

SUBJECT INDEX TO VOLUME 7

- Acute myeloid leukemia 159,199,315,323,343
 1'-acetoxychavicol acetate (ACA) for 327
 5-azacytidine/5-AZA-2'-deoxycytidine for 318
 all-trans retinoic acid (ATRA) in 165
 alpha-emitters for 348
 anti-CD33 MoAbs for 346
 beta-emitters for 347
 catechins for 324
 CD33 antigen in 345
 CD33 expression in 343-345
 chemopreventive/therapeutic effects of
 natural compounds in 323
 drug resistance in 167
 extrinsic mechanisms of resistance in 361
 gemtuzumab ozogamicin for 352
 graft-vs.-host proteomics in 167
 hematopoieses expression in 343
 histone deacetylase inhibitors in 166
 homovanillic acid derivative capsaicin for 326
 individualizing therapy of 159
 intrinsic mechanisms of resistance of 362
 mass spectrometry based technology for 160
 monoclonal antibodies for 343,345
 p53 in diagnostics/therapy of 199,204
 pharmacoproteomics in 165
 proteasome inhibitors in 166
 proteomics of 199
 proteomic analysis of clinical samples of 161
 proteomic strategies for 159
 radiolabeled antibodies for 347
 role of DNA hypermethylation of myeloid cells 315
 studies with radiolabeled anti-CD45 antibody .. 350
 studies with reduced intensity conditioning
 (RIC) 350
 targeting CD33 antigen for 344
 therapeutic target in 315
 therapy with conjugated antibodies 347
 translational studies of *in vivo* demethylation
 for 319
 treatment of 343
 tyrosine kinase inhibitors in 165
- Acute promyelocytic leukemia 359
 antibody therapy in 359
 studies with GO in relapsed type 361
 studies with HUM195 in 360
- ADAMTS proteinases 25
 as therapeutic target 25
 evolution of 25
 post-transcription regulation of 27
 post-translational regulation of 27
 regulation of 26
 regulation of activity by cofactors/inhibitors 27
 structure of 25
 transcriptional regulation of 26
- Algal toxins 209
 as apoptosis inducers 210
 mechanism for apoptosis by 210
 roles in apoptotic cell death 209
 to identify phosphoproteins 209
 to target protein phosphorylation 209
- Angiogenesis 109
 induced by cell therapy 109
 induced by gene therapy 109
- Angiotensin II 83
 activation of signal transduction by ROS
 induced by 83
- Anti-angiogenesis 443
- Anti-oxidant gene therapy 95
 by NF κ B decoy oligodeoxynucleotide 95
- Antioxidant vitamin 69
 Cohort studies of 69
 randomized clinical trials of 69
- Apolipoproteins 235
 in atherosclerosis 235
 in vascular disease 235
 peptide mimetics of 235
- Apolipoprotein (apo) A-I 235
 atherosclerosis inhibition by 236
 class A amphipathic helical peptides of 236
 interactions with lipopolysaccharide 238
 protective effects of 235
- Arsenic trioxide 197
 discovery of new mechanisms of 401
 in acute promyelocytic leukemia 398
 in hematological malignancies 397
 in multiple myeloma 399
 in myelodysplastic syndrome 400
- Aspirin 458
- AT₁ receptor 81
 ROS generation machinery used by 81
- Atopic eczema 503
 diagnosis of 503
 symptom scoring of 504
 treatment options for 504
- Bioactive peptides 247
 conformational constraint in 256
 synthesis of 247
- Biomarker 147
 2-DE gels of 155
 discovery of 148
 mass spectrometry of 155
- Body fluid 148
 proteomic quantification methods for
 comparison of 149
- Bone disease 423
 targeting pathways mediating 423
- Bone marrow (BM) 381
 biologic significance of MM cell adhesion to .. 381
- Bortezomib 441
 anti-tumor activities of 441
 clinical studies of 446
 in hematologic malignancies/cancers 446
 in multiple myeloma (MM) 444

