNA Sequences</u>	35
<u>Growth of Pharmaceutical Industry is Leading to the Growth of the Microarray Market</u>	35
<u>SCANNERS</u>	35
<u>TABLE 9 GLOBAL SCANNERS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	36
<u>INTEGRATED SYSTEMS</u>	36
<u>TABLE 10 GLOBAL INTEGRATED SYSTEMS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	36
<u>PROTEIN ANALYSIS SYSTEM/PROTEOMICS SYSTEM</u>	37
<u>TABLE 11 GLOBAL PROTEIN ANALYSIS SYSTEM/PROTEOMICS SYSTEM MARKET BY PRODUCT, THROUGH 2014 (\$ MILLIONS)</u>	37
<u>TABLE 12 GLOBAL PROTEIN ANALYSIS SYSTEM/PROTEOMICS SYSTEM MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	38
<u>PROTEIN-PROTEIN INTERACTION/AFFINITY CHARACTERIZATION SYSTEMS</u>	38
<u>TABLE 13 GLOBAL PROTEIN-PROTEIN INTERACTION/AFFINITY CHARACTERIZATION MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	38
<u>MEMBRANE PROTEIN ANALYSIS SYSTEMS</u>	39
<u>TABLE 14 GLOBAL MEMBRANE PROTEIN ANALYSIS SYSTEMS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	39
<u>PROTEIN INTERACTION MONITORING SYSTEMS—REAGENTS</u>	39
<u>TABLE 15 GLOBAL PROTEIN INTERACTION MONITORING SYSTEMS REAGENTS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	40
<u>PROTEIN FRACTIONATION SYSTEMS</u>	40
<u>TABLE 16 GLOBAL PROTEIN FRACTIONATION SYSTEM MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	40
<u>SPR SYSTEMS</u>	41
<u>TABLE 17 GLOBAL SPR SYSTEM MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	41
<u>2-DE MARKET</u>	42
<u>TABLE 18 GLOBAL 2-DE MARKET BY PRODUCT, THROUGH 2014 (\$ MILLIONS)</u>	42
<u>TABLE 19 GLOBAL 2-DE MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	43
<u>MARKET DRIVERS</u>	43

<u>Enhanced Features of This System Lead to Higher Throughput</u>	43
<u>Collection of Substantial Amount of Information through Image Analysis and Data Mining Solutions</u>	43
<u>Investments by Researchers Leading To the Growth of This System</u>	44
<u>This System Consumes Time and is Labor Intensive</u>	44
<u>RECENT DEVELOPMENTS</u>	44
<u>2-DGE SYSTEMS</u>	44
<u>TABLE 20 GLOBAL 2-DGE SYSTEMS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	44
<u>Market Drivers</u>	45
<u>Growth of 2-DGE Market Ignites the Growth for 2-DGE Systems</u>	45
<u>Use of 2-DGE in Medical Applications Escalating Demand for Proteomics Systems:</u>	45
<u>2-DE Systems Complement Other Techniques, Which Adds to Their Application Portfolio:</u>	45
<u>Difficulties Associated with 2-D Gels Restrict 2-DE Systems from Being Used at Full Potential</u>	45
<u>ISOELECTRIC FOCUSING SYSTEMS (FRACTIONATORS, GELS, AND STRIPS)</u>	46
<u>TABLE 21 GLOBAL ISOELECTRIC FOCUSING SYSTEMS (FRACTIONATORS, GELS, AND STRIPS) MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	46
<u>Market Drivers</u>	46
<u>Multi-Metric Composition Leading to High Resolution and Purity of Samples</u>	46
<u>Negligible Interactions with Metal Ions</u>	47
<u>User Friendly</u>	47
<u>Others Factors Driving the Market</u>	47
<u>2-DE CELLS</u>	47
<u>TABLE 22 GLOBAL 2-DE CELLS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	47
<u>2-D PROTEIN MW MARKERS</u>	48
<u>TABLE 23 GLOBAL 2-D PROTEIN MW MARKERS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	48
<u>MF CHIP TECHNOLOGY/MF SYSTEMS</u>	48
<u>TABLE 24 GLOBAL MF CHIP TECHNOLOGY/MF SYSTEM MARKET BY PRODUCT, THROUGH 2014 (\$ MILLIONS)</u>	49
<u>TABLE 25 GLOBAL MF CHIP TECHNOLOGY/MF SYSTEM MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	49
<u>MARKET DRIVERS</u>	49

<u>A Tool for Analyzing the Drug’s Effectiveness, Pharmacological Profiling, and Toxicity Testing</u>	50
<u>Significant Contribution to the Field of Diagnosis and Treatment</u>	50
<u>Helpful In the Detection of Various Non-Communicable Diseases</u>	50
<u>A Significant Role in the Field of Quality Control</u>	50
<u>Minimum Wastage, Low Reagents Costs, and Less Requirement of the Sample Volume for Diagnostics</u>	50
<u>Others</u>	51
<u>MARKET INHIBITORS</u>	51
<u>LOC is a Novel Technology that Requires Further Refinement</u>	51
<u>Precision Engineering Still Remain Comparatively Sophisticated</u>	51
<u>TOP PLAYERS</u>	52
<u>TABLE 26 RECENT DEVELOPMENTS</u>	52
<u>MF CHIPS AND CHIPS-BASED IMMUNOASSAYS</u>	52
<u>TABLE 27 GLOBAL MF CHIPS AND CHIP-BASED IMMUNOASSAYS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	53
<u>MARKET DRIVERS</u>	53
<u>Cost-Effective Complex Analysis System Can Be Developed on a MF Chip</u>	53
<u>MF Chip Acts as an Essential Tool for MS</u>	53
<u>Complete Automation in a Single Device Leads to Reduction in Accidental Loss of Reagents</u>	54
<u>Microchips Enable Greater Speed and Higher Quality of Output</u>	54
<u>The Minimal Requirement of Samples Results in Cost Reduction</u>	54
<u>MF Chip Technology Unable to Mix Fluids on the Chips in an Effective Manner, Making Them Less Favorable for Analysis of Complex Fluids</u>	54
<u>HTS</u>	54
<u>TABLE 28 GLOBAL HTS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	55
<u>MARKET DRIVERS</u>	55
<u>A Tool for Speedy Accomplishment of Biochemical, Genetic, or Pharmacological Tests</u>	55
<u>Demand in Academia</u>	56
<u>The Combination of HTS and uHTS Has a Lot of Advantages</u>	56
<u>HTS Increases Cost-Effectiveness and Productivity</u>	56

