

1

13q14.3, (539) 156
 14-3-3, (551) 147
 4-1BB, (541) 163
 4N1-1, (544) 240
 4q35, (537) 133

A

- α 1H, (547) 37
aacA, (546) 401
*A*₁ ATPase, (544) 206
 α ₂, (539) 149
Ab initio energy calculation, (544) 21
Ab initio quantum mechanics, (547) 217
 ABC transporter, (546) 241; (551) 78
 Abietic acid, (550) 190
 ABIN-2, (543) 55
 Abl, (537) 203
 Abl interactor-1, (540) 195
 Absciscic acid, (554) 119
 Acarbose, (540) 47; (540) 53
 Accelerated evolution, (553) 333
 Accessory protein, (549) 141
 Acetaldehyde, (535) 136
 Acetohydroxy acid synthase, (555) 185
O-Acetyl-L-serine, (551) 133
 Acetylated tubulin, (534) 115
 Acetylation, (546) 51
 Acetylcholine receptor, (548) 85; (555) 91
N-Acetylneuraminic acid, (542) 105
O-Acetylserine sulphydrylase, (551) 133
 Acetyltransferase, (534) 119
 Acidic phospholipid, (546) 359
 β -Acrosin, (544) 119
 Actin, (538) 53; (539) 37; (546) 185; (546) 209; (547) 228; (551) 25; (552) 75; (552) 82; (552) 86; (553) 56
 Actin binding, (546) 359
 Actin binding protein, (552) 75
 Actin cytoskeleton, (535) 82; (539) 131; (547) 27
 Actin modulator, (554) 30
 Actin polymerization, (550) 94
 α -Actinin, (554) 289
Actinoplanes sp., (540) 47; (540) 53
 Action pattern, (544) 194
 Action potential, (548) 49; (553) 141
 Activation, (544) 153
 Activation tagging, (555) 459
 Activator protein-1, (548) 103
 Active site, (544) 268
 Activity, (535) 171; (546) 281
 Acute myeloid leukemia, (554) 10
 Acyl carrier protein, (548) 90
 Acyl-CoA derivatives, (536) 145
 Acyl-coenzyme A binding protein, (552) 253
 Acylphosphatase, (535) 171
 ADAM, (536) 25
 ADAMTS, (555) 431
 Adaptive binding, (554) 169
 Adaptive evolution, (547) 131
 Adaptor, (540) 111
 Adenine nucleotide translocator, (555) 363
 Adenine polynucleotide glycosylase, (538) 178
 Adeno-associated virus, (550) 74
 Adenosine diphosphate ribosylation factor, (548) 119
 Adenosine kinase, (533) 63
 Adenosine triphosphate, (545) 110
 Adenosine triphosphate-binding cassette transporter, (533) 42
 Adenosine/uridine rich element, (546) 37
 Adenosine(5')tetraphospho(5')adenosine, (543) 37
S-Adenosyl-L-homocysteine, (547) 111
S-Adenosyl-L-methionine, (534) 75; (547) 56; (547) 111
S-Adenosylmethionine, (541) 145
S-adenosylmethionine decarboxylase, (553) 131
 Adenovirus, (539) 111; (546) 325; (552) 214; (555) 521
 Adenovirus vector, (554) 179
 Adenylation, (540) 251
 Adenylyl cyclase, (545) 253; (554) 127
 Adhesion, (535) 82
 Adipocyte, (537) 85; (542) 65; (545) 103; (548) 125; (550) 190
 Adipogenesis, (548) 125; (555) 243
 Adiponectin, (545) 103
 Adipose tissue, (555) 243
 A disintegrin and metalloprotease domain, (553) 257
 Adjuvant, (534) 202
 ADP, (555) 390
 ADP-ribosylation, (554) 55
 ADP-ribosylation factor, (537) 91
 ADP-ribosylation factor-like protein 2, (534) 26
 Adrenal gland, (535) 101
 α ₁-Adrenergic receptor, (542) 109; (550) 51
 Adrenocortical cell, (536) 173
 Adrenomedullin, (544) 86
 Adsorption thickness, (540) 241
 Advanced glycation end product, (537) 85
 Adventitious root, (542) 37
 Aequorin, (554) 184
 Aerobic archaea, (550) 69
Aeropyrum pernix, (550) 69; (551) 133
 Affinity chromatography, (544) 228
 Affinity maturation, (546) 288
 Affinity purification, (547) 165
 AGC group, (546) 73
 Aggregation, (539) 149; (546) 265; (555) 380
 Aging, (541) 6; (547) 87; (551) 58; (555) 539
 Agmatine iminohydrolase, (549) 26
 Agmatine iminohydrolase (agmatine deiminase), (544) 258
 Agonist, (553) 342
 AIDS, (548) 59; (552) 47
 Akt, (536) 180; (536) 193; (540) 106; (544) 86; (546) 108; (549) 110; (552) 125; (554) 77; (554) 450; (555) 217
 Akt phosphorylation, (542) 60
 Akt-1, (541) 155
 Alanine-scanning mutagenesis, (555) 405
 Alcohol dehydrogenase, (539) 14
 Alcohol dehydrogenase, class III, (544) 143
 Aldehyde dehydrogenase, (546) 369
 Aldolase A, (534) 93
 Aldose reductase, (534) 175
 Alignment, (545) 105
 AlkA protein, (540) 171
 Alkalosis, (554) 399
 Alkane ω -hydroxylase, (545) 188
 Allosteric, (539) 100
 Allosteric communication, (533) 119
 Allosteric effect, (540) 81
 Alpha melanocyte-stimulating hormone, (543) 66
 Alternating accessibility, (555) 96
 Alternative oxidase, (538) 35; (552) 189; (555) 425
 Alternative promoter, (555) 623
 Alternative splicing, (535) 205; (547) 189; (555) 572
 Alu sequence, (534) 61
 Alveolar epithelial cell, (545) 173
 Alzheimer β -peptide fragment 12–28, (555) 371
 Alzheimer's disease, (535) 183; (541) 145; (553) 347
 AM251, (536) 157
 Amadori product, (555) 419
 Amantadine, (535) 34
 Amide hydrogen–deuterium exchange, (539) 125
 Amiloride, (539) 115; (551) 20
 Amiloride derivative, (549) 43
 Amino acid, (540) 176
 D-Amino acid, (552) 95
 Amino acid pair, (537) 121
 Amino acid radical, (545) 193

- Aminoacyl-tRNA synthetase, (534) 139; (547) 197
 Aminoglycoside adenylyltransferase, (536) 97
 Aminoglycoside antibiotic-inactivating enzyme, (546) 401
 Aminopeptidase, (552) 120
 Aminopeptidase N, (538) 29
 4-Aminopyridine, (550) 74
 Amino-terminus, (535) 125
 Ammodytotoxin, (553) 309
 Ammonia capture and detoxification, (551) 63
 AMP inhibition, (547) 11
 AMP-activated protein kinase, (546) 113
 Amphipathic, (554) 100
 Amphotericin, (550) 107
 α -Amylase, (541) 47
 Amyloid, (539) 149; (553) 347
 β -Amyloid, (541) 145
 Amyloid β protein, (546) 407; (553) 151
 Amyloid fibril, (543) 93
 Amyloid formation, (537) 63
 Amyloid precursor protein, (546) 407; (547) 193; (553) 347
 Amylopectin, (541) 137
 Anaphylatoxin, (537) 17
 Anaplerotic reaction, (534) 87
 Ancestor, (535) 171
 Ancillary subunit, (547) 162
 Androgen receptor, (549) 171; (555) 561
 Angiogenesis, (536) 19; (544) 86; (553) 56; (554) 88; (555) 419
 Angiostatin, (536) 19
 Angiotensin, (538) 65
 Angiotensin I-converting enzyme, (538) 65
 Angiotensin II, (551) 58
 Angiotensin-converting enzyme, (550) 84
 Anhydrobiosis, (553) 387
 Anilide derivative, (537) 101
 6-Anilino-5,8-quinolinedione, (551) 99
 Animal virus, (552) 28
 Animal virus entry, (555) 199
 Anionic surface, (541) 132
 Ankyrin repeat, (539) 2
 Annexin A1, (546) 195
 Annexin II, (548) 113
 Anorexia, (536) 45
 Antagonist, (544) 45; (553) 342
 Antenna, (555) 40
 Anthocyanin, (544) 210
 Anthrax, (550) 175
 Anthrax toxin, (554) 505
 Anti-apoptotic function, (545) 213
 Antibacterial mechanism, (548) 5
 Antibody, (534) 202; (538) 159
 Antibody engineering, (554) 323
 Antibody recognition, (546) 300
 Antibotulismic mechanism, (555) 375
 Antifreeze, (551) 13
 Antigen, (533) 115
 Antigen binding, (534) 202
 Antigen presentation, (553) 200
 Antigen processing, (533) 42
 Anti-inflammatory, (550) 190
 Antimalarial compound, (547) 217
 Antimicrobial peptide, (535) 195; (536) 215; (540) 229; (554) 100
 Anti-nitrosative capacity, (543) 113
 Antioxidant, (540) 3; (542) 60; (543) 113; (544) 252
 Antioxidant pharmacophore, (555) 601
 Antioxidant responsive element, (546) 181
 Antiporter, (549) 7
 Antisense oligonucleotide, (552) 145
 Antisense RNA, (546) 295
 Antiviral gene, (551) 53
 Antiviral therapy, (535) 34
 AP-1, (555) 437
 AP-2, (554) 81; (555) 437
 Apg12–Apg5 conjugate, (551) 71
 Apg3, (551) 71
 Apg7, (551) 71
 Apg8/Aut7 lipidation, (551) 71
aphD, (546) 401
 Apiaceae, (544) 93
 Apical sorting signal, (552) 240
 Apicoplast, (547) 80
 Apolipoprotein, (539) 19
 Apolipoprotein E receptor 2, (540) 181
 Apoptosis, (535) 113; (536) 45; (536) 85; (536) 180; (537) 79; (538) 19; (538) 41; (539) 56; (540) 86; (540) 117; (540) 125; (540) 223; (541) 1; (541) 52; (541) 57; (542) 60; (544) 123; (544) 153; (545) 110; (545) 151; (545) 219; (545) 246; (546) 81; (546) 185; (546) 195; (546) 218; (546) 379; (549) 94; (550) 5; (551) 29; (551) 147; (553) 51; (553) 167; (553) 250; (554) 478; (555) 180; (555) 217; (555) 380; (555) 539
 Apoptosis-inducing factor, (538) 19
 Apoptosis repressor with caspase recruitment domain, (543) 170
 Aquaglyceroporin, (555) 500
 Aquaporin, (537) 68; (540) 157; (542) 37; (547) 69; (555) 72; (555) 79
 Aqueous access channel, (555) 29
Aquifex aeolicus, (534) 139; (539) 91
Arabidopsis, (536) 92; (544) 79; (549) 26; (553) 119
Arabidopsis mutant, (555) 459
Arabidopsis thaliana, (534) 69; (534) 87; (544) 258; (550) 179; (555) 551
 α -L-Arabinofuranosidase, (553) 381
 Arachidonic acid, (538) 107; (546) 247; (546) 251; (555) 257
 Arbekacin resistance, (546) 401
 Archaea, (544) 165; (547) 201; (549) 123
 Archaeal rhodopsin, (555) 51
 Archaeobacterial potassium channel, (547) 165
Archaeoglobus fulgidus, (540) 171
 Archaeon, (544) 206; (551) 133; (552) 99
 Arfaptin, (537) 91
 Arginine, (547) 197
 Arginine kinase, (533) 95; (554) 201
 Arginine-rich motif, (553) 95
 Arg-to-Lys substitution, (540) 229
 Arrhythmia, (548) 74
 Artemisinin, (552) 141
 Arthritis, (555) 431
 Artificial chaperone, (553) 271
 Ascidian, L-type, (549) 67
 Ascifuranone, (538) 35
 Ascorbic acid, (550) 64
 ASCT1, (548) 69
 Asialoglycoprotein receptor, (553) 433
 D-Aspartic acid, (552) 193
Aspergillus niger, (554) 462
Aspergillus oryzae, (555) 516
 Assembly, (551) 42
 Association–dissociation kinetics, (546) 365
 Astrocyte, (534) 115; (537) 17; (553) 157
 Astroglia, (538) 71
 Astrogloma, (536) 209
 ATF4, (547) 15
 Atherosclerosis, (535) 190; (536) 6; (537) 146; (540) 245; (553) 419; (555) 257; (555) 478
 Atlantic salmon, (538) 96
 Atomic force microscopy, (547) 101; (549) 47; (551) 25; (552) 155; (552) 253
 Atomic model, (555) 21
 ATP, (547) 197; (553) 33; (553) 167; (555) 390
ATPAF1, (551) 42
ATPAF2, (551) 42
 ATPase, (534) 115; (547) 201
 ATPases associated with diverse cellular activities, (549) 14
 ATP binding cassette A1, (536) 6
 ATP-binding cassette protein, (553) 370
 ATP binding cassette transporter, (555) 102; (555) 111
 ATP-binding cassette transporter, (554) 23
 ATP dependence, (535) 141
 ATP-dependent protease, (553) 351
 AT-PDX, (554) 275
 ATP hydrolysis, (545) 61; (545) 76
 ATP receptor, (533) 54
 ATP-sensitive K^+ , (552) 259
 ATP synthase, (545) 61; (547) 97; (555) 29
 A-ATP synthase, (543) 47
 ATP synthesis, (533) 1; (545) 61
 δ -Atracotoxin, (554) 211
 AtsPLA $_2$ - γ , (553) 113
 atToc33, (544) 79
 AUG selection, (533) 99

Aut1/Apg3, (543) 154
 Autoantibody, (548) 85
 Autocrine motility factor, (534) 49
 Autolysis, (546) 340
 Autophagy, (543) 154; (549) 1
 Autotaxin, (538) 60
 Auxin, (553) 28
 Avidin, (555) 449
 Avidin–biotin interaction, (555) 611
 Axis formation, (554) 363
 Axis specification, (547) 1
 Axotomy, (533) 124
 AXR1, (553) 28

B

Bacillus thuringiensis, (538) 29
 Bacterial chemotaxis, (550) 135
 Bacterial flagellar filament, (535) 66
 Bacterial infection, (546) 25
 Bacterial motility, (545) 86
 Bacterial photosynthesis, (535) 166; (555) 35; (555) 45
 Bacterial transcription initiation, (544) 199
 Bacteriochlorophyll, (555) 35
 Bacteriocin, (545) 127
 Bacteriophage HK022, (545) 133
 Baculovirus, (534) 139; (545) 155
 BAD, (551) 147
 Bad, (555) 217
 BAF60a, (543) 55
 Bafilomycin, (535) 119
 BAG, (541) 11
 Barley, (546) 173
 Basal proton leak, (544) 133
 Basolateral surface, (552) 240
 Batten disease, (538) 207; (541) 40; (555) 351
bc₁ complex, (545) 39
 B cell, (535) 113
 B cell antigen receptor, (535) 113
 B-cell chronic lymphocytic leukemia, (539) 156
 B cell receptor, (553) 51
 Bcl2, (538) 41
 Bcl-2, (540) 125; (541) 57; (545) 110
 Bcl-2 family, (551) 29
 Bcl-2 family proteins, (536) 85
 Bcl-rambo, (534) 61
 Bcl-X, (553) 250
 Bcl-xL, (538) 41
 Bcl-x_L, (541) 57
 BCR-ABL, (535) 17
 Bcr-Abl, (541) 57
 Bdelloid rotifer, (553) 387
 Bdp1, (548) 33
 Becker muscular dystrophy, (537) 30
 Behavior, (555) 341
 BeKm-1, (547) 20
 Benzamil, (539) 115
 Beta-sheet, (555) 380
 Bfl-1, (551) 29
 BH3 domain, (551) 147
 BH4-only, (534) 61
 Bicelle, (545) 139
 Bicomponent leukotoxin, (552) 54
 Bicyclam, (546) 300
 Bile acid, (553) 299
 Bilirubin, (539) 85; (543) 113
 Binding, (553) 157
 Binding energy, (544) 194
 Biochemical simulation, (554) 467
 Bioenergetics, (555) 21; (555) 96
 Bioinformatics, (544) 236; (546) 98; (555) 572
 Biological rhythm, (555) 341