- induction of cell stress/apoptosis by 443
 inhibition of cell adhesion/cytokine by 442
 inhibition of NF- κ B by 441
 preclinical study of 444
- Cancer** 457,495
 Mediterranean dietary traditions for 495
 molecular treatment of 495
- Cancer therapy** 385
 proteasome inhibition in 385
- Cardiovascular diseases** 15,101
 amino acids in 18
 antioxidant vitamins in 18
 dietary fibers in 17
 flavonoids in 20
 garlic (*Allium sativum*) in 16
 omegaA1-3-fatty acids in 16
 oxidative stress on progenitor/stem cells in 101
 peptides in 18
 plant sterols in 20
 prebiotics in 20
 probiotics in 21
 proteins in 18
 role of antioxidant foods 105
 role of nutraceuticals in 15
 soy in 16
- Carvedilol** 77
 effect of ROS formation by leukocytes 77
- Cationic antimicrobial peptides** 229
 biological significance of 230
 characteristics of 229
 historical background of 229
 therapies based on 229,232
- Cell signaling** 185
 computational approaches to 194
 tyrosine phosphorylation in 185
- Cell therapy** 110
 oxidative stress by 114
- Cellular networks** 137
 via experiments/simulations 141
- Cellular signaling** 135
 quantitative modeling of 140
- Cerebrospinal fluid** 147
 biomarkers for 155
 2-DE proteomic analysis of 155
- Chronic myeloid leukemia** 371
 ATP competitive inhibitors for 374
 non-ATP-competitive inhibitors for 377
 2-(phenylamino)pyrimidines for 374
 Src/Abl inhibitors for 374
 treatment of 371
 tyrosine kinase inhibitors in 371
- Chronic obstructive pulmonary disease (COPD)** 117
 antioxidative capacity in 120
 effect of carbon compounds 119
 effect of cell-generated oxidants 119
 effect of cigarette smoking 119
 effect of major anthropogenic pollutants 119
- Cohort studies** 69
 of vitamin E 69
- Computational methods** 135
 in systems modeling of cellular signaling 135
- Congenital cytomegalovirus infection** 303
 epidemiology of 303
 prevention of 310
 therapy for 310
 transmission of 303
 virus-host interaction in 303
- Coronary artery disease** 235
 Apo J peptides in 238
 cationic peptides in 238
 HDL function in 237
 lipoproteins in 235
 reverse cholesterol transport in 237
 small peptides in 238
 vascular function in 237
- Dietary lipids** 525
 analyze effects of 525
 DNA-microarray technologies for 528
 high-throughput functional genomic
 methods to 525
 high-throughput gene expression analysis of ... 426
 high-throughput proteome profiling with
 protein microarrays of 528
 high-throughput SNP analysis of 526
- DNA methylation** 315
 of hematopoietic cell differentiation 315
- Efamol** 503
 meta-analysis of randomized/placebo-
 controlled clinical trials of 503,506
- EligardTM** 265
- Endothelial function** 109
 induced by cell therapy 109
 induced by gene therapy 109
- Enzyme inhibitors** 267
- Erythropoiesis** 315
- Essential fatty acids** 467
 dietary sources of 468
 metabolism of 467
 metabolites of 469
 modulators of metabolism of 469
- Essential hypertension** 1
 genetic strategies to 2
 identification of candidate genes in 5
- Evening primrose oil** 503
 effect of 508
 in atopic eczema 503
- Farnesyltransferase inhibitors (FTIs)** 449
 clinical studies in MM 450
 pre-clinical activity in myeloma 450