<u>Others</u>	56
<u>MICROSPHERE ANALYSIS</u>	57
<u>TABLE 29 GLOBAL MICROSPHERE ANALYSIS MARKET BY</u> <u>PRODUCT, THROUGH 2014 (\$ MILLIONS)</u>	57
<u>TABLE 30 GLOBAL MICROSPHERE ANALYSIS MARKET BY</u> <u>GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	57
<u>ASSAY REAGENTS (MICROSPHERE)</u>	58
<u>TABLE 31 GLOBAL FLUORESCENT MICROSPHERE ASSAY AND</u> <u>REAGENT MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$</u> <u>THOUSANDS)</u>	58
<u>MULTIPLEX ASSAY SYSTEM/FLUORESCENCE</u> <u>MULTIPLEX ARRAYS</u>	58
<u>TABLE 32 GLOBAL MULTIPLEX ASSAY SYSTEMS/FLUORESCENCE</u> <u>MULTIPLEX ARRAYS MARKET BY GEOGRAPHIC REGION,</u> <u>THROUGH 2014 (\$ THOUSANDS)</u>	59
<u>MICROSPHERES AND ASSAY KITS</u>	59
<u>TABLE 33 GLOBAL MICROSPHERES AND ASSAY KITS MARKET BY</u> <u>GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	60
<u>MS</u>	60
<u>TABLE 34 GLOBAL MS MARKET BY PRODUCT, THROUGH 2014 (\$</u> <u>MILLIONS)</u>	60
<u>TABLE 35 GLOBAL MS MARKET BY GEOGRAPHIC REGION,</u> <u>THROUGH 2014 (\$ MILLIONS)</u>	61
<u>MARKET DRIVERS</u>	61
<u>Simple Quantification of Protein Structures Generates</u> <u>the Need for MS</u>	61
<u>MS Acts as a Supporting Element for Growing</u> <u>Technologies</u>	61
<u>Gaining Popularity of Hybrid MS Instruments is Boosting</u> <u>the Growth for MS</u>	61
<u>MARKET INHIBITORS</u>	62
<u>MS Fails to Analyze Small Quantities of Proteins</u>	62
<u>Manual Interruption Necessary, Increasing the Error</u> <u>Rate</u>	62
<u>TOP PLAYERS</u>	62
<u>TABLE 36 RECENT DEVELOPMENTS</u>	62
<u>TABLE 36 (CONTINUED)</u>	63
<u>IONIZATION SOURCES</u>	63
<u>TABLE 37 GLOBAL IONIZATION SOURCES MARKET BY PRODUCT,</u> <u>THROUGH 2014 (\$ MILLIONS)</u>	64
<u>TABLE 38 GLOBAL IONIZATION SOURCES MARKET BY</u> <u>GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	64
<u>MALDI</u>	64

<u>TABLE 39 GLOBAL MALDI MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	65
<u>ESI</u>	65
<u>TABLE 40 GLOBAL ESI MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	65
<u>Atmospheric Pressure Chemical Ionization (APCI)</u>	66
<u>TABLE 41 GLOBAL APCI MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	66
<u>MASS ANALYZERS</u>	66
<u>TABLE 42 GLOBAL MASS ANALYZERS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	67
<u>OTHERS</u>	67
<u>TABLE 43 GLOBAL OTHER EQUIPMENT MARKET BY PRODUCT, THROUGH 2014 (\$ MILLIONS)</u>	67
<u>TABLE 44 GLOBAL OTHER EQUIPMENT MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	68
<u>REAGENTS AND ANTIBODIES</u>	68
<u>TABLE 45 GLOBAL REAGENT AND ANTIBODIES MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	68
<u>AUTOMATED LIQUID HANDLING WORKSTATIONS</u>	69
<u>TABLE 46 GLOBAL AUTOMATED LIQUID HANDLING WORKSTATIONS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	69
<u>SPOT PICKERS</u>	69
<u>TABLE 47 GLOBAL SPOT PICKERS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	70
<u>TOP PLAYERS</u>	70
<u>RECENT DEVELOPMENTS</u>	70
<u>Agreements and Collaborations (December 8, 2008)</u>	70
<u>CHROMATOGRAPHY SYSTEMS</u>	71
<u>TABLE 48 GLOBAL CHROMATOGRAPHY SYSTEMS MARKET BY PRODUCT, THROUGH 2014 (\$ MILLIONS)</u>	71
<u>TABLE 49 GLOBAL CHROMATOGRAPHY SYSTEMS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	72
<u>MARKET DRIVERS</u>	72
<u>LC/MS SYSTEMS</u>	73
<u>TABLE 50 GLOBAL LC/MS SYSTEMS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	73
<u>TOP PLAYERS</u>	74
<u>TABLE 51 RECENT DEVELOPMENTS</u>	74
<u>HPLC SYSTEMS</u>	74
<u>TABLE 52 GLOBAL HPLC SYSTEMS MARKET BY PRODUCT, THROUGH 2014 (\$ MILLIONS)</u>	75