Bioluminescence, (540) 251
 Biomineralization, (535) 49
 Biomolecular interaction analysis mass spectrometry, (536) 130
 Biosensor, (546) 391; (554) 169
 Biosynthesis, (540) 47; (540) 53
 Biosynthesis gene cluster evolution, (539) 105
 Biotin, (536) 167
 Biotinylated spermine, (534) 180
 Bipolar disorder, (538) 145
 Bipolar mood disorder, (542) 74
 Block shuffling, (555) 483
 Blocking, (554) 159
 Blood group, (534) 185
 B lymphocyte, (540) 223
 BML-190, (536) 157
BNIP1, (540) 86
 Boar spermatozoa, (554) 342
 Body weight homeostasis, (552) 105
 Bombesin, (538) 134
Bombyx mori, (538) 29
Bombyx mori silk fibroin, (554) 337
 Bone, (537) 117; (553) 257
 Bone marrow, (550) 155
 Bone morphogenetic protein, (545) 115; (546) 133
 Bone morphogenetic protein-2, (536) 30; (544) 181
Bordetella avium, (535) 11
 Boric acid, (552) 219
 Botulinum neurotoxin, (542) 132
 Botulinum toxin type A, (555) 375
 Bovine serum albumin, (538) 25
 Brain, (535) 61; (536) 45; (536) 61; (537) 17; (551) 159
 Brain mitochondrion, (543) 179
 Branched fatty acid, (543) 98
 Branching, (551) 25
Brassica oleracea, (554) 50
 Brassinosteroid, (553) 28
 Brazzein, (544) 33
 BRCA1, (541) 149; (553) 183
 Breast cancer, (535) 153; (541) 149; (546) 17; (549) 171; (550) 79
 Breast cancer cell, (535) 6; (550) 119
 Bromanil, (555) 367
 Brönsted plot, (555) 45
 Brown adipose tissue, (551) 42
 Brush-border membrane vesicle, (546) 276
 Bryostatin-1, (534) 175
 BtR175, (538) 29
 BtuB, (545) 127
 Budding yeast, (554) 295
 Buffer effect, (555) 45
 Burst size, (550) 135
Buthus eupeus, (547) 20
Buthus tamulus, (539) 7
 Butyrate, (554) 347
 BZR cell, (546) 195

C

C2 domain, (546) 251
 C5a, (553) 11
 C7-cyclitol, (540) 47
 C7-cyclitol 7-kinase, (540) 53
 Ca channel, (549) 67
 Ca²⁺, (545) 233; (546) 6; (550) 57; (554) 133
 Ca²⁺-ATPase, (544) 50; (551) 37; (555) 106
 Ca²⁺ binding, (555) 106
 Ca²⁺ channel, (541) 69; (554) 399
 Ca²⁺ mobilization, (554) 443
 Ca²⁺ release, (555) 411
 Ca²⁺ release channel, (547) 32
 Ca²⁺ response, (533) 67
 c-Abl, (540) 195
 c-Abl kinase, (552) 160

- Cachexia, (544) 138
 Caco-2, (536) 225; (540) 117; (551) 165
 CACO-2 cell, (536) 12
 Cadherin, (534) 11
Caenorhabditis elegans, (534) 133; (537) 139; (543) 93; (543) 174; (555) 250
 Caffeine, (534) 75; (538) 134; (547) 56; (554) 473
 Calcineurin, (552) 125
 Calcitonin gene-related peptide, (555) 285
 Calcitonin receptor, (554) 433
 Calcium, (536) 193; (542) 7; (543) 179; (550) 51; (554) 127; (554) 184; (554) 505
 Calcium-activation, (552) 82
 Calcium binding, (535) 49; (551) 37; (551) 119
 Calcium-binding domain, (546) 271
 Calcium imaging, (551) 92
 Calcium influx, (533) 29; (538) 71
 Calcium oscillation, (534) 101
 Calcium signaling, (546) 359; (548) 49
 Calmodulin, (542) 7; (551) 119
 Calmodulin modulation, (548) 11
 Calorimetry, (539) 125
 Calpain, (546) 213; (555) 623
 Calpain phosphorylation, (542) 115
 Calpain regulation, (542) 115
 Calpastatin, (546) 213
 CaM-K kinase, (550) 57
 CaM-kinase cascade, (550) 57
 CaM-kinase δ , (550) 57
 cAMP, (536) 141; (544) 86; (554) 127
 cAMP-binding protein, (546) 103
 cAMP-dependent protein kinase, (546) 121
 cAMP receptor protein-FNR family, (541) 97
 cAMP-responsive element binding protein, (554) 403
 Campylobacter, (554) 224
 Cancer, (536) 66; (546) 25; (546) 159; (555) 358; (555) 478; (555) 583
 Cancer antigen, (536) 106
 Cancer cachexia, (536) 45
Candida albicans, (544) 228
Candida glabrata, (534) 39
 Cannabinoid, (536) 157
 Cannabinoids, (555) 561
cao gene, (541) 171
 Capacitative Ca²⁺ entry, (541) 69
 Capsule, (537) 198
 Captopril, (538) 65
N-Carbamoylputrescine, (544) 258
 Carbohydrate-binding module, (549) 147
 Carbohydrate metabolism, (543) 21
 Carbohydrate recognition, (536) 106
 Carcinogenesis, (544) 38
 Cardiac hypertrophy, (548) 79
 Cardiomyocyte, (539) 51; (542) 105; (546) 325; (548) 74
 Cardiomyocyte contraction, (544) 181
 Cardiovascular disease, (546) 237
 Carney complex, (546) 59
 γ -Carotene, (545) 120
 Carotenoid, (545) 120; (555) 35
 Carotenoprotein, (544) 189
 Cartilage, (542) 95
 Casein phosphopeptide, (551) 92
 Caspase, (536) 85; (540) 125; (546) 195; (546) 213; (550) 5; (551) 153; (553) 51; (554) 478
 Caspase-8, (546) 185
 Caspase-9, (544) 153; (549) 94
 Caspase substrate, (539) 37
 Catabolite inactivation, (544) 160
 Catalase activity, (552) 135
 Catalase-peroxidase, (542) 17; (552) 135
 Catalysis, (544) 268; (553) 18
 Catalytic activity, (540) 15
 Catalytic domain, (543) 108
 Catalytic mechanism, (538) 60; (541) 89
 Catalytic residue, (544) 103
 Catechin, (546) 265
 β -Catenin, (547) 1
Catharanthus roseus, (537) 101; (555) 311
 Cathepsin, (553) 51
 Cathepsin D, (539) 120
 Cathepsin G, (537) 23
 Cathepsin W, (552) 115
 Cation channel, (537) 151; (551) 20
 Cation conductance, (539) 115
 Cation- π interaction, (552) 35
 Cationic lipid, (552) 199
 Cationic lipid:DNA complex, (552) 199
 Caveolae, (536) 225; (538) 85
 Caveolin-1, (538) 85
 Caveolin-2, (538) 85
 CB₂, (536) 157
 CB3 cells, (535) 147
 Cbfa1/Runx2, (554) 154
 Cbl, (550) 119
 CC chemokine, (548) 125
 CCAAT box, (537) 58
 CCAAT/enhancer binding protein- α , (543) 25
 CD14, (553) 286
 CD31, (540) 7
 CD36, (537) 85
 CD38, (554) 133
 CD40, (534) 169
 CD44, (534) 11; (539) 45
 CD45, (534) 169
 CD89, (535) 205
 CD95/Fas, (540) 117
 CD98, (552) 184
 CD99, (540) 217; (546) 379; (554) 478
 CD137, (541) 163
 Cdc42, (550) 119
 CDC48, (549) 14
 Cd(II) binding, (533) 72
 CDK-activating kinase, (534) 69
 cDNA array, (553) 445
 C-domain, (550) 84
 CEA-CAM-1, (552) 184
 C/EBP homologous protein, (541) 33
 CEH-37, (554) 455
C. elegans, (554) 455
 Cell adhesion, (538) 8; (552) 184; (553) 433
 Cell adhesion molecule, (554) 311
 Cell apoptosis, (536) 173
 Cell culture, (540) 3
 Cell cycle, (534) 69; (537) 210; (544) 38; (544) 74; (544) 112; (544) 218; (545) 239; (546) 73; (546) 167; (553) 277
 Cell cycle checkpoint, (550) 5
 Cell cycle-dependent element/cell cycle genes homology region, (536) 66
 Cell cycle-dependent transcription, (536) 66
 Cell death, (537) 79; (544) 246; (553) 145
 Cell differentiation, (546) 213; (552) 120
 Cell division cycle, (536) 66
 Cell extract, (551) 25
 Cell growth, (546) 159; (555) 307
 Cell migration, (536) 19; (550) 94; (553) 11; (555) 346
 Cell motility, (538) 60
 Cell nucleus, (544) 74
 Cell polarity, (539) 167; (554) 45
 Cell proliferation, (536) 173; (540) 86; (546) 81; (549) 14
 Cell respiration, (555) 8
 Cell selectivity, (540) 229
 Cell signal transduction, (554) 467
 Cell surface molecule, (537) 111
 Cell surface protein, (544) 228
 Cell survival, (535) 6
 Cell suspension culture, (555) 311
 Cell transformation, (538) 178
 Cell volume regulation, (539) 115
 Cell wall, (549) 176
 Cell-cell interaction, (555) 223
 Cell-free protein synthesis system, (555) 455
 Cell-mediated cytotoxicity, (552) 115
 Cellular activation, (540) 217
 Cellular differentiation, (541) 93
 Cellular energy, (546) 113
 Cellular localization, (533) 14
 Cellular stress, (541) 11

- Cell-volume regulation, (537) 151
 Central nervous system, (546) 17
 Central nervous system regeneration, (533) 124
 Centroid, (551) 3
Centruroides noxius, (547) 20
 Ceramide, (535) 101; (537) 177; (538) 192; (539) 56; (546) 195
 Cerebral cortical neuron, (538) 145; (542) 74
 Cerebroside, (553) 365
 Ceruloplasmin, (554) 422
 Cervical cancer cell, (554) 494
c-fos, (537) 117
 $\Delta F508$ -CFTR mutant, (554) 173
 CG6877/Draut1, (543) 154
 cGMP, (539) 161
 cGMP phosphodiesterase, (536) 35
 CGTase, (541) 47
 Chagasin, (542) 12
 Channel, (533) 79; (543) 108; (555) 79; (555) 229
 Channel activity, (554) 173
 Channel biogenesis, (547) 162
 Channel blocker, (535) 29
 Channel function, (538) 159
 Channel ion, (552) 28
 Chaperone, (537) 215; (539) 100; (553) 125; (554) 439
 Chaperone activity, (545) 213
 Chaperonin, (547) 201
 Chaperonin subunit ϵ , (536) 35
Chara myosin, (546) 209
 Charcot–Marie–Tooth neuropathy, (546) 25
 Checkpoint, (553) 277
 Chemical inducer, (535) 136
 Chemical mechanism, (555) 185
 Chemical modification, (547) 170
 Chemical synthesis, (539) 138
 Chemiluminescence, (549) 83
 Chemiosmotic theory, (545) 25
 Chemokine, (537) 17; (542) 79; (553) 11
 Chemokine receptor, (542) 79
 Chemosensitivity, (544) 246
 Chemotaxis, (533) 25; (542) 79; (548) 125; (550) 94
 Chemotherapeutics, (553) 250
 ChemR23, (555) 495
 CheY, (538) 77
 Chimera, (543) 71; (543) 108
 Chimeric enzyme, (549) 147
 Chinese seahorse, (550) 124
 Chinese traditional medicine, (550) 124
 Chirality, (545) 97
 Chitin, (549) 176
 Chitin synthase activity, (549) 176
Chlamydomonas, (553) 109
Chlamydomonas reinhardtii, (543) 87
 Chloranil, (555) 367
 Chlorella virus, (552) 2; (552) 12
 Chlorella virus PBCV-1, (552) 7
 Chlorohydrin, (540) 245
 Chloroperoxidase, (536) 41
 Chlorophyll band shape, (547) 107
 Chlorophyll fluorescence, (543) 159
 Chloroplast, (536) 97; (544) 63
 Chloroplast ATP synthase, (545) 71
 Chloroplast protein import, (544) 79
 Chloroplast targeting sequence, (549) 26
 Chlorpromazine metabolism, (555) 236
 Chlorpropham, (550) 179
 CHO cell, (536) 71
 Cholecystokinin, (538) 134
 Cholera toxin, (554) 439
 Cholesterol, (536) 225; (537) 177; (551) 165; (553) 299
 Cholesterol-binding cytolysins, (553) 229
 Cholesterol depletion, (534) 164
 Cholesterol efflux, (536) 6
 Cholesteryl ester, (533) 21
 Chondrocyte, (542) 95; (545) 115
 chp-1, (551) 47
 Chromatin, (549) 152
 Chromatin immunoprecipitation, (536) 66; (536) 111; (555) 521
 Chromatin remodeling, (533) 14
 Chromatin-remodeling complex, (543) 55
 Chromosome 17, (546) 59
 Chronic myeloid leukemia, (535) 17
 λ cI repressor, (550) 46
 CIN85, (554) 81
Ciona intestinalis, (552) 193
 Ciprofibril-CoA, (536) 145
 Circadian clock, (555) 341
 CIRCE, (549) 57
 Circular dichroism, (548) 119; (554) 253; (555) 371; (555) 380
 Circular dichroism spectroscopy, (533) 21
 c-Jun, (545) 199; (553) 104; (554) 489
 c-Jun amino-terminal kinase, (539) 29
 c-Jun NH₂-terminal kinase, (553) 63
 c-Jun N-terminal kinase, (548) 103; (554) 489
 Clan GH-A, (553) 381
 Classification, (551) 3
 Classification of β proteins, (533) 9
 Clathrin, (554) 81; (555) 437
 Clathrin-coated vesicle, (555) 437
 Cleavage site, (553) 451
 Cleavage specificity, (553) 351
 CLIC1, (540) 77
 Clinical outcome, (533) 110
clk-1, (543) 174
 CLN1, (538) 207
 CLN3, (538) 207; (555) 351
 ClpB, (553) 125
 [Cl⁻]_i stimulation, (543) 103
 Cluster analysis, (542) 125
 Coagulation factor VII, (536) 35
 CoA ligase, (540) 251
 Coat protein, (545) 229
 Cochlea, (533) 79
 Cocoa, (555) 597
 Coenzyme binding, (539) 14
 Co-evolution, (553) 333
 Co-expression, (554) 173
 Cofactor-dependent phosphoglycerate mutase, (536) 77
 Coffee, (534) 75; (547) 56; (554) 473
 Cognate transducer, (536) 237
 Coiled-coil, (546) 281
 Coiled-coil formation, (535) 66
 Coiled-coil motif, (542) 119
 Cold acclimation, (549) 14
 Cold-adapted enzyme, (546) 340
 Cold water stress, (535) 183
 Colicin translocation, (545) 127
 Collagen, (542) 53; (547) 170
 Collagen evolution, (552) 91
 Colloidal carrier, (547) 177
 Colneleic acid, (538) 155
 Colon cancer, (540) 195
 Color vision, (555) 151
 Combinatorial library, (539) 2
 Combinatorial protein library, (540) 147
 Comparative analysis, (536) 101
 Comparative genomics, (539) 105
 Competitive antagonism, (536) 145
 Complement, (537) 17
 Complementation, (547) 165
 Complex I, (545) 9; (549) 39
 Complex II, (545) 31
 Complex formation, (554) 337
 Complex purification, (548) 90
 Component plane, (538) 117
 Computer model, (550) 135
 Concanamycin, (537) 79
 Concerted, (539) 100
 Conduction mechanism, (552) 17
 Cone pigment, (555) 151
 Confocal laser scanning microscopy, (537) 73
 Conformation and dynamics, (536) 237
 Conformation transition, (554) 337
 Conformational change, (537) 203; (545) 2
 Conformational dimorphism, (554) 105
 Conformational epitope, (534) 202
 Conjugated linoleic acid, (546) 335