- Fatty acid synthase (FASN) 483
 in normal/tumor cells 484
 pharmacological inhibitors of 483
 to catalyzed endogenous fatty acid biogenesis 483
- Fatty acid synthase inhibitors 485
 anti-tumoral actions of 488
 C75 as 485
 cerulenin as 485
 epigallocatechin-3-gallate (EGCG) as 486
 molecular markers for sensitivity to 490
 molecular mechanisms of 488
 orlistat as 486
 triclosan as 488
- Fluorescence correlation spectroscopy (FCS) 287
 derivation of fitting function for 294
 effects of triplet photophysics/saturation 288
 Gaussian approximation in 293
 triplet/saturation effects in measurements of ... 287
- Fluorescence fluctuation spectroscopy 51
 in reduced detection volumes 51
 reduced background noise in 55
 reduced detection volumes in 56
 total internal reflection (TIR) in 57
- Fluorescence saturation behavior 290
- Fluorescence spectroscopy 54
- Gamma linolenic acid 531,457
 anti-angiogenic actions of 457
 anti-vascular/anti-angiogenic actions of 463
 as an antiinflammatory omega-6 fatty acid 531
 cytoprotective action on normal cells/tissues .. 461
 derivatives of 457
 effect on anti-cancer drugs/radiation 461
 enhancers/inhibitors of tumor cell
 apoptosis in response to 461
 for glioma 462
 in cancer 532
 in diabetes 533
 in inflammation 532
 in insulin resistance 533
in vivo studies with 462
 molecular mechanism of tumoricidal
 action of 459
- Gemtuzumab ozogamicin 352
 as monotherapy in AML 353
 hematologic toxicities of 363
 in combination with conventional
 chemotherapy 356
 in transplantation 359
 mechanism of action of 352
 monotherapy in newly diagnosed AML 355
 non-hematologic toxicities of 363
 phase II studies of 353,359
 preclinical studies of 352
 structure of 352
 toxicity of 363
- Gene therapy 111,112
 oxidative stress by 114
- Granulopoiesis 315
- Hematopoietic stem cells 343
 CD33 expression by 343
- Heme oxygenase (HO)-1 87
 as anti-stress gene 88
 Bach1 as regulator of 90
 bilirubin by 90
- Hepatocytes 210
- HUM195 360
- Hyperlipidemia 77
 effect of ROS formation 77
- Hypertension 1,75
 association studies in 7
 effect of ROS formation 75
 genetic strategies to 2
 haplotype analysis of 8
 human study of 75
 identification of candidate genes in 5
 identification of genes for complex trait in 1
 linkage studies in 4
 phenotype in 7
 population stratification in 7
- Imatinib mesylate 372
 mechanisms of resistance of 372
- ImiDs™ 339
 apoptosis in 341
 for myelodysplastic syndrome 339
 T-cell co-stimulation by 340
- Immunomodulatory drugs (IMiDs) 415,437
 after autologous stem cell transplantation 418
 clinical application of 417
 development of 437
 effect on NK cells 417
 effect on angiogenesis 417
 effect on IL-12 416
 effect on osteoclasts 417
 effect on T cells 416
 effect on TNF α 415
 effect on tumor cells 417
 in newly diagnosed/untreated MM 419
 in relapsed/refractory MM 418
 mechanism of action of 415
- Inflammation 457
- Inflammatory diseases 241
 anti-inflammatory peptides in 241
 AT-001 (DnaJP1) in 242
 AVP-26452 in 242
 AVR-118 in 243
 D-4F (APP018) in 242
 icatibant in 243
 JPD-003 in 243
 LAB CGRP in 244
 neurovax (IR-208) in 243
 peptide therapeutics for 241
 R411 in 243
 RDP58 in 243
 reverse D-4F (Rev-D4F) in 242
 TT-232 in 243

- Insulin growth factor binding proteins 127
 characteristics of 127
 Insulin-like growth factor-1 (IGF-1) 125
 effect on vitamin D metabolism 129

 Left ventricular mass 77
 effect of ROS formation by monocytes 77

 Lenalidomide 340
 clinical trials in MDS 341

 Leukemia 171
 antitelomerase strategies for 178
 telomeres/telomerase in 171

 Leukemic cells 324
 clinical significance of MPO in 326
 myeloperoxidase (MPO)-mediated
 apoptosis in 324
 oxidative stress in 324

 Lipid peroxidation 457

 Magnet assisted transfection (MATra) 277
 benefits of 279
 comparison with other transfection
 technologies 284
 future of 284
 intracellular delivery of nucleic acids by 277

 Magnetic nanoparticles 277
 chemistry of 277

 Mammalian target of rapamycin (mTOR)
 kinase pathway 450

 Micropropagation 33
 for production of high quality plant-based
 medicines 33
 role in conventional plant-breeding 34

 Monoclonal antibodies 343
 mechanism of action of 345

 Mononuclear cells (MNCs) 73
 reactive oxygen species formation by 73

 Monounsaturated fatty acid oleic acid (18:1 n-9) 495
 anti-oncogenic actions of 495
 effect on HER2 oncogene 496

 mTOR inhibitors 452
 clinical trials with 452
 hematological malignancies 452

 Multiple myeloma 381,407,415,423,449
 antiapoptotic Bcl-2 family proteins in 409
 anti-MM activity of thalidomide for 387
 clinical studies of bortezomib in 385
 clinical studies of lenalidomide/revlimid in 388
 combination therapy with novel agents in 390
 cytokines in 384
 experimental agents for 389
 farnesyltransferase inhibitors in 449
 FGF in 384
 growth factors in 408
 histone deacetylase inhibitors in 411
 IGF-1 in 383
 IL-6 in 382
 IMiDs for 387
 immunomodulatory drugs for 415
 interleukin-6 in 407
 mTOR kinase inhibitors in 451
 NF- κ B pathway in 409
 novel therapeutic approaches in 389
 osteoblast inhibition in 427
 preclinical study of IMiDs in 387
 proteasome inhibitor for 385
 rapamycin in 449
 role of BM microenvironment in 381
 role of cytokine in 382
 role of IL-3 in osteoblast inhibition by 427
 role of MIP-1 α osteoclast activation in 425
 targeting Bcl-2 family proteins in 410
 targeting multiple signaling pathways in 410
 targeting signaling pathways in 407
 thalidomide for 387,431
 therapy for 415
 TNF α family in 409
 TNF α in 383
 transcriptional pathways in 410
 treatment of 381
 VEGF in 383