<u>TABLE 53 GLOBAL HPLC SYSTEMS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	75
<u>ION CHROMATOGRAPHY SYSTEMS</u>	76
<u>Market Drivers</u>	76
<u>Reduces the Analysis Time Leading to Higher Efficiency</u>	76
<u>Higher Sensitivity Ensuring Higher Accuracy Levels</u>	76
<u>Simultaneous Detection of Numerous Samples</u>	76
<u>TABLE 54 GLOBAL ION CHROMATOGRAPHY SYSTEMS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	76
<u>NANOSCALE HPLC SYSTEMS</u>	77
<u>TABLE 55 GLOBAL NANOSCALE HPLC SYSTEMS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	77
<u>GC/MS SYSTEMS</u>	77
<u>TABLE 56 GLOBAL GC/MS SYSTEMS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	78
<u>TOP PLAYERS</u>	78
<u>TABLE 57 NEW PRODUCT DEVELOPMENT</u>	79
<u>COMPLETE PROTEIN PURIFICATION SYSTEMS</u>	79
<u>Market Drivers</u>	79
<u>User Friendly</u>	79
<u>Speedy and Suitable Start to All Purification</u>	79
<u>TABLE 58 GLOBAL COMPLETE PROTEIN PURIFICATION SYSTEMS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	80
<u>GEL PERMEATION CHROMATOGRPAHY SYSTEMS</u>	80
<u>TABLE 59 GLOBAL GEL PERMEATION CHROMATOGRAPHY SYSTEMS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	81
<u>COMPLETE LC-NMR-MSN SYSTEMS</u>	81
<u>TABLE 60 GLOBAL COMPLETE LC-NMR-MSN SYSTEMS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	81
<u>Market Drivers</u>	82
<u>CHROMATOGRAPHY SYSTEM ACCESSORIES</u>	82
<u>Market Drivers</u>	82
<u>TABLE 61 GLOBAL CHROMATOGRAPHY SYSTEM ACCESSORIES MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	83
<u>SUPERCRITICAL FLUID CHROMATOGRAPHY AND EXTRACTION SYSTEMS</u>	83
<u>TABLE 62 GLOBAL SUPERCRITICAL FLUID CHROMATOGRAPHY AND EXTRACTION MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	84

<u>CAPILLARY LC SYSTEMS</u>	84
<u>TABLE 63 GLOBAL CAPILLARY LC SYSTEMS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	85
<u>AUTOMATED SPE SYSTEMS</u>	85
<u>TABLE 64 GLOBAL AUTOMATED SPE SYSTEMS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	86
<u>Market Growth</u>	86
<u>These Systems Are Good Platforms for Direct Injections of Plasma, Urine, Vegetable Oils, and Surface Water</u>	86
<u>These Systems Automate Cleaning of Sample and Analyte Enrichment</u>	86
<u>These Systems Eliminate Traditional Manual Sample Steps, Making Them Inexpensive Platforms for Speedy Analysis</u>	86
<u>Other Driving Factors</u>	87
<u>Need for Human Intervention Absorbs Enormous Time</u>	87
<u>CHAPTER FIVE: PROTEOMICS TECHNOLOGY MARKET</u>	88
<u>TABLE 65 GLOBAL PROTEOMICS TECHNOLOGY MARKET BY PRODUCT, THROUGH 2014 (\$ MILLIONS)</u>	88
<u>TABLE 66 GLOBAL PROTEOMICS TECHNOLOGY MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS) BASED ON TYPES</u>	89
<u>TABLE 67 GLOBAL PROTEOMICS TECHNOLOGY MARKET BASED ON PRODUCT TYPES, THROUGH 2014 (\$ MILLIONS)</u>	89
<u>TABLE 68 GLOBAL PROTEOMICS TECHNOLOGY MARKET BASED ON TYPES BY GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	89
<u>STRUCTURAL PROTEOMICS</u>	89
<u>TABLE 69 GLOBAL STRUCTURAL PROTEOMICS MARKET BY PRODUCT, THROUGH 2014 (\$ MILLIONS)</u>	90
<u>TABLE 70 GLOBAL STRUCTURAL PROTEOMICS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	90
<u>X-Ray Crystallography</u>	90
<u>TABLE 71 GLOBAL X-RAY CRYSTALLOGRAPHY MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	91
<u>Market Drivers</u>	92
<u>Application in Drug Discovery Boosting Market Growth</u>	92
<u>Simple and Low Cost Solution Increasing Adoption Rates</u>	92
<u>Aids Effective Analysis in Short Span of Time</u>	92
<u>Top Players</u>	92

<u>TABLE 72 ACQUISITIONS/MERGERS/JOINT VENTURES</u>	93
<u>Recent Developments</u>	93
<u>March 27, 2008 Agreements and Collaborations</u>	93
<u>NMR Spectroscopy</u>	93
<u>TABLE 73 GLOBAL NMR SPECTROSCOPY MARKET BY</u> <u>GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	94
<u>EXPRESSIONAL PROTEOMICS</u>	95
<u>TABLE 74 GLOBAL EXPRESSIONAL PROTEOMICS MARKET BY</u> <u>PRODUCT, THROUGH 2014 (\$ MILLIONS)</u>	95
<u>TABLE 75 GLOBAL EXPRESSIONAL PROTEOMICS MARKET BY</u> <u>GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	95
<u>Serial Analysis of Gene Expression (SAGE)</u>	96
<u>TABLE 76 GLOBAL SAGE MARKET BY GEOGRAPHIC REGION,</u> <u>THROUGH 2014 (\$ THOUSANDS)</u>	96
<u>DNA Chips</u>	97
<u>TABLE 77 GLOBAL DNA CHIPS MARKET BY GEOGRAPHIC REGION,</u> <u>THROUGH 2014 (\$ THOUSANDS)</u>	97
<u>Top Players</u>	97
<u>TABLE 78 RECENT DEVELOPMENT</u>	98
<u>BASED ON PROCESS</u>	98
<u>TABLE 79 GLOBAL PROTEOMICS TECHNOLOGY BASED ON</u> <u>PROCESS MARKET BY PRODUCT, THROUGH 2014 (\$ MILLIONS)</u>	98
<u>TABLE 80 GLOBAL PROTEOMICS TECHNOLOGY BASED ON</u> <u>PROCESS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$</u> <u>MILLIONS)</u>	99
<u>PROTEIN, IDENTIFICATION, SEQUENCING, AND</u> <u>CHARACTERIZATION</u>	99
<u>TABLE 81 GLOBAL PROTEIN, IDENTIFICATION, SEQUENCING,</u> <u>AND CHARACTERIZATION MARKET BY PRODUCT, THROUGH</u> <u>2014 (\$ MILLIONS)</u>	99
<u>TABLE 82 GLOBAL PROTEIN, IDENTIFICATION, SEQUENCING,</u> <u>AND CHARACTERIZATION MARKET BY GEOGRAPHIC REGION,</u> <u>THROUGH 2014 (\$ MILLIONS)</u>	100
<u>Top Players</u>	100
<u>TABLE 83 RECENT DEVELOPMENT</u>	100
<u>TABLE 83 (CONTINUED)</u>	101
<u>TANDEM MASS SPETROMETRY (TD/MS)</u>	101
<u>TABLE 84 GLOBAL TANDEM MS MARKET BY GEOGRAPHIC</u> <u>REGION, THROUGH 2014 (\$ THOUSANDS)</u>	102
<u>CIRCULAR DICHROISM (CD)</u>	102
<u>TABLE 85 GLOBAL CD MARKET BY GEOGRAPHIC REGION,</u> <u>THROUGH 2014 (\$ THOUSANDS)</u>	102
<u>SAMPLE PREPARATION</u>	103