- Conjugation, (538) 48
 Connexin, (540) 151
 Connexin-30.2, (540) 151
 Connexin-31.9, (540) 151
 δ -Conotoxin, (553) 209
 α -Conotoxin AuIB, (554) 219
 α -Conotoxin Epl, (554) 219
 Conserved protein domain, (551) 47
 Conserved residue, (553) 39
 Constitutive expression, (540) 58
 Contraception, (544) 119
 Control, (546) 127
Conus amadis, (553) 209
 Conus peptide, (553) 209
 Cooperative anti-insect scorpion toxin, (537) 106
 Cooperativity, (540) 96; (547) 201
 Coordinate expression, (555) 329
 CopA, (546) 391
 Copper binding protein, (553) 239
 Copper content, (554) 337
 Copper homeostasis, (546) 391; (554) 422
 Copper toxicity, (554) 422
 Coq7p, (543) 174
Corbicula, (533) 95
Cordyceps sinensis, (543) 140
 Core promoter, (540) 58
 Core structure, (553) 3
 Corepressor, (537) 157; (540) 255; (546) 149
 Coronavirus, (553) 451
 Cortical actin, (537) 35
 Cortical microtubule, (534) 161
 Cortisol secretion, (535) 101
 Costimulatory molecule, (540) 217
 Coupling, (533) 1
 CP47, (543) 148
 CpG island, (554) 67
 C protein, (545) 177
 cpTat pathway, (540) 96
 CPx-ATPase, (542) 159
 CPx-type ATPase, (546) 391
 Creatine kinase, (533) 95; (535) 119
 CREB binding protein, (554) 403
 Creutzfeldt–Jakob disease, (536) 61
 Crista, (546) 355
Crithidia fasciculata, (553) 131
 Cross- β , (539) 149
 Cross-linking, (547) 119
 Cross-reactivity, (543) 11
 Crustacean, (535) 49
 Cry1Aa, (538) 29
 Cry1Ac, (538) 29
 Crypt base columnar cell, (535) 131
 Crystal structure, (537) 171; (539) 14; (543) 164; (545) 39; (549) 171; (552) 86; (554) 105; (555) 106; (555) 279; (555) 297
 α -Crystallin domain, (545) 213
csk-I, (534) 133
 Csk homologous kinase, (544) 11
 CtBP, (537) 157
 C-terminal binding protein, (540) 255
 C-terminal Src kinase, (544) 11
 C-type lectin, (550) 124
 C-type lectin domain, (551) 53
 Cu,Zn-superoxide dismutase, (539) 68
 CueR, (546) 391
 CUG-binding protein 2, (537) 30
 Cu(I) binding, (533) 72
 CUL1, (541) 102
 Cupin, (535) 200
 Cupredoxin, (553) 239
 Curcumin, (538) 19; (555) 311
 CXCR4, (546) 300; (552) 247
 CXCR4 antagonist, (550) 79
 Cyanobacterium, (542) 159; (543) 42; (549) 26; (549) 52; (549) 57; (553) 68; (553) 223; (553) 239; (553) 295; (555) 425
 Cyclic adenosine monophosphate, (553) 397; (555) 268
 Cyclic adenosine monophosphate-dependent kinase, (542) 115
 Cyclic ADP ribose, (554) 133
 Cyclic AMP, (546) 103; (546) 121
 Cyclic nucleotide-gated channel, (548) 11
 Cyclic nucleotide monophosphate-binding domain, (546) 103
 Cyclic stretch, (541) 52
 Cyclin D1, (551) 123
 Cyclin T1 promoter, (549) 163
 Cyclin T1/CDK9, (543) 61
 Cyclin-dependent kinase, (534) 69
 Cyclin-dependent kinase 5, (547) 193
 Cyclin-dependent kinase inhibitor, (544) 38
 Cyclodextrin, (536) 225; (553) 271
 Cyclodextrin glycosyltransferase, (541) 47
 Cyclooxygenase, (546) 251
 Cyclooxygenase-2, (547) 75; (554) 88
 2-Cyclopenten-1-one, (553) 21
 Cyclopentenone prostaglandin, (553) 21
 Cyclophilin, (542) 137; (555) 335
 Cyclosporin A, (555) 335
 Cyclosporine, (552) 125
 l-Cys peroxiredoxin, (555) 192
 l-Cys peroxiredoxin related intronless gene 1, (555) 192
 Cystalsin, (554) 306
 Cysteine, (555) 285
 Cysteine and histidine rich domain containing protein, (551) 47
 L-Cysteine biosynthesis, (551) 133
 Cysteine chemical modification, (555) 29
 Cysteine desulfurase, (555) 263
 Cysteine modification, (546) 241
 Cysteine peptidase inhibitor, (542) 12
 Cysteine proteinase inhibitor, (536) 35
 Cysteine-rich domain, (549) 129
 Cysteine-rich intestinal protein, (533) 124
 Cysteine-rich protein, (534) 82
 Cysteine-scanning mutagenesis, (533) 42
 Cystic fibrosis, (544) 129; (554) 173
 Cystic fibrosis transmembrane conductance regulator, (535) 141; (554) 173
 Cytochrome, (535) 166; (539) 91; (548) 1
 Cytochrome *b*, (545) 39
 Cytochrome *b*₅ fusion, (542) 100
 Cytochrome *b*₅₅₉, (535) 159
 Cytochrome *c*, (538) 19; (541) 1; (549) 94; (551) 113; (555) 13; (555) 217
 Cytochrome *c*-550, (543) 148
 Cytochrome *c* oxidase, (545) 47; (545) 52; (555) 8
 Cytochrome *c* reductase, (545) 39
 Cytochrome oxidase, (546) 411
 Cytochrome P450, (545) 188
 Cytochrome P450 4F, (555) 236
 Cytokine, (539) 143; (545) 199; (551) 78
 Cytokine receptor, (538) 113
 Cytokine treatment, (544) 123
 Cytokinesis, (542) 7; (554) 45
 Cytokinin, (533) 63; (537) 101; (554) 373; (555) 291
 Cytokinin oxidase, (555) 291
 Cytolytic pore, (538) 159
 Cytoplasmic glutathione peroxidase, (538) 107
 Cytoplasmic male sterility, (540) 201; (544) 99
 Cytoplasmic tyrosine kinase, (543) 76
 Cytosine deaminase, (546) 315
 Cytoskeletal organization, (553) 419
 Cytoskeleton, (540) 217; (542) 7; (546) 257; (547) 228; (552) 75; (554) 50
 Cytosol, (544) 148
 Cytosolic Ca²⁺ concentration, (535) 113
 Cytosolic free Ca²⁺ concentration, (538) 134
 Cytotoxic ribonuclease, (540) 15

D

D4Z4, (537) 133
 Dab2, (554) 81
Danio rerio, (553) 90

- Data integration, (546) 98
 Data mining, (544) 236
 Daxx, (540) 223
 DC differentiation, (553) 413
 Death receptor 4, (544) 246
 Death receptor 5, (544) 246
 β -Decarboxylation, (554) 306
 Decoy, (547) 115
 Defense pathway, (546) 173
 Degron, (555) 397
 Dehydrogenase, (537) 157
 Dehydroluciferin, (543) 37
 Delayed rectifier K^+ channel, (550) 74
 Deleted in malignant brain tumor 1, (540) 21
 Deletion, (546) 59; (555) 483
 Denaturation, (545) 229; (554) 505
 Dendritic cell, (538) 149; (553) 413
 Deoxygenation, (543) 103
 3-Deoxyglucosone, (554) 138
 Deoxyguanosine kinase, (554) 319
 Dephosphorylation, (535) 71
 Desaturase, (538) 192; (542) 100; (545) 188
 $\Delta 4$ -Desaturase, (553) 440
 Desensitization, (553) 190
 Desferrioxamine, (537) 198
 Desiccation tolerance, (553) 387
 Desmoglein, (536) 203
 Destabilizing element, (535) 147
 β -Desulfination, (554) 306
 Deubiquitinating enzyme, (535) 77
 Deubiquitination, (549) 135; (553) 190
 Development, (540) 71; (554) 311
 Dexamethasone, (543) 25; (554) 489
 DExD/H box helicase, (554) 485
 DGDG:DMPC liposomes, (551) 13
 Diabetes, (541) 64; (542) 84; (545) 103; (546) 154; (551) 113; (554) 511
 Diabetes mellitus, (554) 138; (555) 419
 Diacylglycerol, (546) 6
 Diad, (542) 69
 Diagnosis, (554) 169
 Diazoxide, (536) 51
 Dielectric constant, (553) 223
 Diethyldithiocarbamate, (551) 99
 Differential display, (551) 53
 Differential scanning calorimetry, (533) 21; (553) 328
 Differential targeting, (552) 170
 Differentiation, (539) 29; (540) 167; (547) 183; (551) 139
 Diffusion, (545) 139; (553) 295
 Diffusion constant, (541) 126
 Digalactosyldiacylglycerol, (537) 128
 Digestive tract, (544) 210
 1,4-Dihydropyridine, (549) 67
 Dihydroxyacetone phosphate, (547) 11
 Diiron carboxylate proteins, (555) 425
 Dimer, (538) 113; (541) 33; (546) 281; (549) 47
 Dimer formation, (549) 157
 Dimerization, (546) 395
 Dimethyl sulfoxide reductase, (534) 156
 Dimethylallyl diphosphate, (541) 115
 Dimethylsulfoxide reductase, (555) 606
 3-[4,5-Dimethylthiazol-2-yl]-2,5-diphenyltetrazolium bromide assay, (552) 177
 Dimorphic fungus, (555) 469
 Dinucleoside polyphosphate, (543) 37; (550) 41
 Dioxygen reduction, (555) 8
 Disabled-2, (541) 21
 Discodermolide, (539) 34
 Discoidin domain, (544) 21
 Disordered protein, (553) 95
 Disordered regions, (535) 66
 Disulfide bond, (547) 115
 Disulfide bridge, (555) 285
 Divalent cation binding protein, (537) 96
 Diversity, (554) 224
 DmsD, (534) 156
 DNA, (542) 153
dna-2, (555) 250
 DNA binding, (537) 58; (543) 16; (554) 206
 DNA chip, (555) 583
 DNA condensation, (552) 199
 DNA damage, (553) 277; (554) 427; (555) 611
 DNA double strand break, (537) 1
 DNA glycosylase, (540) 171
 DNA imaging, (555) 611
 DNA ligase, (550) 69
 DNA methylation, (541) 145; (554) 67; (555) 459
 DNA methyltransferase, (538) 48
 DNA polymerase, (546) 295
 DNA precursor, (554) 319
 DNA–protein interaction, (545) 133
 DNA repair, (535) 153; (540) 171; (546) 167; (555) 250
 DNA replication, (546) 167; (553) 213
 DNA sequence, (534) 39
 DNA strand exchange, (546) 203
 DNA synthesis, (555) 591
 DNA topoisomerase II, (546) 374
 DNA unwinding, (552) 199
 DnaK, (533) 119; (553) 125
DnaK, (537) 215
 Docking, (547) 217; (548) 1
 Docosahexaenoic acid, (553) 440
 Domain conformation, (539) 120
 Domain mapping, (533) 14
 Domain movement, (555) 106
 Dopamine D_2 receptor, (533) 67
 D_2 dopamine receptor, (545) 155
 Doppel, (536) 61
 Double helix, (541) 137
 Doublet position, (537) 121
 Doxorubicin, (548) 74
 DOXP, (544) 4
Drosophila, (535) 171; (543) 154; (555) 307
Drosophila Chk2, (545) 209
Drosophila metallothionein, (533) 72
 Drp1, (554) 194
 Drug carrier, (540) 241
 Drug delivery, (537) 6
 Drug delivery system, (536) 120; (547) 177
 Drug development, (546) 140
 Drug efflux, (555) 66
 DsbDy, (543) 164
DSCKX1, (555) 291
 DsRed, (552) 110
 (ds)RNA, (553) 33
 Duchenne muscular dystrophy, (552) 145
 DUX4, (537) 133
 Dynamics, (553) 95; (555) 139
 Dynein, (544) 262
DYSL, (555) 464
 Dystroglycan, (555) 209
 Dystrophin, (537) 30; (552) 145

E

- E1A, (537) 157
 E1B-55K, (552) 214
 E1E2-pseudotyped particle, (546) 385
 E2F, (544) 112; (544) 218
 E3 ligase, (544) 218
 E3-type SUMO ligase, (554) 111
 E3 ubiquitin ligase, (539) 78; (541) 102
 E6, (536) 220
 E93, (535) 61
 EA.hy926 cells, (540) 181
 Ebola glycoprotein, (535) 23
 Ebola GP2, (533) 47
 EC 1.14.15.3, (545) 188
 E-cadherin, (536) 203
 Ectodomain shedding, (536) 25
 EDG-1, (533) 25

