

## SUBJECT INDEX TO VOLUME 2

<p>Abiotic stresses .....326</p> <p>Acylation.....290</p> <p>Allosteric ribozyme arrays.....171 for global profiling of proteins.....171</p> <p>Alzheimer's disease .....44 proteins altered in.....45 proteome profiling of brain proteins in .....44</p> <p>Antibody-antigen interactions.....65 bio/anti-biotin IgG interactions as .....66 ferritin/anti-ferritin IgG interactions as .....66 fluorescein/anti-fluorescein IgG interactions as.....65 HSA/anti-HSA IgG interactions as .....66</p> <p>Aptamers .....121,166 for global profiling of proteins.....171</p> <p>Aptamer probes.....36 based on fluorescence anisotropy (FA).....36</p> <p>Artificial neural network (ANN) .....15</p> <p>Atomic force microscopy (AFM) .....55 adhesive force in .....60 capillary force in .....60 contact mode of .....57 elastic force in .....60 electrostatic force in .....60 for force measurements .....56 force-distance curves in.....59 force-modulation mode of.....59 forces in.....59 instrumentation of .....56 principle of operation of .....57 stretching in.....61 tapping mode of.....58 unbinding force in .....60 van Der Waals force in.....59</p> <p>Augmented homology modeling method.....233 application of.....237 evaluation of.....237 protein structure prediction using.....233</p> <p>Avidin-biotin interactions .....65 avidin/biotin derivatives interactions as .....65</p> <p>Bacillus proteome .....109 bioinformatics for.....131 functional/structural analysis of.....109</p> <p>Bacillus species.....122 acid and alkali stresses of.....127 functional modifications of .....130 future of.....138 other stresses of.....128 post-translational modifications of.....130 protein-protein interactions of.....129 proteomic applications in biomarkers/drug discovery from .....134 regulatory network under stresses.....124 secretion network of.....122</p>	<p>structural proteomics of.....130 study of protein functions of .....122 temperature stresses of .....125</p> <p>BALF .....306 removal of reduction of lipid/glycoconjugates/ and related compounds from.....307 removal of salts from.....306 removal/reduction of plasma proteins from .....307 sample preparation methods for 2-DE-based proteomics study of.....306</p> <p>BALF proteomics.....306 advances in .....306</p> <p>Basis of solid-phase extraction.....269</p> <p>Biotic stresses.....328</p> <p>Breast cancer .....15 additive approach in .....23 artificial neural network data mining techniques for 15 data parameterization for.....20 identification of proteomic biomarkers related to....15 model parameters for.....20</p> <p>BSA-biotin/streptavidin interactions .....72</p> <p>Capillary electrophoresis.....121</p> <p>CAPS1 (calcium-dependent activator protein for secretion) .....215 role of NSF.....215</p> <p>Carboxylic acid units.....293 stable isotope labeling of.....293</p> <p>CASP (critical assessment of techniques).....233</p> <p>CASP3.....240 model evaluation in .....240</p> <p>CASP4.....241 model evaluation in .....241</p> <p>CASP5.....243 model evaluation in .....243</p> <p>Cation channel.....319 molecular architecture of.....321 structural folds of.....319</p> <p>Channel forming protein OmpF porin.....78 electrostatic potential mapping of .....78</p> <p>Chromatography.....263</p> <p>Chromophore-assisted laser inactivation (CALI) .....104</p> <p>CLIC6 chloride channel.....218</p> <p>D2R-DR interactions.....217</p> <p>D2R-GPCR interactions.....217</p> <p>DIGE .....121</p> <p>DNA viruses.....229 role on DNA .....229</p> <p>Dopamine receptor .....209 in neurological.....218</p>
--	---