<u>TABLE 86 GLOBAL SAMPLE PREPARATION MARKET BY PRODUCT, THROUGH 2014 (\$ THOUSANDS)</u>	103
<u>TABLE 87 GLOBAL SAMPLE PREPARATION MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	103
<u>Top Players</u>	104
<u>Recent Developments</u>	104
<u>April 23, 2009: New Product Launch</u>	104
<u>CE SYSTEMS</u>	104
<u>TABLE 88 GLOBAL CE SYSTEMS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	104
<u>PRESSURE CYCLING TECHNOLOGY</u>	105
<u>TABLE 89 GLOBAL PRESSURE CYCLING TECHNOLOGY MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	105
<u>CHAPTER SIX: PROTEOMICS SERVICES MARKET</u>	106
<u>TABLE 90 GLOBAL PROTEOMICS SERVICES MARKET BY PRODUCT, THROUGH 2014 (\$ MILLIONS)</u>	106
<u>TABLE 91 GLOBAL PROTEOMICS SERVICES MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	106
<u>ANALYTICAL LABORATORY SERVICES</u>	107
<u>TABLE 92 GLOBAL ANALYTICAL LABORATORY SERVICES MARKET BY PRODUCT, THROUGH 2014 (\$ MILLIONS)</u>	107
<u>TABLE 93 GLOBAL ANALYTICAL LABORATORY SERVICES MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	107
<u>QUALITY CONTROL OF PROTEINS AND PROTEIN IDENTIFICATION</u>	108
<u>PROTEIN SEPARATION SERVICES</u>	108
<u>PROTEIN SEQUENCING SERVICE</u>	109
<u>DATA ANALYSIS AND MAINTENANCE</u>	109
<u>TABLE 94 GLOBAL DATA ANALYSIS AND MAINTENANCE MARKET BY PRODUCT, THROUGH 2014 (\$ THOUSANDS)</u>	110
<u>TABLE 95 GLOBAL DATA ANALYSIS AND MAINTENANCE MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	110
<u>TABLE 96 GLOBAL BIOINFORMATICS AND COMPUTATIONAL PROTEOMICS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	111
<u>Top Players</u>	111
<u>TABLE 97 RECENT DEVELOPMENTS</u>	111
<u>TABLE 97 (CONTINUED)</u>	112
<u>DOCUMENT ANALYSIS AND DATA MINING SERVICES</u>	112
<u>TABLE 98 GLOBAL DOCUMENT ANALYSIS AND DATA MINING SERVICES MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	112
<u>Top Players</u>	113
<u>Recent Developments</u>	113

<u>April 7, 2009 Agreements and Collaborations</u>	113
CHAPTER SEVEN: PROTEOMICS DATABASE AND SOFTWARE	
<u>MARKET</u>	114
<u>TABLE 99 GLOBAL PROTEOMICS DATABASE AND SOFTWARE</u>	
<u>MARKET BY PRODUCT, THROUGH 2014 (\$ MILLIONS)</u>	114
<u>TABLE 100 GLOBAL PROTEOMICS DATABASE AND SOFTWARE</u>	
<u>MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$</u>	
<u>MILLIONS)</u>	115
<u>PROTEOMICS SOFTWARE</u>	115
<u>OPPORTUNITIES</u>	115
<u>Proteomics Software Vendors' Interest is Opening New</u>	
<u>Opportunities for This Market</u>	116
<u>Association with Academics Labs for Progression In</u>	
<u>Proteomics Software Ensures Growth In Near Future</u>	116
<u>Collaborations of Proteomics Software Providers with</u>	
<u>Institutes Open Up New Opportunities</u>	116
<u>TABLE 101 GLOBAL PROTEOMICS SOFTWARE MARKET BY</u>	
<u>PRODUCT, THROUGH 2014 (\$ MILLIONS)</u>	116
<u>TABLE 101 (CONTINUED)</u>	117
<u>TABLE 102 GLOBAL PROTEOMICS SOFTWARE MARKET BY</u>	
<u>GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	117
<u>MARKET DRIVERS</u>	117
<u>Proteomics Software Aids in Dynamic Analysis with</u>	
<u>Higher Throughput</u>	117
<u>Identifying Low Abundance Proteins</u>	118
<u>Detecting Post-Translational Modifications</u>	118
<u>Use of Proteomics Software Leads to Better Quantitation</u>	
<u>of Proteomics Data</u>	118
<u>Implementation and Integration of This Software Need</u>	
<u>the Attention of Experienced Personnel, which</u>	
<u>Demands Time and Resources</u>	118
<u>MS SOFTWARE</u>	118
<u>TABLE 103 GLOBAL MS SOFTWARE MARKET BY GEOGRAPHIC</u>	
<u>REGION, THROUGH 2014 (\$ THOUSANDS)</u>	119
<u>Top Players</u>	119
<u>PROTEIN VALIDATION AND QUANTIFICATION</u>	
<u>TECHNOLOGIES</u>	120
<u>TABLE 104 GLOBAL PROTEIN VALIDATION AND QUANTIFICATION</u>	
<u>TECHNOLOGIES MARKET BY GEOGRAPHIC REGION, THROUGH</u>	
<u>2014 (\$ THOUSANDS)</u>	121
<u>MICROARRAY SOFTWARE</u>	121
<u>TABLE 105 GLOBAL MICROARRAY SOFTWARE MARKET BY</u>	
<u>GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	121
<u>MF CHIP INSTRUMENT SOFTWARE</u>	122