- Effect of oxygen, (544) 15
 Effective concentration, (552) 160
 EF-hand, (547) 189
 EF hand calcium binding protein, (545) 151
 EGR2, (554) 67
 Ehrlich–Lettre-ascites tumour cell, (539) 115
 eIF4GI, (533) 89
 eIF4GII, (533) 89
 eIF5A, (555) 464
 Elastase, (553) 360
 Electrochemical coupling, (549) 39
 Electrogenic phase, (553) 223
 Electron microscopy, (536) 167; (537) 68; (546) 355; (555) 91
 Electron paramagnetic resonance, (534) 143; (539) 95; (547) 87; (550) 185; (555) 606
 Electron paramagnetic resonance spectroscopy, (538) 81
 Electron/phonon coupling, (547) 107
 Electron spin resonance, (542) 60
 Electron transfer, (539) 91; (540) 26; (540) 234; (543) 164; (545) 52; (545) 193; (546) 189; (548) 1
 Electron transport, (543) 159; (545) 31
 Electron transport in *Synechocystis* sp. PCC 6803, (544) 15
 Electrophysiology, (554) 173
 Electroporation, (538) 149
 Electrospray ionization mass spectrometry, (541) 28
 Electrostatic interactions, (553) 423
 Electrotransfer, (552) 145
 Elk-1, (545) 199
 Elongation factor, (538) 139
 Embryo, (539) 167
 Embryonal tumor, (533) 110
 Embryonic carcinoma, (552) 184
 Embryonic stem cell, (554) 111
 Enantiomeric cholesterol, (553) 229
 Ena/VASP homology domain-containing protein, (546) 65
 Endocytosis, (540) 15; (546) 185; (553) 262; (555) 199
 Endogenous channel, (552) 61
 Endoplasmic reticulum, (554) 439
 Endoplasmic reticulum-associated degradation, (555) 126
 Endoplasmic reticulum stress, (553) 151
 Endopolygalacturonase, (554) 462
 Endorphins, (552) 155
 Endosome, (551) 25
 Endosperm, (547) 151
 Endostatin, (536) 19; (539) 149
 Endothelial cell, (541) 52; (551) 153; (553) 56; (555) 567
 Endothelial growth factor receptor, (535) 87
 Endothelial nitric oxide synthetase, (555) 567
 Endothelium, (538) 168; (544) 252
 Endotoxin, (535) 11; (553) 135
 Endurance training, (551) 104
 Energy metabolism, (543) 5
 Energy transduction, (545) 2
 Energy transfer, (546) 345; (553) 68
 Enhancer, (554) 67
 Enkephalins, (552) 155
 Enol, (549) 31
 Enterolobin, (549) 47
 Entropic spring, (535) 55
 Env, (535) 195
 Environmental stress, (547) 125
 Enzymatic activity, (551) 159
 Enzyme activation, (539) 14; (553) 457
 Enzyme function, (555) 505
 Enzyme inhibition, (555) 367
 Enzyme kinetics, (537) 23; (555) 185
 Enzyme-linked immunosorbent assay, (540) 133
 Enzyme specificity, (541) 89
 Enzyme turnover, (553) 131
 Enzymology, (534) 143
 Eosinophil, (537) 111
 Eosinophil-derived neurotoxin, (537) 111
 Epac, (546) 121
 Eph, (540) 65
 Ephrin, (540) 65
 Epidermal growth factor, (553) 232
 Epidermal growth factor receptor, (535) 71; (536) 71; (553) 262; (554) 467
 Epidermal growth factor (receptor), (554) 81
 Epigallocatechin gallate, (546) 265
 Epiregulin, (553) 232
 Episomal vector, (555) 489
 Epithelial cell, (554) 30
 Epithelial differentiation, (540) 21
 Epithelium, (538) 101
 Epitope, (546) 321; (554) 478
 1-*epi*-Valienol, (540) 53
 Eps15, (553) 262
 Epsilon subunit, (545) 71
 Epstein–Barr virus, (547) 119; (555) 397; (555) 489
 Epstein–Barr virus nuclear antigen-2 coactivator P100, (543) 190
Equisetum arvense, (546) 189
 Equistatin, (539) 120
 Ergtoxin, (539) 138; (547) 20
 ERK2, (548) 43
Erwinia amylovora, (537) 198
 Erythroid, (534) 119
 Erythroleukemia cell, (554) 35
Escherichia coli, (534) 139; (534) 156; (537) 42; (537) 215; (543) 174; (546) 295; (547) 197; (548) 90; (549) 141; (553) 397; (555) 229
Escherichia coli O128 gene cluster, (553) 99
 E-selectin, (550) 89
 Esmolol, (548) 74
 Essential dynamics, (535) 29; (550) 168
 Essential hypertension, (543) 103
 EST, (551) 63
 Estradiol, (535) 153
 Estrogen, (535) 6; (546) 17; (553) 445
 Estrogen receptor, (546) 17
 Ethanol, (535) 136
 Ethanol dehydrogenase, (544) 143
 Ethylene response factor, (550) 149
 Ets, (538) 168
 Eukaryote, (533) 99
 Eukaryotic transcription, (548) 33
 Evolution, (552) 193; (552) 225; (553) 18; (553) 39; (554) 1; (554) 237; (554) 381
 Evolutionary relationship, (536) 77; (544) 103
 Ewing's sarcoma, (553) 104
 Excisionase, (545) 133
 Excitation energy transfer, (543) 159; (553) 79
 Exciton coupling, (539) 85
 Exendin, (553) 342
 Exocytosis, (548) 49
 Exon, (546) 349
 Experimental autoimmune myasthenia gravis, (548) 85
 Expressed sequence tag, (536) 101; (540) 259; (542) 37; (550) 124
 Expressed sequence tag analysis, (538) 183
 Expression, (542) 22; (548) 37; (549) 157; (555) 533
 Expression in *Saccharomyces cerevisiae*, (555) 268
 Extended –10 promoters, (544) 199
 Extended oligonucleotide binding fold, (535) 94
 Extracellular matrix, (537) 6; (552) 91; (553) 433
 Extracellular matrix protein, (538) 8
 Extracellular signal-regulated kinase, (542) 115; (546) 121; (550) 107; (554) 154
 Extracellular signal-regulated kinase-2, (542) 79
 Extracellular signal-regulated kinase phosphorylation, (547) 92
 Ezrin, radixin, moesin (ERM) proteins, (553) 195
 Ezrin/Radixin/Moesin proteins, (547) 212
- ## F
- F08H9.3, (537) 139
 F08H9.4, (537) 139
 Fab antibody, (546) 288
 Facilitated glucose transporter isoform 1, (555) 274
 Facilitated glucose transporter isoform 1 deficiency syndrome, (555) 274
 Facioscapulohumeral muscular dystrophy, (537) 133

FAD-glycerol-3-phosphate dehydrogenase, (536) 92
 FAF1, (546) 218
 Family 51, (553) 381
 Farnesoid X-receptor, (553) 299
 Fas, (540) 223; (546) 185; (546) 315
 Fas aggregation, (554) 478
 Fas-associated factor, (546) 218
 Fas-ligand, (552) 247
 Fasting, (544) 133; (548) 21
 Fat body, (543) 154
 Fatty acid, (546) 335
 Fatty acid-binding protein, (553) 299
 Fatty acid elongating activity, (547) 137
 Fcγ receptor, (550) 101
 Feedback control, (553) 119
 [Fe]-hydrogenase, (548) 1
 Femtosecond spectroscopy, (540) 26
 Ferredoxin, (546) 189; (553) 408; (555) 40
 Ferredoxin (flavodoxin)-(reduced) nicotinamide adenine dinucleotide phosphate reductase, (553) 408
 Ferredoxin-NADP⁺ reductase, (546) 189
 Ferredoxin:thioredoxin reductase, (549) 167
 Ferritin, (537) 187
 Ferroxidase, (554) 422
 Fertilisation, (544) 119
 Fet3p, (554) 422
 Fetal liver, (550) 155
 FGF7, (552) 150
 FGF7/FGFR complex, (552) 150
 FGF10, (552) 150
 FHL2, (553) 183
 Fibrates, (536) 145
 Fibril-associated collagen with interrupted triple helix, (552) 91
 Fibrillation, (542) 147
 Fibroblast growth factor, (536) 30; (552) 150
 Fibroblast growth factor-10, (545) 173
 Fibroblast growth factor receptor, (548) 43; (552) 150
 Fibroblast growth factor receptor type-1, (536) 30
 Fifth transmembrane segment M5, (544) 50
 Filter binding assay, (549) 123
 Firefly luciferase, (543) 37
 First-pass metabolism, (544) 143
 Fis1, (555) 511
 Fission yeast, (554) 45
 FKHR, (536) 232
 Flagellin, (535) 66
 Flanking marker co-conversion, (544) 165
 Flash-induced kinetics, (553) 223
 Flavanol, (537) 146
 Flavivirus, (535) 34
Flavobacteriaceae, (545) 120
 Flavodoxin, (549) 52; (553) 408
 Flavone, (543) 184
 Flavonoid, (555) 597
 Flavonoid biosynthesis, (544) 93
 Flavonol, (537) 146
 Flexible linker, (552) 160
 FLIP1, (543) 55
flo-1 promoter, (555) 223
flotillin-1, (555) 223
 FLU, (553) 119
 Flufenamate, (551) 20
 Fluoranyl, (555) 367
 Fluorescence, (533) 59; (533) 119; (550) 175; (554) 184
 Fluorescence correlation spectroscopy, (541) 126; (546) 365
 Fluorescence emission, (553) 68
 Fluorescence labelling, (536) 120
 Fluorescence lifetime and quantum yield, (553) 79
 Fluorescence probe, (538) 25
 Fluorescence resonance energy transfer, (535) 175; (545) 133; (546) 87; (550) 175; (553) 85
 Fluorescence spectroscopy, (546) 271
 Fluorescent dye, (554) 23
 Fluorescent protease substrate, (535) 175
 Fluorescent protein, (546) 87
 Fluoride ion, (547) 111
 5'-Fluorodeoxyadenosine synthase, (547) 111
 4-fluorotryptophan, (547) 197

F_O, (540) 201
 Fold recognition, (544) 103; (555) 505
 Folding, (555) 122
 Folding pathway, (554) 505
 Folic acid, (555) 601
 Follicular dendritic cell, (549) 110
 Formaldehyde dehydrogenase, (544) 143
 Formin-binding protein 17, (554) 10
N-Formyl-methionyl-leucyl-phenylalanine, (540) 206
 FPL-64176, (549) 67
 FRAT, (553) 347
 Free energy calculation, (554) 159
 Free radical, (540) 3; (542) 89; (543) 179
 Free radicals, (536) 51
 Frizzled receptor, (554) 363
 Fructose, (546) 276; (549) 77
 Fructose-1,6-bisphosphatase, (539) 51; (550) 35
 Fructose-2,6-bisphosphatase, (536) 77
 Fructose-1,6-bisphosphate phosphatase, (543) 87
 Fructose-2,6-bisphosphate, (554) 264
 Fructosyltransferase, (534) 207
 FTIR, (537) 161; (555) 2
 FTY720, (554) 189
 Fucosyltransferase, (554) 330
 α (1 → 2) Fucosyltransferase, (553) 99
Fugu rubripes, (538) 96
 FUGUE, (555) 505
 Full-length cDNA, (554) 17
 Full-length mutant ataxin-3, (546) 307
 Fumarate reductase, (543) 1; (545) 31; (555) 21
 Functional analysis, (554) 394
 Functional genomics, (539) 111; (555) 551
 Fungal secondary metabolism, (539) 105
 Fura-2, (551) 92
 Furin, (536) 203; (554) 275
Fusarium oxysporum, (534) 82
 Fusion peptide, (535) 23
 Fusion protein, (537) 53; (545) 155

G

G1 arrest, (544) 223; (554) 347
 G6Pase, (549) 72
 Gαi protein, (554) 154
 Gadolinium, (539) 115; (551) 20
 GAF domain, (539) 161
 Galactocerebroside, (536) 241
 Galactolipid, (537) 128; (544) 63
 Galactose, (543) 21; (555) 297
 Galactosemia, (543) 21
 β-Galactosidase, (533) 115
 Galactosyltransferase, (538) 163
 Gamma melanocyte-stimulating hormone, (543) 66
 Gamma subunit, (545) 71
 Ganglioside, (534) 33; (537) 73; (547) 183; (548) 28; (555) 199
 GAP, (539) 131
 Gap junction, (533) 79; (540) 151
 Gastric absorption, (544) 210
 Gastric cancer, (545) 144
 Gastric juice, (550) 64
 Gastric lipase, (552) 170
 Gastritis, (543) 184
 GATA, (538) 168
 Gate, (555) 91
 Gating, (535) 125; (555) 62; (555) 85
 Gating mechanism, (552) 23
 Gay-Berne potential, (554) 369
 GCC-box, (536) 151
 G+C content, (540) 188
 GcpE, (544) 4
 Gd³⁺, (545) 233
 Gelsolin, (552) 75; (552) 82; (552) 86