 Multiple sclerosis 147

 Myelodysplastic syndrome (MDS) 315,339
 angiogenesis in 340
 5-azacytidine/5-AZA-2'-deoxycytidine for 316
 biologic effects of lenalidomide in 340
 erythropoiesis in 340
 immunomodulatory drugs for 339
 thalidomide for 340
 role of DNA hypermethylation of
 myeloid cells 315
 therapeutic target in 315
 translational studies of *in vivo*
 demethylation for 319
 treatment for 339

 Myeloid malignancies 185,331
 ABL in 331
 clinical implications in 194
 FLT3 in 332
 KIT in 333
 oncogenic tyrosine kinase in 186,331
 oncogenic tyrosine kinase signaling in 185
 PDGFR in 333
 proteomics approaches to 185
 target therapy for 331

 Nanofluidic channels 60

 Nanotechnology 284

 Near-field optical scanning microscopy (NSOM) 59

 Nocturnal blood pressure 78
 effect of ROS formation 78

 Norepinephrine 78
 effect of ROS formation 78

 Nuclear factor- κ B (NF κ B) 95
 in cardiac diseases 96
 role in atopic dermatitis 98
 role in glomerulonephritis 97

- role in osteoporosis 98
 role in rheumatoid arthritis 98
 Nucleic acids 277
 delivery of 278
 Nutraceuticals 15
 in treatment/prevention of cardiovascular
 diseases 15

 Oleic acid 496
 anti-oncogenic actions of 496
 Oligodeoxynucleotides (ODNs) 95
 based gene therapy 99
 in cardiac diseases 96
 role in atopic dermatitis 98
 role in glomerulonephritis 97
 role in osteoporosis 98
 role in rheumatoid arthritis 98
 Olive oil 495
 anti-oncogenic actions of 495
 based Mediterranean-style diet 496
 Osteoclast 423
 activity of 423
 formation of 423
 suppression in MM bone disease 426
 Oxidative stress 87,109,117
 biotechnological methods to reduce 87
 in cardiovascular diseases 109
 in cardiovascular system 87
 in lung tissue 120
 induced by cell therapy 109
 induced by gene therapy 109
 role of bach1/heme oxygenase-1 pathway 87
 systemic type 121

 p53 199
 acetylation of 202
 family of 203
 network of 200
 post-translational modifications of 201
 proteomics of regulating pathways of 203
 Palauamide 249
 Peptide 261
 absorption enhancers for 269
 bioadhesive/mucoadhesive system for 269
 controlled delivery of 264
 GI site specific delivery systems for 271
 liposomes/lipid based systems for 271
 novel delivery technologies for 261
 novel injectable polymeric depot systems for 264
 parenteral route of administration of 262
 particulate carrier systems for 270
 pulmonary delivery of 271
 small molecule carriers for 268
 transdermal route of administrations of 272
 Peptidomimetics 247
 Peripheral arterial disease (PAD) 109
 endothelial function in 110

 Phosphopeptides 210
 analysis by mass spectrometry 212
 enrichment of 210
 Phosphoproteins 210
 enrichment of 210
 functional studies of 213
 visualization/quantitative evaluation in gels 211
 Phosphosites 212
 mass spectrometry of 212
 Placenta 306
 as barrier of defense 306
 Polymeric depot system 265
 Polymorphonuclear cells (PMNs) 73
 reactive oxygen species formation by 73
 Polyunsaturated fatty acids (PUFAs) 457,467
 as anti-bacterial 470
 as anti-fungal 470
 as anti-parasitic 470
 as anti-viral 470
 effect on ACE activity 470
 effect on endothelial nitric oxide generation 470
 effect on HMG-CoA reductase activity 471
 effect on lipoxins 471
 effect on neuroprotection 471
 effect on nitrolipids 473
 effect on pro-inflammatory cytokines 471
 effect on resolvins 471
 in Alzheimer's disease 478
 in atherosclerosis 476
 in fetal-alcohol syndrome 476
 in Huntington's disease 478
 in inflammation 474
 in metabolic syndrome X 478
 in schizophrenia 478
 molecular mechanism of tumoricidal
 action of 459
 Progenitor cells 101
 effect on human life span 105
 effects of oxidative stress on 103
 in cardiovascular risks 102
 in hypertension 104
 regulation of 102
 Proteasome inhibitors 385
 preclinical studies of 385
 Protein 261
 absorption enhancers for 269
 bioadhesive/mucoadhesive system for 269
 controlled delivery of 264
 GI site specific delivery systems for 271
 lipid based delivery systems for 266
 liposomes/lipid based systems for 271
 novel delivery technologies for 261
 novel injectable polymeric depot systems for 264
 oral bioavailability of 267
 oral delivery of 266
 parenteral route of administration of 262
 particulate carrier systems for 270
 pulmonary delivery of 271
 small molecule carriers for 268
 transdermal route of administrations of 272