<u>TABLE 106 GLOBAL MF CHIP INSTRUMENT SOFTWARE MARKET</u>	
<u>BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	122
<u>PROTEIN STRUCTURAL ANALYSIS</u>	122
<u>TABLE 107 GLOBAL PROTEIN STRUCTURAL ANALYSIS MARKET</u>	
<u>BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	123
<u>TANDEM MASS SPEC PROTEOMICS DATA VIEWER</u>	123
<u>TABLE 108 GLOBAL TANDEM MASS SPEC PROTEOMICS DATA</u>	
<u>VIEWER MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$</u>	
<u>THOUSANDS)</u>	123
<u>PRIMER ANALYSIS</u>	124
<u>TABLE 109 GLOBAL PRIMER ANALYSIS MARKET BY GEOGRAPHIC</u>	
<u>REGION, THROUGH 2014 (\$ THOUSANDS)</u>	124
<u>PROTEIN AND PEPTIDE IDENTIFICATION SOFTWARE</u>	125
<u>TABLE 110 GLOBAL PROTEIN AND PEPTIDE IDENTIFICATION</u>	
<u>SOFTWARE MARKET BY GEOGRAPHIC REGION, THROUGH 2014</u>	
<u>(\$ THOUSANDS)</u>	125
<u>PROTEIN SEQUENCE AND PLASMID DRAWING ANALYSIS</u>	126
<u>TABLE 111 GLOBAL PROTEIN SEQUENCE AND PLASMID DRAWING</u>	
<u>ANALYSIS MARKET BY GEOGRAPHIC REGION, THROUGH 2014</u>	
<u>(\$ THOUSANDS)</u>	127
<u>GEL IMAGE ANALYSIS SOFTWARE</u>	127
<u>TABLE 112 GLOBAL GEL IMAGE ANALYSIS SOFTWARE MARKET</u>	
<u>BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	128
<u>PROTEOMICS DATABASES</u>	128
<u>TABLE 113 GLOBAL PROTEOMICS DATABASES MARKET BY</u>	
<u>PRODUCT, THROUGH 2014 (\$ MILLIONS)</u>	128
<u>TABLE 114 GLOBAL PROTEOMICS DATABASES MARKET BY</u>	
<u>GEOGRAPHIC REGION, THROUGH 2014 (\$ MILLIONS)</u>	129
<u>PROTEIN-PROTEIN INTERACTION</u>	129
<u>TABLE 115 GLOBAL PROTEIN-PROTEIN INTERACTION MARKET</u>	
<u>BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	130
<u>Top Players</u>	130
<u>TABLE 116 RECENT DEVELOPMENTS</u>	130
<u>TABLE 116 (CONTINUED)</u>	131
<u>PROTEIN SEQUENCE DATABASE</u>	131
<u>TABLE 117 GLOBAL PROTEIN SEQUENCE DATABASE MARKET BY</u>	
<u>GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	132
<u>Top Players</u>	132
<u>Recent Development</u>	132
<u>April 3, 2009: New Technology Launch</u>	132
<u>PROTEINS AND GENES</u>	132
<u>TABLE 118 GLOBAL PROTEINS AND GENES MARKET BY</u>	
<u>GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	133
<u>GENE ONTOLOGY</u>	133

<u>TABLE 119 GLOBAL GENE ONTOLOGY MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	133
<u>3-D STRUCTURES OF PROTEIN</u>	134
<u>TABLE 120 GLOBAL 3-D STRUCTURES OF PROTEIN MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	134
<u>TABLE 121 RECENT DEVELOPMENT</u>	134
<u>TABLE 121 (CONTINUED)</u>	135
<u>GENERAL INFORMATION DATABASES</u>	135
<u>TABLE 122 GLOBAL GENERAL INFORMATION DATABASE MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	135
<u>Top Players</u>	136
<u>TABLE 123 RECENT DEVELOPMENTS</u>	136
<u>GENERAL LABORATORY SOFTWARE PROGRAMS</u>	136
<u>TABLE 124 GLOBAL GENERAL LABORATORY SOFTWARE PROGRAMS MARKET BY PRODUCT, THROUGH 2014 (\$ THOUSANDS)</u>	136
<u>TABLE 125 GLOBAL GENERAL LABORATORY SOFTWARE PROGRAMS MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$THOUSANDS)</u>	137
<u>DESKTOP DATABASE, MANAGEMENT PROGRAMS, AND OPERATING SYSTEMS</u>	137
<u>TABLE 126 GLOBAL DESKTOP DATABASE, MANAGEMENT PROGRAMS, AND OPERATING SYSTEMS MARKET BY REGION, THROUGH 2014 (\$ THOUSANDS)</u>	137
<u>IMAGE PROCESSING AND ANALYSIS SOFTWARE PROGRAM</u>	138
<u>TABLE 127 GLOBAL IMAGE PROCESSING AND ANALYSIS SOFTWARE PROGRAM MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	138
<u>GRAPHING SOFTWARE PROGRAM</u>	139
<u>TABLE 128 GLOBAL GRAPHING SOFTWARE PROGRAM MARKET BY GEOGRAPHIC REGION, THROUGH 2014 (\$ THOUSANDS)</u>	139
<u>CHAPTER EIGHT: PROTEOMICS APPLICATIONS MARKET</u>	140
<u>TABLE 129 GLOBAL PROTEOMICS APPLICATIONS MARKET THROUGH 2014 (\$ MILLIONS)</u>	140
<u>DRUG DISCOVERY</u>	140
<u>TABLE 130 GLOBAL DRUG DISCOVERY APPLICATIONS MARKET BY PRODUCT, THROUGH 2014 (\$ MILLIONS)</u>	141
<u>MARKET DRIVERS</u>	141
<u>Shortcomings of Gene-Based Drug Discovery Igniting Adoption of Proteomics</u>	141
<u>Benefits Derived through Protein-Based Drug Design and Discovery Are Expected to Be the Key Factor</u>	