- Gender, (546) 237; (548) 21
 GeneAtlas pipeline, (554) 257
 Gene expression, (533) 110; (535) 136; (536) 135; (537) 210; (538) 163; (538) 207; (540) 71; (540) 167; (547) 51; (548) 49; (550) 11; (551) 42; (554) 373; (554) 427; (555) 204; (555) 341; (555) 583
 Gene expression data, (542) 125; (551) 3
 Gene promoter, (536) 111
 Gene regulation, (535) 147; (541) 11; (542) 17; (545) 183; (552) 120; (555) 516
 Gene replacement, (538) 139
 Gene selection, (551) 3
 Gene silencing, (548) 113; (552) 247
 Gene therapy, (538) 149; (545) 144
 Gene transcription, (536) 111
 General acid catalysis, (555) 45
 Generative cell, (542) 47
 Genetic algorithm, (555) 358
 Genetic disease, (533) 79
 Genome, (540) 188
 Genome duplication, (552) 91
 Genome sequence, (553) 239
 Genomic stability, (550) 5
 Genomic structure, (542) 22
 Genomics, (554) 224
 Geodesic, (534) 7
 Germ cell, (547) 61
 Germ-line, (555) 250
 GHKL ATPase and kinase, (544) 268
 Ghrelin, (536) 173; (541) 64; (552) 105
 Giant liposome, (534) 33
 Gicerin, (554) 311
 Glc7, (544) 160
 GlcN6P-deaminase, (551) 63
 O-GlcNAc, (546) 154
 Gli1, (550) 46
 Gliadin-derived peptide, (540) 117
 Glial cells missing, (553) 315
 GlnB, (543) 42
 Globin, (552) 99
 Globin-coupled sensor, (552) 99
 Glucagon-like peptide-1, (553) 342
 Glucan, (548) 59
 Glucocorticoid, (541) 75
 Glucocorticoid receptor, (554) 489
 Glucocorticoid receptor interacting protein-1, (539) 19
 Glyconeogenesis, (534) 87; (550) 35
 Glucosamine, (534) 54; (551) 87
 Glucose, (541) 137; (543) 21; (549) 77; (554) 351
 [1,2-¹³C₂]Glucose, (554) 342
 Glucose metabolism, (541) 109; (550) 35; (554) 342; (555) 307
 Glucose-6-phosphatase, (551) 159
 Glucose-6-phosphate, (546) 127
 Glucose transport, (536) 161
 Glucose transporter, (542) 84
 Glucosylation, (555) 311
 Glucosylceramide synthase, (553) 365
 GLUT4, (534) 54; (536) 232
 GLUT5 promoter, (549) 77
 Glutamate decarboxylase, (554) 41
 Glutamate dehydrogenase, (540) 163; (545) 167
 Glutamate receptor agonist, (535) 44
 Glutamine, (545) 167; (550) 168
 γ -Glutamylcysteine synthetase, (554) 417
 Glutaredoxin, (554) 149; (555) 443
 Glutathione, (537) 63; (543) 144; (546) 223; (551) 165; (554) 149; (554) 284; (554) 417
 Glutathione-dependent formaldehyde dehydrogenase, (543) 136
 Glutathione peroxidase, (554) 417
 Glutathione peroxidase mimic, (535) 179
 Glutathione S-transferase, (538) 14; (553) 427; (554) 417
 O-Glycan, (554) 330
 Glycation, (555) 419
 Glyceraldehyde, (554) 138
 Glycerol, (553) 68; (555) 79; (555) 500
 Glycerol metabolism, (536) 92
 Glycerol-3-phosphate shuttle, (536) 92
 Glycerophospholipid, (547) 101
 N-Glycosylation site, (533) 29
 Glycogen, (546) 127; (551) 87
 Glycogen synthase, (546) 127; (551) 87
 Glycogen synthase kinase, (553) 347
 Glycogen synthase kinase 3, (553) 173; (554) 253
 Glycogen synthesis, (541) 109
 Glycogenin, (551) 87
 Glycolipid, (553) 109
 Glycolysis, (550) 23; (553) 167; (554) 264; (554) 342
 Glyconeogenesis, (547) 11
 Glycopolymer, (553) 433
 Glycoprotein, (535) 195; (546) 385
 P-Glycoprotein, (536) 225; (545) 144; (548) 28
 Glycoprotein maturation, (538) 203
 Glycosaminoglycan, (537) 6; (537) 23
 Glycosidase, (544) 103
 Glycoside hydrolase, (538) 1; (541) 47
 Glycosphingolipid, (553) 365
 Glycosyl hydrolase, (553) 381
 Glycosylation, (544) 57; (546) 154; (555) 209
 Glycosylphosphatidylinositol anchor, (550) 179
 Glycosyltransferase, (554) 515
 Glyoxalase, (554) 284
 GM3 synthase, (555) 204
 GM-CSF, (550) 94
 GNAT superfamily, (534) 119
GNPI, (551) 63
 Goblet cell, (540) 157
 Gold, (546) 391
 Golgi apparatus, (546) 81; (546) 257
 Golgi complex, (554) 35; (554) 394
 Golgi-localized γ -ear-containing ARF binding protein, (537) 171
 Gonadotropin-releasing hormone, (543) 66; (552) 193
GORK, (554) 119
 GPCR, (550) 11; (555) 495
 G protein, (544) 27; (547) 27; (550) 11; (554) 95
 G protein-coupled receptor, (542) 142; (545) 155; (546) 65; (553) 342; (554) 381; (555) 151
 G-protein-coupled receptor, (533) 25; (533) 29; (538) 173
 G protein coupling, (533) 67
 G protein α subunit, (555) 329
 G protein $\beta\gamma$ subunit, (555) 329
 G_q-coupled receptor, (540) 106
 Gracalcin, (545) 151
 Grb7 family, (548) 43; (554) 240
 Green fluorescence protein, (553) 245
 Green fluorescent protein, (538) 125; (538) 149; (541) 126; (549) 35; (551) 29; (553) 90; (554) 394; (555) 397; (555) 483
 Green tea, (543) 184; (546) 265
GroEL, (537) 215
 GroEL, (549) 57
 Ground state isomerization, (549) 35
 Growth, (548) 49
 Growth factor signaling, (543) 76
 Growth hormone, (541) 64; (555) 567
 Growth hormone deficiency, (555) 567
 Growth hormone secretagogue receptor, (536) 173
 Growth inhibition, (555) 268
 Growth rate, (553) 397
 GSNO reductase, (543) 136
 GTPase, (544) 79; (546) 11; (546) 93; (555) 455; (555) 556
 GTPase p21ras, (551) 153
 GTPase-activating protein, (546) 6
 GTP γ S, (533) 67
 Guanidino kinase, (554) 201
 Guanine exchange factor, (546) 121
 Guanine nucleotide exchange factor, (539) 78; (540) 211; (546) 6; (546) 11
 Guanine-nucleotide exchange factor, (546) 93
 Guanosine 5'-[γ -thio]triphosphate, (547) 27
 [³⁵S]Guanosine-5'-O-(3-thio)triphosphate binding, (545) 155
 Guanylyl cyclase, (536) 12; (545) 253
 Guard cell, (554) 119
 Gut morphogenesis, (549) 115

H

- H^+ / Na^+ antiporter, (545) 239
 H9c2, (536) 85
 H9c2 cell, (542) 105
 α -Haemolysin, (546) 271
 Hainantoxin-i, (555) 616
 Hairpin DNA duplex, (547) 115
 Haloperidol, (552) 155
 Hayflick limit, (541) 6
 HDAC inhibitor, (554) 347
 H/D exchange matrix-assisted laser desorption/ionization-time of flight mass spectrometry, (550) 18
 Hdm2, (554) 73
 Head patterning, (538) 183
 Heart, (547) 51; (552) 259; (553) 141; (554) 511
 Heart failure, (546) 349
 Heart ischemia, (541) 1
 Heat shock, (537) 139
 Heat shock factor, (546) 315
 Heat shock protein, (538) 19; (548) 17; (549) 57; (555) 539
 Heat shock protein 16, (537) 139
 Heat shock protein 27, (546) 307; (551) 113
 Heat shock protein 60, (533) 105
 Heat shock protein 70, (546) 315
 Heavy chain variable domain, (554) 323
 Heavy metal, (541) 11
 Heavy metal stress, (553) 370; (553) 427
 Heavy metal tolerance, (542) 159
 HECT domain, (539) 78
 HeLa cell, (551) 20
 α -Helical peptide, (551) 13
Helicobacter pylori, (543) 184; (555) 170
Helicoverpa armigera, (537) 106
Heliothis virescens, (537) 106
 α -Helix, (537) 121; (555) 134
 β -Helix, (554) 462
 Helix-turn-helix motif, (545) 183
 β -Hematin, (554) 247
 Hematin aggregation, (547) 217
 Hematopoiesis, (544) 176
 Hematopoietic progenitor cell, (550) 155
 Heme-based sensor, (552) 99
 Heme oxygenase, (541) 85
 Heme oxygenase-1, (546) 181; (546) 223
 Hemoglobin, (535) 175
 α -Hemolysin, (535) 71; (552) 54
 γ -Hemolysin, (552) 54
 Hemolysis, (554) 100
 Hemozoin, (554) 247
 Heparin, (541) 121
 Heparin-binding, (537) 6
 Heparin cofactor II, (541) 121
 Hepatitis A virus, (540) 133
 Hepatitis B virus, (543) 51; (549) 157
 Hepatitis B virus core protein, (549) 157
 Hepatitis B virus X protein, (545) 203; (553) 304
 Hepatitis C virus, (535) 34; (546) 385; (554) 289; (555) 528
 Hepatocellular carcinoma, (555) 583
 Hepatocyte, (534) 101; (553) 433
 Hepatocyte nuclear factor 4 α , (539) 19
 Hepatocyte nuclear factor 4 α isoform, (539) 19
 Hepatogenesis, (538) 125
 Hepatoma, (537) 193
 Hepcidin, (542) 22
 Hepoxilin A₃ synthase, (538) 107
 Hepoxilins, (538) 107
 Herbicide tolerance, (550) 179
 HERC1, (539) 78
 Herp, (553) 151
 Herpes simplex virus, (545) 213
 Hes1, (535) 131
 Heterodimer, (543) 120
 Heterodimerization, (550) 30
 Heterodisulfide reductase, (538) 81
 Heterogeneous ribonuclear protein A2/B1, (555) 478
 Heterologous reporter gene, (535) 147
 Heterotrimeric GTP-binding protein, (555) 329
 Heterotrimeric guanine nucleotide binding protein, (540) 211
 Hidden Markov model, (542) 125
 High-content screening microscopy, (554) 394
 High-density lipoprotein-cholesterol, (545) 103
 High-fat diet, (555) 631
 High glucose, (545) 219
 High potential iron-sulfur protein, (550) 18
 High temperature, (553) 68
 High-throughput pipeline, (554) 257
 High-throughput screening, (540) 147
 Hindlimb suspension, (553) 63
 Hippocampal neuron, (543) 170
 Hippocampus, (535) 183
 Histidine, (552) 35; (553) 135
 Histidine kinase, (537) 101
 Histidine residue, (554) 41
 Histidine tautomer, (534) 197
 Histone acetyltransferase, (536) 66
 Histone chaperone, (555) 521
 Histone deacetylase, (540) 255; (542) 74
 HIV-1, (535) 195; (552) 39
 HIV-1 protease, (533) 89
 HIV infection, (552) 247
 HL60, (534) 175; (540) 245
 HL-60 cell, (555) 204
 HMB-PP, (544) 4
 HMG-5, (554) 455
 HMGB1, (553) 11
 HNF4, (539) 19
 HO-1, (543) 113
 HOCl, (540) 245
 Homing endonuclease, (544) 165
 Homocysteine, (541) 145
 Homodimer, (551) 71
 Homodimerization, (550) 30
 Homologous recombination, (537) 1; (537) 182; (546) 203; (553) 213
 Homology, (539) 7
 Homology modeling, (539) 161; (545) 224; (545) 253; (554) 231; (554) 257; (555) 405
 Honeybee, (535) 61
 Hormonal regulation, (535) 125
 Hormone, (552) 155
 Hormone receptor, (538) 173
 Hormone release, (547) 189
 Horseradish peroxidase, (553) 377
 HPLC, (544) 210
 H^+ pump, (535) 119
 HrcA, (549) 57
 Hrp effector, (537) 198
 Hsc70, (555) 390
 HslVU, (553) 351
 Hsp105 α , (555) 390
 Hsp105 β , (555) 390
 Hsp27, (545) 213
 Hsp70, (533) 119
 HSP90, (536) 180
 Hsp90, (552) 125
 HT-29 cell, (544) 123; (551) 92
 hTERT, (540) 91
 hTR, (536) 111
 Human, (553) 360
 Human β -defensin-2, (546) 233
 Human cytomegalovirus, (555) 322
 Human disease, (555) 72
 Human erythrocyte, (534) 185
 Human *ether-a-go-go* related gene, (534) 125; (535) 125; (539) 138; (547) 20
 Human genome, (554) 381; (555) 579
 Human homologue of ariadne, (554) 501
 Human immunodeficiency virus, (548) 37; (553) 200
 Human immunodeficiency virus coreceptor, (546) 300
 Human immunodeficiency virus type 1 transcription, (543) 61
 Human intestinal microvascular endothelial cell, (554) 88
 Human mitochondrion, (534) 139

Human papillomavirus, (536) 120
 Human plasma, (537) 166
 Human proliferating cell nuclear antigen, (544) 112
 Human prostate secretory protein of 94 amino acids, (541) 80
 Human retinal gene 4, (534) 26
 Human ribosome, (548) 97
 Human salivary α -amylase, (544) 194
 Human skeletal muscle cells, (536) 198
 Human T-cell leukemia virus type 1, (539) 73
 Huntington's disease, (549) 21
 Hyaluronan, (539) 45
 Hybrid mesh, (542) 95
 Hydration, (554) 351
 Hydrogen bond, (533) 1; (536) 187; (552) 35; (552) 231; (554) 389
 Hydrogen ion, (555) 45
 Hydrogenase, (545) 9
 Hydroperoxide, (554) 149
 Hydroperoxide lyase, CYP74B, (549) 31
 Hydrophobic, (554) 100
 Hydrophobic collapse, (536) 187
 Hydrophobic mismatch, (555) 134
 Hydrophobic platform, (538) 1
 Hydrophobized polysaccharide, (553) 271
 4-Hydroxybenzylidene-1,2-dimethylimidazolinone, (549) 35
 3-Hydroxychromone, (538) 25
 Hydroxyeicosatetraenoic acid, (554) 127
 Hydroxylase, (543) 174
 (*E*)-4-Hydroxy-3-methylbut-2-enyl diphosphate, (541) 115
 4-Hydroxynonenal, (551) 104
 4-Hydroxyphenylpyruvate dioxygenase, (540) 35
 4-Hydroxy-2,5,6-triaminopyrimidine, (555) 601
 Hydroxyurea, (555) 500
 Hyperglycemia, (554) 138
 Hypertension, (542) 27; (555) 597
 Hyperthermophile, (543) 47; (550) 69
 Hypolipidemic drugs, (536) 145
 Hypothalamus, (543) 66; (552) 105
 Hypothesis, (545) 97
 Hypotonic, (538) 101
 Hypoxanthine, (540) 171
 Hypoxia, (535) 106; (543) 170; (549) 94; (553) 157; (554) 264
 Hypoxia-inducible factor, (554) 264
 Hypoxia inducible factor-1, (549) 99
 Hypoxic stress, (553) 370; (553) 427
 Hypusination, (555) 464

I

IAPP, (539) 149
 ICAM-1, (550) 89
 ICK motif, (555) 616
 Id2, (551) 123
 IgA Fc receptor, (535) 205
 IgE receptor, (540) 111
 IGF-1, (536) 130
 IGF-2, (536) 130
 IGFBP-1, (549) 72
 Igk, (536) 125
 IkB- α , (552) 141
 I_{Kr} , (547) 20
 IL-1 signalling, (547) 157
 IL-4, (549) 110
 Ileal bile acid-binding protein, (553) 299
 Image analysis, (546) 87
 Imatinib, (535) 17
 Immature amyloid precursor protein, (547) 193
 Immediate-early gene induction, (546) 51
 Immediate-early protein, (555) 322
 Immunoassay, (536) 61; (537) 166
 Immunocytochemistry, (534) 125; (551) 128
 Immunogold electron microscopy, (547) 189
 Immunogold labelling, (555) 638