in psychiatric disease.....	218	Hierarchical cluster analysis (HCA).....	183
novel protein interactions mediated by .....	211	application in proteomics .....	185
role of arrestin .....	213	problems of.....	184
role of calmodulin .....	214	Human growth hormone (hGH).....	192
role of DRAPs.....	209	Human pulmonary surfactant proteins .....	303
role of DRIPs .....	209	biochemistry of.....	304
role of dynamin-2.....	214	physiology of.....	304
role of filamin-A .....	213	proteomics of.....	303,311,313
role of GIPC.....	213	ICAT .....	121
role of GPCR-associated sorting protein (GASP).....	214	Individual protein interactions .....	67
role of G-proteins .....	215	actin-heavy meromyosin/actin interactions as .....	68
role of heart fatty acid binding protein (H-FABP).....	213	Insulin.....	191
role of neuronal calcium sensor-1 .....	214	synthetic analogues of .....	191
role of prostate apoptosis response-4 (Par-4).....	214	Intercellular adhesion molecule-1 (ICAM-1)/anti-ICAM-1	
role of protein 4.1 .....	213	interactions .....	72
role of receptor kinases .....	215	Intramers .....	174
role of signaling DRIPs.....	214	as protein regulators.....	174
role of spinophilin .....	213	Inwardly rectifying potassium channels.....	218
role of transient signaling components .....	215	Ion channel DRIPs .....	217
signaling in.....	211	Labeling chemistries .....	288
Doping control analysis .....	191	coupled separation strategies of .....	288
identification/characterization of .....	191	LC/MS instrumentation.....	296
peptides in .....	191	Lead optimization.....	100
proteins in.....	191	Mass spectrometry .....	112,269,287
Drug discovery.....	1	graphite/titanium in .....	279
functional genomic view of.....	1	in proteomics .....	269
protein microarrays in .....	9	in-place preconcentration in .....	273
proteomic view of .....	1	MALDI technology in.....	273
role of drug induced haploinsufficiency assay.....	2	open tubular capillaries in .....	282
using yeast as model system in .....	1	sample preparation techniques for.....	269
yeast two-hybrid system in.....	4	Molecular beacon aptamer (MBA) .....	32
Drug screening.....	2	for human -thrombin analysis .....	32
using yeast deletion strain collection for.....	2	for PDGF analysis .....	34
yeast biosensor assays in.....	3	for real biological samples .....	36
Erythropoietin (EPO).....	201	to target protein in real time to .....	32
From viral interactomes .....	226	Multidimensional liquid chromatography.....	387
Functional proteomics.....	103	Multi-domain proteins .....	69
other light-inactivation applications to.....	105	stretching of.....	69
using direct protein inactivation.....	103	Multiplex protein analysis.....	38
using high-throughput direct light inactivation.....	104	anisotropy imaging for .....	38
Functional RNAs .....	165	aptamers for.....	38
as tools in proteomics.....	165	Multivalent protein interactions .....	68
<i>in vivo</i> proteomic application of.....	171	cell adhesion proteoglycans interactions as.....	68
Gel electrophoresis techniques .....	148	Neurodegenerative diseases .....	47
allergen detection using.....	148	proteomic aspects of body fluids in .....	47
Genome .....	42	Neurology.....	41
protein network mapping in .....	50	application of proteomics in .....	41
Glucose .....	127	proteomic approach/tools in .....	42
Glycoproteins.....	149	subproteomic analysis in .....	49
techniques for structural characterization of.....	149		
G-protein coupled receptor (GPR).....	209		
Hemoglobin-based oxygen carriers (HBOCs).....	196		