<u>Contributing to Growth of Proteomics in the Drug Discovery Market</u>	141
<u>Need to Understand the Dynamics of Protein Element</u>	142
<u>Continuous Search for Alternative and Efficient Methods to Deliver Enhanced Drugs</u>	142
<u>Increasing R&D Investments from Pharmaceutical and Biotech Companies</u>	142
<u>Potential Market in Growing Economies</u>	143
<u>Emerging Approaches and Innovations in Proteomics Improving Decision Support Tools</u>	143
<u>MARKET INHIBITORS</u>	143
<u>Lack of Enhanced Computational Tools Limiting the Scope of Effective Analysis</u>	143
<u>Limited Drug Alternatives Restricting the Scope of Proteomics</u>	144
<u>Prevailing Skepticism on the Feasibility of Manufacturing Protein-Based Drugs on Larger Levels, Impairing the Adoption of Proteomics</u>	144
<u>Limited Utility of Proteomics Due to Complexity Involved and Lack of Adequately Trained Manpower</u>	144
<u>DRUG DEVELOPMENT</u>	144
<u>DRUG TARGET VALIDATION</u>	145
<u>MARKET DRIVERS</u>	145
<u>Advantages of Target-Based Drug Discovery Leading to Profuse Investment from Drug Development Companies</u>	145
<u>Application of Proteomics Enabling Process Efficiency</u>	145
<u>Limited Knowledge on Protein Dynamics Limits High- Level Application</u>	146
<u>ADME-TOX Profiling</u>	146
<u>Target Identification</u>	146
<u>DIAGNOSIS MARKET</u>	147
<u>TABLE 131 GLOBAL DIAGNOSIS APPLICATIONS MARKET BY PRODUCT, THROUGH 2014 (\$ MILLIONS)</u>	147
<u>MARKET DRIVERS</u>	147
<u>Better Analysis of Kidney Diseases by Proteomics Supports Its Growth in Clinical Application</u>	147
<u>Determination of Protein Expression for Normal and Diseased States Spurs the Use of Proteomics as a Diagnostic Tool</u>	148
<u>Continuous Advancements in the Proteomics Technologies</u>	148
<u>MARKET INHIBITORS</u>	148

<u>Complexity of Proteomes Acts as a Barrier for the Use of Proteomics in Diagnostic Applications</u>	148
<u>Inability of Proteomic Diagnostic Tools to Give Accurate and Reproducible Results Slows Down Its Growth</u>	148
<u>NEW BIOMARKER</u>	148
<u>Market Drivers</u>	149
<u>High-Quality Proteomics Equipment Have Effectively Helped in Biomarker Detection in Complex Mixtures</u>	149
<u>Biomarker Detection for Excessive Alcohol Consumption is becoming a Popular Area for Proteomics</u>	149
<u>Market Inhibitors</u>	149
<u>Inability to Detect Some Important Biomarkers by Proteomics Tools Restricts Its Adoption in New Biomarker Application</u>	149
<u>A High Cost and Time Requirement for Biomarker Detection by Proteomics Experiments Confines the Use of Proteomics</u>	150
<u>PROTEIN-PROTEIN INTERACTION</u>	150
<u>PROTEIN QUANTIFICATION</u>	150
<u>PROTEIN PURIFICATION</u>	150
<u>PROTEIN IDENTIFICATION</u>	151
<u>GLOBAL THERAPY AND OTHERS MARKET</u>	151
<u>TABLE 132 GLOBAL THERAPY AND OTHERS APPLICATIONS MARKET BY PRODUCT, THROUGH 2014 (\$ MILLIONS)</u>	151
<u>THERAPY</u>	152
<u>Market Drivers</u>	152
<u>Proteomics Application in Anesthesiology is Evolving as a New Area in Therapy</u>	152
<u>Proteomics Is Gaining Popularity as a Cancer Diagnostic Tool</u>	152
<u>Market Inhibitors</u>	152
<u>Proteomics-Based Therapy Market Still Not an Established Segment</u>	152
<u>Cost of Therapy Limiting the Scope</u>	152
<u>FOOD AND NUTRITION</u>	153
<u>HOMELAND SECURITY</u>	153
<u>CHAPTER NINE: GEOGRAPHIC ANALYSIS OF PROTEOMICS MARKET</u>	154
<u>NORTH AMERICA</u>	154
<u>TABLE 133 NORTH AMERICAN PROTEOMICS MARKET BY SEGMENT, THROUGH 2014 (\$ MILLIONS)</u>	155
<u>EUROPE</u>	155

<u>TABLE 134 EUROPEAN PROTEOMICS MARKET BY SEGMENT, THROUGH 2014 (\$ MILLIONS)</u>	156
<u>ASIA</u>	156
<u>TABLE 135 ASIAN PROTEOMICS MARKET BY SEGMENT, THROUGH 2014 (\$ MILLIONS)</u>	157
<u>ROW</u>	157
<u>TABLE 136 ROW PROTEOMICS MARKET BY SEGMENT, THROUGH 2014 (\$ MILLIONS)</u>	158
<u>CHAPTER TEN: COMPANY PROFILES</u>	159
<u>20/20 GENESYSTEMS, INC.</u>	159
<u>TABLE 137 20/20 GENESYSTEMS, INC. PRODUCT PORTFOLIO</u>	159
<u>STRATEGY</u>	159
<u>ACTIVX BIOSCIENCES, INC.</u>	160
<u>TABLE 138 ACTIVX BIOSCIENCES, INC. PRODUCT PORTFOLIO</u>	160
<u>STRATEGY</u>	160
<u>AGILENT TECHNOLOGIES</u>	161
<u>TABLE 139 AGILENT TECHNOLOGIES PRODUCT PORTFOLIO</u>	161
<u>STRATEGY</u>	161
<u>TABLE 140 AGILENT TECHNOLOGIES STRATEGY</u>	162
<u>AMGEN, INC.</u>	162
<u>TABLE 141 AMGEN, INC. PRODUCT PORTFOLIO</u>	162
<u>TABLE 141 (CONTINUED)</u>	163
<u>STRATEGY</u>	163
<u>ANASPEC, INC.</u>	163
<u>TABLE 142 ANASPEC, INC. PRODUCT PORTFOLIO</u>	164
<u>STRATEGY</u>	165
<u>TABLE 143 ANASPEC, INC. STRATEGY</u>	165
<u>APPLIED BIOSYSTEMS INC.</u>	166
<u>TABLE 144 APPLIED BIOSYSTEMS INC. PRODUCT PORTFOLIO</u>	166
<u>STRATEGY</u>	167
<u>TABLE 145 APPLIED BIOSYSTEMS INC. STRATEGY</u>	167
<u>ASTERAND, PLC</u>	167
<u>TABLE 146 ASTERAND, PLC PRODUCT PORTFOLIO</u>	168
<u>STRATEGY</u>	168
<u>TABLE 147 ASTERAND, PLC STRATEGY</u>	168
<u>BAYER TECHNOLOGY SERVICES</u>	169
<u>TABLE 148 BAYER TECHNOLOGY SERVICES PRODUCT PORTFOLIO</u>	169
<u>STRATEGY</u>	169
<u>BECKMAN COULTER, INC.</u>	170
<u>TABLE 149 BECKMAN COULTER, INC. PRODUCT PORTFOLIO</u>	170
<u>STRATEGY</u>	170
<u>BECTON, DICKINSON, AND COMPANY (BD)</u>	171
<u>TABLE 150 BD PRODUCT PORTFOLIO</u>	171