Immunolabeling, (546) 355
 Immunomodulation, (540) 7
 Immunostimulating peptide, (540) 206
 Immunotoxin, (541) 16
 IMMUTANS, (555) 425
 Import pathway, (547) 125
 Inactive branch, (540) 234
 Inclusion body, (537) 53; (537) 215; (553) 271
 Individuality, (550) 135
 Induced chirality, (539) 85
 Inducible expression, (555) 489
 Infection, (536) 167; (544) 262; (552) 110
 Inflammation, (536) 135; (538) 173; (545) 161; (546) 37; (546) 237; (548) 125; (553) 11; (554) 520; (555) 180; (555) 236
 Influenza A virus M2 ion channel, (552) 23
 Influenza hemagglutinin, (555) 139
 Influenza M2, (552) 17
 Influenza virus, (543) 71; (552) 61; (553) 355
 Infrared spectroscopy, (533) 47
 ING1, (553) 277
 Inhibition, (547) 7; (552) 219
 Inhibitor, (553) 51; (553) 355
 Inhibitor-2, (554) 253
 Initiation factor eIF2B, (543) 81
 Initiator-dependent flanking element, (540) 58
 Innate immune, (550) 124
 Innate immunity, (533) 105; (535) 195; (545) 199; (546) 233
 iNOS, (544) 171
 Inosine, (554) 473
 Inositol 1,4,5-triphosphate, (555) 411
 Inositol 1,4,5-triphosphate receptor, (555) 411
 Inositol 1,4,5-trisphosphate, (534) 101
 Inositol phosphate, (546) 325
 Insect control, (540) 81
 Insect sodium channel, (540) 81
 Insecticide, (547) 43
 Insertion mutation, (555) 483
 In situ hybridization, (553) 141
 Insoluble protein, (545) 229
 InsP₃ 3-kinase, (534) 101
 InsP₃ 5-phosphatase, (534) 101
 InsP₃ oscillation, (534) 101
 Insulin, (536) 198; (542) 65; (546) 32; (549) 72; (555) 307
 Insulin action, (544) 185
 Insulin-like growth factor, (541) 149
 Insulin like growth factor-I, (544) 214
 Insulin-like growth factor II, (545) 203
 Insulin-like growth factor-1, (554) 77
 Insulin-like growth factor-I receptor, (541) 149
 Insulin receptor signalling, (544) 185
 Insulin receptor substrate, (553) 63
 Insulin receptor substrate-2, (536) 161
 Insulin resistance, (534) 54; (542) 65; (553) 63
 Insulin secretion, (537) 193; (545) 167
 Insulin signaling, (541) 109; (546) 154
 Integral membrane protein, (555) 116
 Integrin, (534) 11; (553) 433
 Integrin $\alpha_2\beta_1$, (542) 53
 $\alpha_2\beta_1$ Integrin, (549) 129
 β_3 Integrin, (540) 41
 Interaction, (540) 77
 Interaction propensity, (552) 231
 Interactor, (534) 26
 Intercellular adhesion molecule-1, (539) 45
 Interdomain communication, (539) 100
 Interfacial anchoring, (555) 134
 Interfacial hydrophobicity, (533) 47
 Interferon, (540) 223; (545) 177; (553) 245
 Interferon alpha, (553) 304
 Interferon- γ , (534) 190; (546) 1; (555) 385
 Interferon responsive element, (539) 73
 Interleukin-1, (545) 199; (553) 190; (555) 236; (555) 431
 Interleukin-1 receptor-associated kinase, (548) 103
 Interleukin-4, (550) 139
 Interleukin-6, (538) 113; (541) 33; (546) 1
 Interleukin-6 receptor, (536) 25
 Interleukin-13, (550) 139; (554) 489
 Interleukin-13 receptor- $\alpha 1$ binding protein-1, (550) 139

Intermediate, (538) 89; (540) 251
 Intermediate filament, (547) 228
 Internalization, (533) 35
 Intestine, (536) 12; (549) 115
 Intracardiac ganglia, (554) 219
 Intracellular distribution, (544) 153
 Intracellular membrane receptor, (553) 309
 Intracellular signalling, (543) 129
 Intracellular transport, (544) 57
 Intramolecular binding, (552) 160
 Intramolecular interaction, (554) 389
 Intra-myocellular triglyceride, (551) 104
 Intrinsic fluorescence spectroscopy, (537) 171
 Intron homing, (544) 165
 Intron splicing, (555) 516
 Inulosucrase, (534) 207
 Invasin, (533) 35
 Inverse agonist, (536) 157
 Inverse sequence similarity, (545) 105
 Inverted membrane vesicle, (550) 114
 In vitro, (539) 24
 In vitro coupled transcription/translation, (540) 147
 In vitro expansion, (550) 155
 In vitro selection, (548) 85
 Inwardly rectifying potassium channel, (552) 259
 Ion channel, (545) 86; (547) 43; (552) 35; (552) 47; (553) 321; (555) 57; (555) 85; (555) 91
 Ion pump, (555) 106
 Ion selectivity, (552) 54; (555) 62
 Ion translocation, (545) 18
 Ion transport, (546) 257; (548) 53
 iPLA₂γ, (546) 247
Ipomoea batatas, (536) 101
 IPP, (544) 4
 IRAK, (547) 157
 IRF-1, (544) 171
 Iron, (553) 179
 Iron deficiency, (533) 59
 Iron metabolism, (537) 187; (551) 58
 Iron overload, (542) 22
 Iron regulatory protein, (537) 187
 Iron repletion, (533) 59
 Iron–sulfur protein, (538) 81; (539) 95; (547) 80
 Iron trafficking, (553) 391
 IRS, (546) 32
 IRS-1, (535) 17
 IS30 transposase, (550) 46
 Ischemia, (536) 51; (536) 85; (543) 170; (555) 478
 Ischemic preconditioning, (555) 302; (555) 539
 IscS, (548) 90
isiAB, (549) 52
 3-Isobutyl-1-methylxanthine, (542) 105
Isochrysis galbana, (547) 137
 Isoenzyme, (551) 63
 Isoform, (537) 203; (555) 572
 Isomaltulose, (534) 151
 Isomaltulose synthase, (534) 151
 Isopentenyl diphosphate, (541) 115
 Isopentenyl transferase, (554) 373
 Isoprenoid, (541) 115
 Isoproterenol, (542) 105
 Isotope labeling, (555) 144

J

Janus kinase, (534) 190
 Janus kinase/signal transducer and activator of transcription signalling, (546) 1
 Jasmonic acid, (543) 136; (553) 370
 Jellyfish tentacle, (538) 183
 JNK/SAPK1, (543) 129
 Jun kinase, (538) 41

Jun N-terminal kinase, (540) 223; (553) 403
 Junctophilin, (542) 69
 Junk proteins, (554) 237

K

K562 cell, (541) 21
 K562 cells, (535) 17
 K⁺ channel, (535) 125; (552) 2; (552) 12; (554) 119; (555) 62
 K⁺ channel regulating protein, (539) 156
 K⁺ ion channel, (539) 138
 Kcv, (552) 2; (552) 12
 Keratinocyte, (540) 125
 Keratinocyte growth factor receptor, (553) 262
 Kernel Fisher's discriminant analysis, (551) 3
 α-Ketoglutarate, (555) 170
 Kettin, (535) 55
 Kidney, (546) 276; (551) 58
 kin1, (554) 45
kin-22, (534) 133
 p110γ PI-3 kinase, (540) 65
 Kinase activation, (552) 160
 Kinase activity, (553) 347
 Kinase inhibitor, (537) 47
 Kinetic cooperativity, (544) 143
 Kinetic property, (544) 206
 Kinetic simulation, (551) 37
 Kinetics, (540) 96
 KLF11, (548) 108
 KLF protein, (548) 108
 KMnO₄ probing, (552) 199
 Knockout mouse, (542) 53; (555) 192
 Kruppel-associated box domain, (534) 93
 K-type allosteric system, (551) 63
 Kunitz/BPTI homolog, (547) 131
 Kv1.5, (547) 205

L

lac operon, (553) 397
 Lactacystin, (542) 89
Lactobacillus reuteri, (534) 207
 Lactoferrin, (548) 5
 β-Lactoglobulin, (539) 85; (553) 39
 LAGLIDADG family, (544) 165
 LA-N-1 nucleus, (541) 93
 Large intestine, (540) 157
 Large unilamellar vesicle, (555) 545
 Laser-tweezers, (535) 55
 Lassa virus, (538) 203
 LATS, (546) 73
 Lauryl sulfate, (549) 39
 Lck, (535) 82
 Leaderless secretory protein, (551) 78
 Leakage, (555) 545
 Lectin, (534) 106; (555) 297
 Leech, (533) 124
 Lef-1, (547) 1
 Left-handed 3₁ helix, (555) 371
 Left ventricular hypertrophy, (548) 79
 Legume, (534) 106; (554) 271
Leishmania, (542) 12
 Leishmania, (552) 110
 Leloir pathway, (543) 21
 Lembehynne A, (544) 223
 Lens, (547) 228

Leptin, (546) 45
 Leptin receptor, (546) 45
 Lethal factor, (550) 175
 Leucine-rich repeat, (539) 2; (554) 520
 Leucine-rich repeat domain, (555) 533
 Leucine zipper, (545) 183
 Leukemia cell, (547) 27
 Leukocyte-type 12(S)-lipoxygenase, (538) 107
 Leukotriene B₄ ω -hydroxylase, (555) 236
 Lewis^x antigen, (554) 330
 Leydig cell, (543) 140
LIL1, (555) 464
 Life span, (534) 111
 Lifetime, (550) 175
 Ligand, (538) 1; (555) 495
 Ligand binding, (533) 29; (537) 171; (538) 25; (554) 95
 Ligand degradation, (555) 346
 Ligand-gated channel, (552) 2
 Light/dark response, (554) 357
 Light-harvesting, (545) 97; (555) 35
 Light-harvesting complex, (533) 59; (546) 345
 Light-harvesting complex I, (547) 107
 LIM, (533) 124
 Linkage, (547) 7
 N-Linked β (1,6) branch, (554) 515
 N-Linked glycosylation, (552) 170
 γ -Linolenic acid, (542) 100
 Lipid, (553) 295
 Lipid A, (543) 98
 Lipid affinity, (554) 165
 Lipid bilayer, (541) 28; (552) 47
 Lipid bilayer membrane, (552) 253
 Lipid–detergent interaction, (555) 160
 Lipid metabolism, (545) 103
 Lipid peroxidation, (551) 104
 Lipid phase, (544) 69
 Lipid phase transition, (551) 13
 Lipid phosphate phosphatase, (552) 240
 Lipid raft, (534) 164; (534) 169; (540) 217; (555) 223
 Lipid storage disease, (542) 1
 Lipid transfer protein, (534) 82
 Lipidic cubic phase, (555) 51
 Lipocalin, (539) 85; (544) 189
 Lipocalin superfamily, (553) 39
 Lipoperoxidation, (550) 185
 Lipopolysaccharide, (535) 11; (544) 214; (553) 99; (553) 286; (553) 413; (555) 236
 Lipoprotein, (546) 335
 Lipoprotein-associated phospholipase A₂, (553) 145
 Lipoprotein lipase, (536) 232
 Liposome, (540) 133; (542) 132
 Lipotoxicity, (555) 631
 Liquid-crystalline state, (533) 21
 Liquid state, (533) 21
 Lisinopril, (538) 65
 Lithium, (538) 145; (542) 74
 Live cell imaging, (546) 87
 Liver, (537) 151; (541) 75; (541) 85; (544) 176; (546) 127; (551) 159
 Liver-enriched inhibitory protein, (541) 33
 Liver mitochondrion, (553) 157
 Liver primordia, (538) 125
 Liver specific expression, (555) 528
 Liver steatosis, (546) 335
 Liver transcription, (539) 19
 Liver X receptor, (553) 299; (536) 6
 LNCaP cells, (555) 561
 Localization, (550) 35
 Long-chain base, (538) 192
 Long-chain fatty acyl-coenzyme A, (552) 253
 Loop-sheet polymerization, (537) 11
 LoVo cell, (554) 275
 Low affinity cholecystokinin receptor, (538) 134
 Low-complexity sequences, (554) 237
 Low-density lipoprotein receptor, (546) 335
 Low-density lipoprotein receptor-related protein, (555) 346
 Lowe syndrome, (546) 25
 Low-intensity pulsed ultrasound, (554) 154
 Low-pH stability, (543) 71

LPS, (549) 87
 Luciferase, (549) 77
 Luciferin, (540) 251; (543) 37
 Lucigenin, (549) 83
 Luminol, (549) 83
 Lung cancer, (540) 167
Lupinus albus, (534) 106
 Lupus, (553) 245
 Lux, (546) 391
 Lycopene β -cyclase, (545) 120
Lycopersicon esculentum, (550) 149
 Lymphatic, (540) 241
 Lysenin, (542) 1
 Lysenin–membrane interaction, (542) 1
 Lysine side chain, (544) 69
 Lysophosphatidic acid, (534) 164
 Lysophosphatidylcholine, (555) 257
 Lysophospholipase D, (538) 60
 Lysophospholipid, (553) 113
 Lysosome, (537) 79; (554) 133
 LytB, (541) 115; (544) 4

M

M2-type pyruvate kinase, (539) 78
 Machado–Joseph disease, (546) 307
 Macromolecular tRNA synthetase complex, (542) 119
 Macrophage, (536) 6; (539) 56; (540) 241; (550) 190; (553) 286; (555) 385
 Macrophage inflammatory protein-related protein-2, (548) 125
 Macrophage migration inhibitory factor, (553) 11
 Macrophage receptor, (533) 105
 Mad1, (548) 108
 Magic angle spinning, (553) 73
 Major histocompatibility complex, (543) 11
 Major histocompatibility complex class I, (553) 200
 Major histocompatibility complex class II, (546) 379
 Malaria, (552) 141; (554) 247; (554) 284
 Malate dehydrogenase, (553) 423
 MALDI-TOF-MS, (552) 170
 Male fertility, (549) 171
 Male gamete, (542) 47
 Maltooligosaccharide, (544) 194
 Maltose-binding protein, (537) 53
 Maltose permease, (544) 160
 Mammalian ortholog, (538) 173
 Mammalian target of rapamycin, (550) 51
 Mammary gland, (551) 123
 MAP65, (534) 161
 MAPK p38, (546) 37
 MAPKAPK-2, (546) 37
 MAP kinase, (554) 271
 Marine bacterium, (545) 120
 Mass isotopomer analysis, (554) 342
 Mass spectrometry, (535) 175; (537) 68; (537) 166; (538) 155; (542) 137; (544) 210; (552) 135; (553) 209; (555) 263
 Massively parallel signature sequencing, (554) 373
 Mast cell, (540) 111
 Mast cell apoptosis, (549) 87
 Matrix-assisted laser desorption ionization, (534) 93
 Matrix-assisted laser desorption-ionization mass spectrometry, (535) 11
 Matrix-assisted laser desorption/ionization time-of-flight mass spectrometry, (536) 130; (544) 45
 Matrix metalloproteinase, (537) 91; (555) 419
 Matrix metalloproteinase-1, (553) 104
 Matrix metalloproteinase-2, (553) 457
 Mature amyloid precursor protein, (547) 193
 MBP, (537) 53
 MCM7, (553) 213
 MDA-MB-231 cell line, (548) 43
 MDCK, (538) 85