- 14-3-3 Protein family 217
 as drug target 222
 functional differences in 217
 in cellular processes 221
 in disease 221
 isoform diversity of 217
 ligand recognition of 219
 phosphorylation of 218
 proteomic studies on interactome of 220
 structure/regulation of 217
- Proteomics 135,147,159,188
 based biomarker discovery 147
 computational data analysis in 151
 high-throughput quantitative analysis using 136
 in AML diagnostics 163
 in separation of proteins/peptides 160
 in studies on cell extracts 190
 in studies on single cells 193
 in studying oncogenic tyrosine kinase
 signaling 188
 in systems modeling of cellular signaling 135
 limitations of 148
 methodology of 148
- Randomized clinical trials (RCTs) 69
 of vitamin E combined with other antioxidants 71
 of vitamin E supplementation 70
- Rankl-Rank-OPG system 423
 physiological role of 423
 therapeutics targeting of 424
- Rapamycin 449
- RAT liver perfusion 210
 isolation/labeling of 210
- Reactive oxygen species (ROS) 73,81,323
 as risk factor of cardiovascular diseases 73
 formation by leukocytes 73
 genomic/proteomic approaches to 84
 in angiotensin II signal transduction 81
 induction of apoptosis *via* 323
 mechanism of 81
 modulation of 323
 production in treatment of myeloid leukemia .. 323
 prospective study of 75
- Restenosis 96
 after angioplasty/stenting 96
- Saturation model 296
 fitting simulated ACF using 296
 implementation of fitting by 296
 with experimental ACF 298
- Secondary metabolites 37
 of *Bacopa monniera* 42
 of *Chlorophytum borivilianum* 41
 of *Datura* metal 44
 of medicinal plants 39
 of periwinkle (*Catharanthus roseus*) 39
 of *Safed musli* 41
 of thornapple 44
 of *Water hyssop* 42
 production of 37
- SOS/VOD 364
 due to gemtuzumab ozogamicin 364
 management of 364
 pathogenesis of 364
- Stem cells 101
 effect of ang II receptor blockers (ARBs) 105
 effect of HMG CoA reductase inhibitors 104
 effect on human life span 105
 effects of drugs on 104
 effects of oxidative stress on 102
 in hypertension 104
 regulation of 102
- Stimulated emission depletion (STED) 61
- Surface plasmon wave-guides 61
- Tamandarin B analogues 251
- Telomerase 171
 diagnostics/prognostic/therapeutic
 exploitation of 171
 expression of 177
 in bone marrow failure 175
 in hematopoietic cells 174
 in leukemia 171,176
- Telomeres 171
 diagnostics/prognostic/therapeutic
 exploitation of 171
 in bone marrow failure 175
 in hematopoietic cells 174
 in leukemia 171,176
 length of 177
- Thalidomide 431
 adverse effects of 438
 chemistry of 431
 effect on myeloma cells 434
 for relapsed/refractory multiple myeloma 434
 immunomodulatory activities of 433
 in combination with corticosteroids 435
 in non-plasma cell malignancies 438
 mechanism of action of 432
 pharmacokinetics of 431
 regulatory issues of 438
- Tyrosine kinases 186
 activation of 186
 computational approaches to 194
 inhibitors of 373
- Vitamin D 125
 effects in cancer development 129
 in obese population 129
 metabolism of 126
 role of insulin-like growth factor I
 components in regulation of 125
 synthesis by human placenta 130
- Vitamin E 69
 cohort studies of 69
 in cardiovascular disease 69
 randomized clinical trials of 69