<u>STRATEGY</u>	171
<u>BG MEDICINE</u>	171
<u>TABLE 151 BG MEDICINE PRODUCT PORTFOLIO</u>	172
<u>STRATEGY</u>	172
<u>TABLE 152 BG MEDICINE STRATEGY</u>	172
<u>BIACORE INTERNATIONAL AB</u>	173
<u>TABLE 153 BIACORE INTERNATIONAL AB PRODUCT PORTFOLIO</u>	173
<u>BIOCARTA, INC.</u>	174
<u>TABLE 154 BIOCARTA, INC. PRODUCT PORTFOLIO</u>	174
<u>BIO-RAD LABORATORIES, INC.</u>	175
<u>TABLE 155 BIO-RAD LABORATORIES, INC. PRODUCT PORTFOLIO</u>	175
<u>TABLE 155 (CONTINUED)</u>	176
<u>STRATEGY</u>	176
<u>TABLE 156 BIO-RAD LABORATORIES, INC. STRATEGY</u>	176
<u>BRUKER BIOSCIENCES CORP.</u>	177
<u>TABLE 157 BRUKER BIOSCIENCES CORPORATION PRODUCT</u>	
<u>PORTFOLIO</u>	177
<u>STRATEGY</u>	177
<u>CALIPER LIFE SCIENCES INC.</u>	178
<u>TABLE 158 CALIPER LIFE SCIENCES INC. PRODUCT PORTFOLIO</u>	178
<u>STRATEGY</u>	178
<u>TABLE 159 CALIPER LIFE SCIENCES, INC. STRATEGY</u>	179
<u>CAPRION PROTEOMICS, INC.</u>	179
<u>TABLE 160 CAPRION PROTEOMICS, INC. PRODUCT PORTFOLIO</u>	179
<u>STRATEGY</u>	180
<u>CELLZOME AG</u>	180
<u>TABLE 161 CELLZOME AG PRODUCT PORTFOLIO</u>	180
<u>STRATEGY</u>	180
<u>COMMONWEALTH BIOTECHNOLOGIES, INC.</u>	181
<u>TABLE 162 COMMONWEALTH BIOTECHNOLOGIES, INC. PRODUCT</u>	
<u>PORTFOLIO</u>	181
<u>STRATEGY</u>	181
<u>DIGILAB BIOVISION GMBH</u>	182
<u>TABLE 163 DIGILAB BIOVISION GMBH PRODUCT PORTFOLIO</u>	182
<u>STRATEGY</u>	182
<u>TABLE 164 DIGILAB BIOVISION GMBH STRATEGY</u>	183
<u>DIONEX CORP.</u>	183
<u>TABLE 165 DIONEX CORP. PRODUCT PORTFOLIO</u>	183
<u>TABLE 165 (CONTINUED)</u>	184
<u>STRATEGY</u>	184
<u>TABLE 166 DIONEX CORP. STRATEGY</u>	184
<u>DUALSYSTEMS BIOTECH AG</u>	185
<u>TABLE 167 DUALSYSTEMS BIOTECH AG PRODUCT PORTFOLIO</u>	185
<u>STRATEGY</u>	186

<u>DYAX CORP.</u>	186
<u>TABLE 168 DYAX CORP. PRODUCT PORTFOLIO</u>	186
<u>STRATEGY</u>	186
<u>EPROGEN</u>	187
<u>TABLE 169 EPROGEN PRODUCT PORTFOLIO</u>	187
<u>STRATEGY</u>	187
<u>ERAGEN BIOSCIENCES</u>	187
<u>TABLE 170 ERAGEN BIOSCIENCES PRODUCT PORTFOLIO</u>	188
<u>STRATEGY</u>	188
<u>EUROGENTEC</u>	188
<u>TABLE 171 EUROGENTEC PRODUCT PORTFOLIO</u>	189
<u>STRATEGY</u>	189
<u>GE HEALTHCARE</u>	190
<u>TABLE 172 GE HEALTHCARE PRODUCT PORTFOLIO</u>	190
<u>TABLE 172 (CONTINUED)</u>	191
<u>STRATEGY</u>	191
<u>GENEART GMBH</u>	192
<u>TABLE 173 GENEART GMBH PRODUCT PORTFOLIO</u>	192
<u>STRATEGY</u>	192
<u>GENEDATA AG</u>	192
<u>TABLE 174 GENEDATA AG PRODUCT PORTFOLIO</u>	193
<u>STRATEGY</u>	193
<u>TABLE 175 GENEDATA AG STRATEGY</u>	193
<u>GENENTECH, INC.</u>	194
<u>TABLE 176 GENENTECH INC. PRODUCT PORTFOLIO</u>	194
<u>STRATEGY</u>	194
<u>TABLE 177 GENENTECH INC. STRATEGY</u>	195
<u>INTRINSIC BIOPROBES, INC.</u>	195
<u>TABLE 178 INTRINSIC BIOPROBES, INC. PRODUCT PORTFOLIO</u>	195
<u>STRATEGY</u>	196
<u>LIFESPAN BIOSCIENCES, INC.</u>	196
<u>TABLE 179 LIFESPAN BIOSCIENCES, INC. PRODUCT PORTFOLIO</u>	196
<u>STRATEGY</u>	196
<u>MATRITECH, INC.</u>	197
<u>TABLE 180 MATRITECH, INC. PRODUCT PORTFOLIO</u>	197
<u>STRATEGY</u>	197
<u>MATRIX SCIENCE, LTD.</u>	197
<u>TABLE 181 MATRIX SCIENCE, LTD. PRODUCT PORTFOLIO</u>	198
<u>STRATEGY</u>	198
<u>MDS, INC.</u>	198
<u>TABLE 182 MDS INC. PRODUCT PORTFOLIO</u>	199
<u>STRATEGY</u>	199
<u>MONARCH LIFESCIENCES</u>	199
<u>TABLE 183 MONARCH LIFESCIENCES PRODUCT PORTFOLIO</u>	199