- MDCK cell, (552) 240
Mdm2, (536) 220
MDM2, (544) 218
Mdm2 phosphorylation, (555) 302
MDR1, (545) 144
MD simulation, (553) 321
Mdx, (552) 145
Measles virus, (545) 177
Mechanical stress, (535) 87; (538) 101
Mechanical stretch, (537) 117
Mechanism, (545) 9; (545) 76; (549) 31; (555) 13
Mechanosensitive channel, (555) 111
Medaka fish, (536) 12
Medium chain triacylglycerol, (555) 631
Medulloblastoma, (533) 110
Megakaryocytic differentiation, (541) 21
Meiosis, (537) 1
Melanin-concentrating hormone, (533) 29
Melanocortin, (543) 66
 α -Melanocyte stimulating hormone, (553) 286
Melanoma, (553) 250
Melanoma cell, (554) 179
Meliodosis, (542) 17
Melittin, (554) 100
Melusin, (551) 47
Membrane, (536) 167; (544) 63; (548) 119
Membrane association, (549) 135
Membrane binding, (546) 359
Membrane binding site, (544) 21
Membrane-bound phosphatase, (535) 141
Membrane cytoskeleton, (554) 30
Membrane depolarization, (552) 7
Membrane fission, (554) 194
Membrane fluidity, (550) 185; (553) 295
Membrane fusion, (535) 23; (536) 56; (550) 144
Membrane lipid, (537) 128
Membrane lysis, (546) 271
Membrane permeability, (552) 28
Membrane permeabilization, (552) 68
Membrane pore, (552) 28
Membrane potential, (538) 53; (541) 75; (554) 315; (555) 57
Membrane protein, (533) 42; (536) 237; (544) 50; (544) 69; (545) 18; (547) 97; (553) 45; (553) 321; (555) 8; (555) 21; (555) 51; (555) 66; (555) 102; (555) 122; (555) 139
Membrane protein complex, (555) 13
Membrane protein extraction, (555) 126
Membrane protein solubilization, (555) 160
Membrane protein structure, (555) 96; (555) 111; (555) 144
Membrane ruffle, (536) 71
Membrane-spanning domain, (541) 40
Membrane surface charge, (541) 132
Membrane topology, (546) 241
Membrane traffic, (550) 1; (554) 394
Membrane trafficking, (546) 257
Membrane translocation, (540) 211
Membrane transport, (534) 15
Membrane transport protein, (555) 170
Membrane-type-1 matrix metalloproteinase, (553) 457
Membrane water channel, (555) 72
Menaquinone, (543) 1
MEP, (544) 4
Mesangial cell, (551) 113
Mesophilic and (hyper)thermophilic *Methanococcus*, (549) 123
Metabolic pathway, (555) 505
Metabolism, (535) 136; (544) 123; (552) 105
Metabolomics, (554) 342
Metabotropic glutamate receptor, (545) 233
Metal activation, (545) 224
Metal-binding site, (535) 200
Metalloenzyme, (555) 317
Metalloid oxyanion, (554) 315
Metalloprotease, (536) 25; (553) 257
Metallothionein, (536) 35; (542) 159
(R)-methanandamide, (555) 561
Methanocaldococcus jannaschii, (543) 31
Methanococcus jannaschii, (542) 32
Methanopyrus kandleri, (543) 47
Methanosarcina barkeri, (538) 81
Methanosarcina mazei Gö1, (544) 206
Methanothermobacter marburgensis, (538) 81
Methicillin-resistant *Staphylococcus aureus*, (546) 401
Methionine sulfoxide, (547) 87
Methionine sulfoxide reductase, (547) 87
2-Methoxyestradiol, (538) 41
Methyl- β -cyclodextrin, (550) 101
2-C-Methyl-D-erythritol 4-phosphate pathway, (541) 115
N-Methyl-D-aspartic acid, (552) 193
N8-(4-N'-Methylantraniloylaminobutyl)-8-aminoadenosine 5'-triphosphate, (539) 100
Methylglyoxal, (551) 113; (554) 284
Methylotrophic yeast, (549) 1
5-Methyltetrahydrofolate, (555) 601
N-Methyltransferase, (534) 75; (547) 56
7-Methylxanthine, (534) 75
7-Methylxanthosine, (547) 56
Meuronal calcium sensor, (547) 189
Micelle, (541) 132; (544) 50
Microarray, (533) 110; (538) 207; (540) 167; (546) 98; (547) 51; (550) 11; (555) 358
Microarray data display, (538) 117
Microfluorimetry, (538) 71
Microsatellite, (554) 17
Microscopic observation, (534) 33
 β -Microseminoprotein, (541) 80
Microtubule, (533) 35; (544) 262
Microtubule-associated protein, (539) 34
Microtubule-associated protein/microtubule affinity-regulating kinase, (554) 45
Microtubule interacting protein that associates with tumor necrosis factor receptor associating factor-3, (550) 139
Microwave radiation, (543) 93
Midpoint potential, (555) 606
MIF, (551) 78
Migration, (533) 25; (544) 262; (553) 56
Misfolding disease, (551) 107
 δ -Missulenatoxin, (554) 211
Mitochondria, (544) 148
Mitochondrial anion carrier gene family, (534) 15
Mitochondrial ATPase, (551) 42
Mitochondrial carrier, (534) 15
Mitochondrial carrier family, (534) 87
Mitochondrial DNA, (534) 39; (553) 205; (554) 6
Mitochondrial DNA depletion, (554) 319
Mitochondrial dynamics, (554) 194
Mitochondrial efficiency, (543) 5; (544) 133
Mitochondrial energetics, (544) 138
Mitochondrial fusion, (538) 53
Mitochondrial genome, (555) 469
Mitochondrial import, (547) 125
Mitochondrial mismatch repair, (554) 6
Mitochondrial respiration, (553) 73
Mitochondrial targeting, (553) 245
Mitochondrion, (534) 61; (540) 141; (541) 1; (541) 57; (541) 75; (543) 5; (544) 153; (545) 9; (545) 110; (545) 167; (546) 355; (546) 369; (547) 92; (549) 94; (549) 135; (550) 163; (550) 185; (552) 259; (553) 163; (553) 167; (553) 205; (553) 309; (554) 511; (555) 511; (555) 631
Mitogen-activated protein kinase, (541) 21; (542) 109; (545) 173; (546) 51; (547) 223; (548) 59; (554) 399
Mitogen-activated protein kinase kinase 4, (539) 29
Mitogen- and stress-activated protein kinase, (546) 51
Mitotic checkpoint, (545) 209
Mixed lineage leukemia fusion, (554) 10
Mixed protein-detergent micelle, (555) 144
Mj0968, (543) 31
Mobile intron, (544) 165
Model membrane, (547) 101
3D modeling, (550) 149
Modified oligonucleotide, (538) 48
Modulation, (547) 37
Molecular diversity, (555) 483
Molecular dynamics, (544) 21; (554) 159; (555) 85
Molecular evolution, (533) 72
Molecular interaction, (554) 169
Molecular mechanism, (543) 71
Molecular model, (553) 321
Molecular motor, (545) 61; (545) 86

Molecular phylogeny, (555) 425
 Molecular recognition, (539) 85; (548) 11
 Molecular simulation, (535) 29; (550) 168
 Molecular stability, (547) 170
 Molten globule state, (534) 7
 Molybdenum, (534) 143; (555) 606
 Mono Mac6, (555) 257
 Monocyte, (538) 149; (539) 143; (553) 135
 Monocyte adhesion, (553) 419
 Monocyte chemotactic protein, (544) 252
 Monocyte-macrophage (human), (553) 145
 Monocytic differentiation, (555) 204
 Monovalent cation, (544) 268
 Morphant, (538) 125
 Morphogenesis, (546) 73
 Morpholino, (538) 125
 Mosaic particles, (549) 157
 Motif, (534) 151
 Motilin, (545) 139
 Mouse, (535) 183; (540) 151; (543) 140; (553) 141; (555) 533
 Mouse brain, (538) 163
 Mouse development, (544) 176
mPer1, (542) 109
mPer2, (542) 109
mre-11, (555) 250
 mRNA, (536) 61; (546) 237
 mRNA analog, (548) 97
 mRNA degradation, (547) 97
 mRNA stability, (546) 37; (546) 329
 mRNA translation, (543) 81
 α -MSH, (549) 87
 MtDNA repair, (554) 6
 mTOR, (549) 72; (550) 94
 Mucin, (553) 33; (554) 330; (555) 209
 Mucosal defense, (540) 21
 MukB, (548) 90
 Multicolor microscopy, (546) 87
 Multicopper oxidase, (554) 422
 Multicopy suppression, (554) 295
 Multidrug resistance, (548) 28; (555) 66; (555) 102
 Multidrug resistance-associated protein, (554) 23
 Multidrug resistance-associated protein 2, (536) 225
 Multidrug resistance-related protein 1, (548) 28
 Multienzyme complex, (555) 405
 Multigene family, (547) 131
 Multiple antigenic peptide, (540) 133
 Multiple sequence analysis, (554) 95
 Munc18, (550) 144
 Munc18c, (534) 54
 Musashi-1, (535) 131
 Muscle, (542) 84; (544) 214; (546) 127; (551) 104
 Muscle differentiation, (547) 15
 Muscle FBpase, (547) 11
 Mutagenesis, (533) 95; (540) 234; (544) 33; (549) 167; (552) 150
 Mutagenesis analysis, (545) 239
 Mutant p53, (546) 321
 Mutarotase, (543) 21
 Mutation, (551) 147; (554) 319
 Mutation bias, (555) 579
 Mutator strains, (546) 295
 Mutual information, (537) 121
 Mx promoter, (555) 489
Mycobacterium tuberculosis, (545) 253
 MyD88, (548) 103
 Myeloid, (534) 119
 Myeloid cell, (535) 205
 Myoblast, (545) 246; (547) 183
 Myoblast fusion, (546) 213
 Myocardial ischemia, (536) 35; (555) 302
 Myocardium, (555) 539
 Myogenic differentiation, (550) 23
 Myogenin, (547) 183
myo-Inositol, (553) 3
L-myo-Inositol 1-phosphate synthase, (553) 3
 Myosin regulatory light chain interacting protein, (553) 195
 Myotonic dystrophy, (546) 281
 Myotubular myopathy, (546) 25

N

Na⁺ channel, (547) 27
 Na⁺-dependent, (546) 276
 Na⁺/H⁺ antiporter, (542) 32
 Na⁺,K⁺-adenosine triphosphatase inhibitor, (541) 80
 Na⁺,K⁺-ATPase, (543) 108
 Na⁺/Mg²⁺ antiport, (543) 103
 Na,K-ATPase, (545) 173
 NACHT domain, (554) 520
 NAD binding, (553) 3
 NAD⁺/NADH, (537) 157
 NAD4L, (549) 7
 NADH, (547) 32
 NADH dehydrogenase, (549) 43
 NADH:quinone oxidoreductase, (549) 7; (549) 39
 NADPH oxidase, (540) 195; (550) 101; (554) 399
 NAD(P)H oxidase, (542) 27
 NADP-malate dehydrogenase, (543) 87
 Nafenopin-CoA, (536) 145
Naja sputatrix, (553) 333
 Nanogel, (553) 271
 Nanopore, (555) 85
 Nanosensor, (553) 85
 Nanotube, (534) 33
 Naphthoquinone analog, (555) 217
 Na-pump, (536) 198
 Natively unfolded proteins, (554) 237
 Natriuretic peptide, (536) 35
 ND4L, (549) 7
 NdhE, (549) 7
 N-domain, (550) 84
 NDR, (546) 73
 Nedd8, (541) 102
 Neddylation, (541) 102
 Nef, (548) 37
 Nef-associated factor-1, (551) 8
 Negative cooperativity, (550) 84
 Negative regulatory element, (534) 93
Neisseria, (554) 149
Neisseria gonorrhoeae, (546) 411
Neisseria meningitidis, (546) 411
 N-end rule, (555) 397
 Neopterin, (549) 83
 Network structure, (534) 33
 Neu/ErbB-2, (535) 39
 Neural cell differentiation, (537) 73
 Neural expression, (554) 410
 Neural network, (544) 236
 Neuraminidase, (536) 56; (543) 71; (553) 355
 Neurite outgrowth, (553) 195
 Neurite outgrowth factor, (554) 311
 Neuro 2A cell, (544) 223
 Neuroblastoma, (548) 28
 Neurodegeneration, (538) 207
 Neuroleptic, (552) 155
 Neuron, (534) 33; (539) 149; (546) 228
 Neuronal ceroid lipofuscinosis, (538) 207; (555) 351
 Neuronal differentiation, (544) 223
 Neuroprotection, (542) 74
 Neurosecretion, (544) 57
 Neurotoxicity, (546) 228
 Neurotoxin, (555) 616
 α -Neurotoxin, (553) 333
 Neurotransmitters, (552) 155
 Neutron diffraction, (548) 119
 Neutrophil, (536) 241; (537) 111; (549) 83; (550) 101; (553) 360
 Neutrophil elastase, (544) 129; (546) 233
 Neutrophils, (550) 94
 NF023, (533) 54
 NF-E2-related factor 2, (546) 181
 NF κ B, (545) 246
 NF- κ B, (549) 87; (552) 141; (553) 33
 NF- κ B/Rel, (550) 89

NF- κ B transcription factor, (536) 241
 NF-Y, (536) 111; (537) 58
 NHERF-1, (536) 141
 Nicotinamide adenine dinucleotide phosphate oxidase, (546) 173
 Nicotinamide nucleotide, (545) 18
 Nicotinic acetylcholine receptor, (553) 333
 $\alpha 7$ Nicotinic acetylcholine receptor, (554) 219
 Niemann–Pick type C disease, (537) 177
 [NiFe] hydrogenase, (549) 141
 Nifedipine derivative, (552) 155
 NIH3T3, (542) 109
Nitella, (546) 209
 Nitrate reductase, (534) 143
 Nitrate respiration, (545) 25
 Nitration, (542) 147
 Nitric oxide, (535) 106; (543) 113; (544) 171; (545) 219; (546) 223; (549) 99; (550) 64; (552) 125; (552) 141; (553) 56; (553) 377; (555) 567
 Nitric oxide signaling, (554) 1
 Nitric oxide synthase, (540) 181; (552) 141; (554) 1
 Nitrile hydratase, (553) 391
 Nitrile hydratase activator, (553) 391
 Nitrite, (550) 64; (553) 377
 Nitrogen assimilation genes, (543) 42
 Nitrogen control, (543) 42
 Nitrogen limitation, (549) 1
p-Nitrophenyl phosphate hydrolysis, (543) 31
p-nitrophenylphosphate, (536) 41
 Nitrosative stress, (543) 113
 Nitrosonium cation, (543) 113
 Nitroxyl, (543) 113
 NK cell, (552) 115
 NK-1 receptor, (544) 45
 NK-92, (552) 115
 NMR, (548) 1; (552) 207
 NMR structure, (539) 138
 NMR, *trans*-Golgi network, (555) 437
 N-myc downstream regulated gene 2, (553) 413
 Nod26-like protein, (547) 69
 Nodal signaling, (543) 190
 Noise strength, (550) 135
 Nomenclature, (545) 97
 Nonclassical secretion, (551) 78
 Non-heme iron, (535) 159
 Non-photochemical quenching, (543) 159
 Nonsense mRNA, (537) 193
 Non-specific DNA binding protein, (542) 17
 Non-thermal, (543) 93
 Northern blot, (553) 413
 Notochord, (543) 190
 Novel covalent bonds, (552) 135
Novosphingobium aromaticivorans, (552) 189
 NPP, (538) 60
 NPY, (552) 105
 NQO1, (549) 7
 NS3, (554) 485
 NS5A protein, (555) 528
 Nuclear export signal, (553) 315
 Nuclear factor for IL-6 expression, (541) 33
 Nuclear factor kappa B, (553) 304
 Nuclear factor- κ B, (536) 135; (539) 73; (541) 155; (547) 75; (547) 115; (548) 103; (553) 21; (553) 403
 Nuclear import, (553) 315
 Nuclear localization, (554) 111
 Nuclear localization sequence, (553) 315
 Nuclear localization signal, (537) 203
 Nuclear magnetic resonance, (535) 11; (535) 94; (539) 125; (541) 80; (542) 119; (544) 50; (545) 139; (545) 167; (548) 11; (550) 18; (553) 232; (554) 253; (555) 139; (555) 371
¹H Nuclear magnetic resonance, (542) 153
²H Nuclear magnetic resonance, (547) 101
 Nuclear magnetic resonance spectroscopy, (544) 123
 Nuclear magnetic resonance spin relaxation, (553) 95
 Nuclear magnetic resonance structure, (535) 39
 Nuclear matrix, (547) 119
 Nuclear organization, (536) 125
 Nuclear receptor, (536) 6; (553) 299
 Nuclear receptor CAR, (548) 17