Nitrogen starvations .....	127	array / chips in .....	44
Nucleic acid technologies .....	165	aspects of brain tissue in neurodegenerative diseases .....	44
for <i>in vitro</i> proteomics .....	165	data analysis of .....	49
Oxidative stress .....	128	detection technologies in .....	43
P2X4 receptor .....	320	graphite/titanium in .....	279
comparison with KCSA .....	323	isoelectric point ( <i>pI</i> )-based methods in .....	260
standard prediction methods for .....	320	material-enhanced laser desorption ionization (MELDI) in .....	273
structural fold with P2X models for .....	321	multidimensional prefractionation strategy in .....	264
structure prediction of .....	320	organelle prefractionation methods in .....	262
Parkinson's disease .....	47	perspectives in .....	319
Phosphate .....	127	prediction of hepatotoxicity using .....	97
Plant allergens .....	147	preparative electrophoresis in .....	260
analysis of protein sequence of .....	149	role in Alzheimer's disease .....	41
application of proteomics for investigation of .....	148	role in protein separation/digestion .....	42
component detection/identification techniques for .....	149	size-based methods in .....	261
identification/characterization of .....	147	solubility based methods in .....	261
immunological characterization of .....	149	statistical issues in data analysis of .....	180
managing proteomics information of .....	149	surface-enhanced laser desorption ionization (SELDI) in .....	273
proteomic approaches to .....	147	TAG-based methods in .....	264
Post-translational modifications (PTMs) .....	294	use in evaluation of nephrotoxicity .....	98
labeling for .....	294	Proteomic data .....	15
Proteins .....	70,104	analysis of .....	15
adhesion mapping of .....	70	artificial neural network data mining techniques for .....	15
direct light inactivation of .....	104	current developments in .....	15
elastic viscous force mapping of .....	72	Proteomics databases .....	179
electrostatic force mapping of .....	76	application in proteomics .....	185
force mapping of .....	70	comparison of large proteomics databases in .....	179
Protein activated ribozymes aptazymes .....	169	hierarchical clustering of .....	183
Protein chip .....	121	k-means clustering in .....	185
Protein detection .....	167	methods for discrimination classification/ prediction of .....	180
allosteric ribozyme for .....	167	partitioning methods in .....	185
Protein glycosylation .....	295	self-organizing maps (SOM) in .....	185
Protein interactions .....	55	unsupervised methods (clustering) for class discovery of .....	183
measurements of .....	61	Proteomic screening .....	18
measurements of forces in .....	55	development of ANN protocols for .....	18
with atomic force microscopy .....	55	stepwise additive approach to .....	20
Protein monitoring .....	31	weightings analysis in .....	20
in homogeneous solution .....	31	Pulmonary surfactant-associated proteins .....	305
in real-time solution .....	31	Quality control methods .....	235
molecular beacon aptamers for .....	31	Quantitative proteomics .....	287
Protein phosphorylation .....	294	progress in .....	287
Protein/protein interactions .....	7,66	stable isotope labeling of .....	293
chaperonin GroEL/citrate synthase interactions as .....	66	using chemical derivatization .....	289
identification of small molecules to inhibit .....	7	using enzymatic labeling .....	289
p-selectin/p-selectin glycoprotein ligand-1 (psgl-1) recoverin/lipid bilayers interaction as .....	67	using global labeling .....	290
Proteome .....	42	using guanidination/gunidation-like labeling .....	292
Proteome analysis .....	109	using labeling for absolute quantification .....	296
techniques for .....	109	using labeling on cysteine residues .....	289
Proteomics .....	41,97,103,179,259,269,305,319	using mass spectrometry .....	287
application in drug development/clinical management .....	98	using metabolic labeling .....	288
		using stable isotope labeling multidimensional	

liquid chromatography .....	287	SP-A .....	304
using tandem mass tags .....	293	physiology/biochemistry of .....	304
Receptor-receptor interactions .....	217	SP-B .....	304
Reductive amination .....	292	physiology/biochemistry of .....	304
Rice proteomics .....	325	SP-C .....	305
effect of bacteria .....	331	physiology/biochemistry of .....	305
effect of cold .....	326	SP-D .....	305
effect of drought .....	326	physiology/biochemistry of .....	305
effect of fungus .....	328	Spectrometry .....	43
effect of osmolarity .....	327	determination of peptide mass by .....	43
effect of ozone .....	327	Stable isotope labeling .....	287
effect of salinity .....	326	Synthetic genetic array (SGA) analysis .....	3
effect of virus .....	331	to identify chemical interactions .....	3
in functional analysis of stress responses .....	325	Thin gelatin films .....	74
RNA viruses .....	227	elastic force map .....	74
role on RNA viruses .....	227	Titin immunoglobulin domains .....	69
SELDI-MS .....	15	stretching of .....	69
initial data split/pre-screen in .....	19	Toxicoproteomics .....	97
multi-layer perceptron for data mining of .....	17	applications in drug development .....	97
parameterization in .....	19	TRPC channels .....	218
stepwise additive approach to .....	20	Two-dimensional electrophoresis .....	259
weightings analysis in .....	20	in proteomics .....	259
Sequence-function analysis of .....	320	sample preparation for .....	259
of P2X4 .....	320	Two-dimensional polyacrylamide gel electrophoresis (2-D PAGE) .....	110
Signalplex .....	209	Virus-host cell interactomes .....	230
as signal transduction machine .....	209	Viscosity map .....	75
in neurological disease .....	218	lysozyme layers .....	74
in neurotransmission .....	210	Yeast two-hybrid (Y2H) .....	225
in psychiatric disease .....	218	approaches for defining interactomes .....	226
Solid-phase extraction .....	269	viral protein interactomes using .....	225
capillary technology in .....	272	Yeast two-hybrid system in .....	4
cellulose/sepharose in .....	277	identification of peptide aptamers using .....	6
conventional column technology for .....	270	in target identification .....	4
disc technology in .....	272	Yeast .....	1
membrane technology in .....	272	as model system for drug discovery .....	1
miniaturized solid-phase extraction as .....	270	role of drug induced haploinsufficiency assay .....	2
nanoparticles in .....	278		
on-line technologies in .....	272		
polymeric particles/monolithic sorbents in .....	276		
silica particle/monolithic materials in .....	275		