<u>TABLE 183 (CONTINUED)</u>	200
<u>STRATEGY</u>	200
<u>NEXTGEN SCIENCES, LTD.</u>	200
<u>TABLE 184 NEXTGEN SCIENCES, LTD. PRODUCT PORTFOLIO</u>	201
<u>STRATEGY</u>	201
<u>NONLINEAR DYNAMICS, LTD.</u>	202
<u>TABLE 185 NONLINEAR DYNAMICS, LTD. PRODUCT PORTFOLIO</u>	202
<u>STRATEGY</u>	202
<u>TABLE 186 NONLINEAR DYNAMICS, LTD. STRATEGY</u>	203
<u>THERMO SCIENTIFIC OWL SEPARATION SYSTEMS</u>	203
<u>TABLE 187 THERMO SCIENTIFIC OWL SEPARATION SYSTEMS</u> <u>PRODUCT PORTFOLIO</u>	203
<u>STRATEGY</u>	204
<u>PERKINELMER, INC.</u>	204
<u>TABLE 188 PERKINELMER, INC PRODUCT PORTFOLIO</u>	204
<u>TABLE 188 (CONTINUED)</u>	205
<u>STRATEGY</u>	205
<u>TABLE 189 PERKINELMER, INC. STRATEGY</u>	205
<u>PROLEXYS PHARMACEUTICALS, INC.</u>	205
<u>TABLE 190 PROLEXYS PHARMACEUTICALS, INC. PRODUCT</u> <u>PORTFOLIO</u>	206
<u>STRATEGY</u>	206
<u>PROTAGEN AG</u>	206
<u>TABLE 191 PROTAGEN AG PRODUCT PORTFOLIO</u>	207
<u>STRATEGY</u>	207
<u>PROTEA BIOSCIENCES, INC.</u>	207
<u>TABLE 192 PROTEA BIOSCIENCES, INC. (USA) PRODUCT</u> <u>PORTFOLIO</u>	207
<u>STRATEGY</u>	208
<u>TABLE 193 PROTEA BIOSCIENCES, INC. (USA) STRATEGY</u>	208
<u>TYRIAN DIAGNOSTICS</u>	208
<u>TABLE 194 TYRIAN DIAGNOSTICS PRODUCT PORTFOLIO</u>	208
<u>STRATEGY</u>	209
<u>SHIMADZU BIOTECH</u>	209
<u>TABLE 195 SHIMADZU BIOTECH PRODUCT PORTFOLIO</u>	209
<u>TABLE 195 (CONTINUED)</u>	210
<u>STRATEGY</u>	210
<u>SOMALOGIC, INC. (USA)</u>	210
<u>TABLE 196 SOMALOGIC, INC. (USA) PRODUCT PORTFOLIO</u>	211
<u>STRATEGY</u>	211
<u>SYNGENE</u>	211
<u>TABLE 197 SYNGENE PRODUCT PORTFOLIO</u>	212
<u>THERMO FISHER SCIENTIFIC, INC.</u>	212

<u>TABLE 198 THERMO FISHER SCIENTIFIC INC. PRODUCT PORTFOLIO</u>	213
<u>TABLE 198 (CONTINUED)</u>	214
<u>STRATEGY</u>	214
<u>VBC-GENOMICS BIOSCIENCE RESEARCH GMBH (AUSTRIA)</u>	214
<u>TABLE 199 VBC-GENOMICS BIOSCIENCE RESEARCH GMBH (AUSTRIA) PRODUCT PORTFOLIO</u>	215
<u>STRATEGY</u>	215
<u>XENCOR, INC.</u>	215
<u>TABLE 200 XENCOR, INC. PRODUCT PORTFOLIO</u>	215
<u>APPENDIX ONE</u>	216
<u>PROTEOMIC TECHNOLOGY PATENTS FOR THE U.S., EUROPE AND JAPAN</u>	216
<u>TABLE 201 PROTEOMIC TECHNOLOGY PATENTS FOR THE U.S., EUROPE AND JAPAN</u>	216
<u>TABLE 201 (CONTINUED)</u>	217
<u>TABLE 201 (CONTINUED)</u>	218
<u>TABLE 201 (CONTINUED)</u>	219
<u>TABLE 201 (CONTINUED)</u>	220
<u>TABLE 201 (CONTINUED)</u>	221
<u>TABLE 201 (CONTINUED)</u>	222
<u>TABLE 201 (CONTINUED)</u>	223
<u>TABLE 201 (CONTINUED)</u>	224
<u>TABLE 201 (CONTINUED)</u>	225
<u>TABLE 201 (CONTINUED)</u>	226
<u>TABLE 201 (CONTINUED)</u>	227
<u>APPENDIX TWO</u>	228
<u>LIST OF ACRONYMS</u>	228
<u>LIST OF ACRONYMS (CONTINUED)</u>	229
<u>LIST OF ACRONYMS (CONTINUED)</u>	230