Nuclear transcription factor κ B, (553) 286
 Nuclear translocation, (546) 218; (548) 17; (550) 35
 Nuclear tyrosine phosphatase, (534) 190
 Nucleic acid, (542) 153
 Nucleocytoplasmic shuttling, (553) 315; (554) 143
 Nucleofection, (538) 149
 Nucleoplasm, (555) 411
 Nucleoside diphosphate kinase, (555) 363
 Nucleosome packing, (554) 369
 Nucleotide excision repair, (535) 153
 Nucleotide pyrophosphatase/phosphodiesterase, (538) 60
 Nucleus, (539) 51; (543) 144; (550) 35; (555) 411
 Nutrient sensing, (546) 154
 Nutrient uptake, (542) 37
 Nutrigenomics, (550) 190
 Nutrition, (544) 252

O

Obesity, (544) 138; (548) 21; (548) 125; (551) 104
 O-chain, (535) 11
 Octanol-1/water partitioning coefficient, (554) 165
 Oculopharyngeal muscular dystrophy, (555) 380
 Oedema, (545) 161
 Oligoadenylate synthase, (536) 35
 2',5'-Oligoadenylate synthetase, (539) 73
 Oligomerization, (552) 54; (553) 423
 OmpA, (555) 139
 OmpF, (545) 127
 OmpR, (538) 77
 OmpR sub-families, (554) 231
 Oocyte, (555) 533
 Oogenesis, (555) 533
 Opsin, (553) 90; (554) 410
 Organellar targeting, (547) 80
 Organelle, (546) 209
 Organic anion transport, (554) 23
 Organic matrix, (535) 49
 Orofacial, (539) 167
 Orphan, (554) 381
 Orphan receptor, (555) 495
 Orthology, (554) 45
Oryza sativa, (546) 173
Oryza sativa L., (544) 99
OsRac1, (546) 173
 Osteoblast, (536) 193; (539) 45; (554) 154
 Osteoclast, (539) 45
 Osteoclast recruitment, (553) 257
 Outer membrane protein, (555) 85
 Outer membrane protein A, (555) 229
 Ovary, (546) 149
 Overexpression, (537) 68; (547) 97
 Ovotransferrin, (548) 5
 Oxidants, (540) 195
 Oxidase, (555) 2
 β -Oxidation, (540) 251
 Oxidative burst, (537) 198
 Oxidative damage, (537) 187
 Oxidative DNA damage, (554) 138
 Oxidative folding, (536) 215
 Oxidative phosphorylation, (546) 355
 Oxidative stress, (534) 111; (535) 179; (536) 51; (537) 63; (538) 14; (540) 3; (540) 245; (542) 17; (542) 89; (542) 147; (543) 144; (544) 148; (546) 223; (546) 228; (546) 307; (546) 411; (547) 87; (549) 52; (551) 58; (553) 408; (555) 597
 Oxidized LDL, (537) 146
 Oxidized low-density lipoprotein, (553) 145
 Oxidoreductase, (534) 143; (553) 3; (555) 13
 2-Oxoglutarate-dependent dioxygenase, (544) 93
 Oxygen sensing, (541) 97
 Oxygen stress, (554) 399
 Oxygen uptake, (550) 64

Oxygenase, (545) 188
 Oxylin, (538) 155; (549) 31
 OxyR, (542) 17
 Oxytocin, (552) 120

P

P2 purinoceptor, (538) 71
 P₄, (550) 41
 p7, (535) 34
 P₁₅, (550) 41
 p15^{INK4b}, (554) 347
 P19 embryonic carcinoma cell, (539) 29
 p21, (544) 38
 p21 promoter, (552) 130
 p21-activated kinase, (550) 119
 p21^{WAF1/Cip1}, (554) 347
 p25, (547) 193
 p35, (547) 193
 p38, (549) 110; (553) 33
 p50 subunit, (547) 115
 p53, (536) 220; (539) 111; (543) 16; (544) 38; (544) 176; (549) 63; (550) 5; (553) 277; (554) 73; (555) 583
 p53 downregulation, (555) 302
 p57^{Kip2}, (543) 125
 p202, (553) 245
 p300, (553) 104
 P2X₇, (538) 159
 P2X₇ receptor, (538) 71
 P2Y₁ receptor antagonists, (536) 145
 PAb-240, (546) 321
 PABP, (546) 329
 Pacemaker, (553) 141
 Palmitate, (541) 109; (544) 185; (545) 219
 Palmitate-induced uncoupling, (544) 133
 Palmitoylation, (540) 101; (544) 57
 Palmitoyl-CoA, (536) 145
 Palmitoyl-protein thioesterase-1, (538) 207
 Palytoxin, (543) 108
 Pancreatic acinar cell, (538) 134
 Pancreatic cancer, (545) 144
 Pancreatic β -cell, (544) 185; (545) 219
 Pancreatic substitute, (537) 193
 Papain, (539) 120
 Paramyxovirus, (536) 56; (545) 177
 Paraquat, (544) 148
 Parasite mitochondria, (538) 35
 Parkinson's disease, (537) 63; (542) 147; (543) 179; (549) 171
 Paroxysmal nocturnal hemoglobinuria, (537) 111
 Parthenolide, (552) 141
 Partitioning-defective-1, (554) 45
Pasteurella multocida toxin, (540) 106
 Patch clamp, (534) 125; (535) 119; (539) 7; (547) 27; (552) 163; (553) 163
 Paternal brooding, (550) 124
 Pathogen, (555) 170
 Pathological mutation, (544) 21
Pavlova lutheri, (553) 440
 PBCV-1, (552) 2; (552) 12
 PC-1, (538) 60
 PC12 cell, (535) 179; (536) 30; (547) 92
 PD98059, (547) 92
 PDE2, (539) 161
 PDE5, (539) 161
 α 1-PDX, (536) 203
 PDZ, (547) 205
 PDZ domain, (554) 30
 Peas, (537) 1
 Pectin methylesterase, (555) 551
 Pellino, (547) 157
Penicillium marneffei, (555) 469
 Penta-EF hand family protein, (545) 151
 Pentatricopeptide repeat, (544) 99
 Pepsin, (538) 89
 Peptidase, (542) 12
 Peptide, (547) 43; (553) 135; (554) 211
 Peptide binding, (551) 119
 Peptide design, (537) 6
 Peptide-lipid interaction, (535) 23
 Peptide mass mapping, (552) 135
 Peptide synthesis, (540) 133
 Peptide transport, (549) 115
 β -Peptides, (535) 175
 Peptidyl prolyl *cis/trans* isomerase, (555) 335
 Peptidyl-prolyl isomerase activity, (542) 137
 Perforated patch, (533) 54
 Period, (555) 341
 Periplasm, (536) 167
 Periplasmic binding protein, (550) 168
 Permeability transition, (554) 511
 Peroxidase, (537) 146
 Peroxidation, (553) 145
 Peroxin, (549) 1
 Peroxiredoxin, (543) 87; (544) 148; (546) 181; (547) 140; (554) 149
 Peroxisome, (546) 247; (549) 1
 Peroxisome proliferator-activated receptor, (555) 631
 Peroxisome proliferator-activated receptor α , (543) 120; (546) 237
 Peroxisome proliferator-activated receptor γ , (542) 65; (543) 25; (550) 190; (553) 145
 Peroxisome proliferator activator receptor γ , (536) 35
 Peroxynitrite, (547) 92; (553) 377
 Persulfide, (555) 263
 Pertussis toxin, (554) 154
Petroselinum crispum, (544) 93
 Peutz–Jeghers syndrome, (546) 159
 pH, (537) 79; (553) 163; (555) 57
 pH dependence, (538) 89; (545) 224; (555) 449
 pH regulation, (542) 32
 pH study, (555) 185
 Phage, (536) 167
 Phage display, (554) 323
 Phage display system, (555) 317
 Phagocyte, (555) 57
 Phagocytosis, (540) 206; (545) 110
Pharaois phoborhodopsin, (536) 237
 Pharmacology, (547) 43
 Phenobarbital, (548) 17
 Phenylephrine, (542) 109
 Pheromone, (551) 139
 PHO pathway, (537) 210
 Phorbol ester, (534) 175; (536) 209
 Phorbol-12-myristate-13-acetate, (536) 85; (547) 37
 Phosphagen, (554) 201
 Phosphatase, (535) 141; (543) 31
 Phosphatase and tensin homolog deleted on chromosome 10, (554) 450
 Phosphate, (541) 137
 Phosphate deficiency, (537) 128
 Phosphate deprivation, (544) 63
 Phosphatidic acid, (537) 91
 Phosphatidic acid phosphatase (type 2), (552) 240
 Phosphatidyl inositol 3-kinase, (546) 181
 Phosphatidylcholine, (540) 245; (544) 63; (546) 247; (549) 152; (552) 253; (553) 113; (554) 165
 Phosphatidylethanolamine, (553) 113; (555) 419
 Phosphatidylinositol 3-kinase, (536) 198; (540) 106; (544) 181; (546) 108; (554) 77; (554) 450; (555) 591
 Phosphatidylinositol 3-kinase-Akt pathway, (555) 302
 Phosphatidylserine, (545) 110
O-Phospho-L-serine, (551) 133
 Phosphoarginine, (554) 201
 Phosphoaspartate, (538) 77
 Phosphodiesterase 3B, (542) 65
 Phosphodiesterase δ , (534) 26
 Phosphofructokinase-2, (554) 264
 6-Phosphofructo-2-kinase/fructose 2,6-bisphosphatase, (550) 23
 Phosphoglucose isomerase, (534) 49; (535) 200
 3-Phosphoglycerate dehydrogenase, (548) 69
 3-Phosphoinositide-dependent kinase-1, (546) 108
 Phosphoinositide 3-kinase, (534) 125; (534) 164; (546) 93; (553) 173

- Phosphoinositide 3'-kinase signalling pathway, (543) 81
 Phosphoinositides, (537) 35; (546) 25
 Phospholamban, (551) 37
 Phospholipase A₂, (546) 247
 Phospholipase A₂, (546) 251; (555) 257
 Phospholipase C, (544) 27; (546) 6
 Phospholipase Cδ₁, (546) 325
 Phospholipase Cγ₁, (536) 71
 Phospholipase C-γ₂, (542) 53
 Phospholipase D, (535) 101; (537) 91; (541) 93; (544) 38; (550) 51; (554) 50; (554) 179
 Phospholipid, (537) 128; (538) 155; (546) 247; (548) 119; (553) 113
 Phospholipid bilayer, (550) 185
 Phospholipid hydroperoxide glutathione peroxidase, (538) 107
 Phospholipid vesicle, (541) 132; (546) 271
 Phosphoprotein, (536) 141
 Phosphorylase, (551) 87
 Phosphorylated insulin receptor interacting region, (554) 240
 Phosphorylation, (535) 49; (540) 141; (543) 31; (543) 125; (546) 32; (546) 51; (546) 154; (546) 218; (551) 128; (551) 147; (554) 50; (554) 189
 Phosphorylation site, (535) 141
 Phosphoryl disulfide linkage, (538) 48
 Photoactivation, (554) 194
 Photoaffinity labeling, (544) 223
 Photocrosslinking, (548) 97
 Photoinduction, (554) 194
 Photoisomerase, (554) 410
 Photolabelling, (544) 45
 Photolysis, (554) 443
 Photopigment, (554) 410
 Photoprotein, (554) 184
 Photosensitization, (553) 167
 Photosynthesis, (540) 26; (540) 234; (543) 159; (545) 97; (545) 193; (546) 189; (546) 345; (553) 179; (553) 295; (555) 40
 Photosynthetic control, (544) 15
 Photosynthetic electron transport, (553) 223
 Photosynthetic membrane, (537) 161
 Photosynthetic reaction center, (535) 166; (545) 52
 Photosystem I, (549) 52
 Photosystem I, (536) 97; (553) 223; (555) 40
 Photosystem I assembly, (533) 59
 Photosystem II, (535) 159; (541) 171; (543) 148; (545) 193; (553) 109
 Phototransduction, (542) 142
 Phycobilisome, (553) 68
 Phycocyanin, (549) 57
 Phycoerythrin, (553) 79
 Phylogenetic analysis, (554) 95
 Phylogeny, (553) 239
 Physarolisin II, (546) 340
Physarum polycephalum, (546) 340
 L-Phytohemagglutinin, (554) 515
 PI-3K/Akt, (549) 99
 PI3-kinase, (540) 181; (548) 43
 PIAS, (554) 111
Pichia pastoris, (537) 68; (553) 365
 piD261/Bud32, (549) 63
 PII helix, (555) 371
 pIII, (554) 323
 pK_a, (534) 197
 PKA, (551) 147
 Placenta, (552) 120
 Planar bilayer, (555) 229
 Plant, (536) 215; (546) 369
 Plant cell, (544) 63
 Plant cell wall, (555) 551
 Plant cytoskeleton, (534) 161
 Plant mitochondria, (540) 201
 Plant mitochondrion, (537) 96; (555) 363
 Plant pathogen, (539) 105
 Plant phenolics, (553) 377
 Plant protein, (549) 47
 Plant reproductive biology, (542) 47
 Pl^A polymorphism, (540) 41
 Plasma membrane, (537) 128; (538) 113; (541) 126; (547) 69
 Plasmid exchange, (538) 139
 Plasminogen activator inhibitor type-2, (537) 11
Plasmodium, (553) 135; (555) 500
Plasmodium falciparum, (547) 80; (547) 140; (554) 247; (554) 284
 Plasticity, (554) 224
 Plastid terminal oxidase, (555) 425
 Plastocyanin, (555) 40
 Plastoquinone, (540) 35
 Platelet, (542) 53; (544) 240; (546) 265; (553) 173
 Platelet activation, (553) 173
 Platelet aggregation, (549) 129; (553) 173
 Platelet-derived growth factor, (533) 25; (550) 51; (552) 130; (554) 77; (555) 591
 Platelet endothelial cell adhesion molecule-1, (540) 7
 Pleiotropic drug resistance protein, (553) 370
 Pneumonia, (535) 205
 Poisson distribution, (550) 135
 Polarity sensing, (538) 25
 Polarization, (542) 79
 Poliovirus 2B, (552) 68
 Pollen, (542) 47; (547) 223
 Polo, (545) 209
 Poloxamer, (540) 241
 Poloxamine, (547) 177
 Polyadenylation signal, (554) 59
 Poly-ADP ribosyl transferase, (554) 55
 Poly(ADP-ribose) polymerase, (538) 178
 Polyalanine, (555) 380
 Polyamine, (545) 233; (549) 26
 Polyamine biosynthesis, (544) 258
 Polyamine conjugation, (534) 180
 Polyamines, (553) 131
 Poly(A) polymerase, (550) 41
 Poly(A)-rich element and eukaryote, (546) 329
 Polycystic kidney disease, (538) 8
 Polycystin-1, (538) 8
 Poly-glutamine, (551) 107
 Polyglutamine disease, (549) 21
 Polymerization, (540) 163
 Polymer-protein interaction, (547) 177
 Polymorphism, (542) 27; (554) 450
 Polyomavirus large tumor antigen, (555) 268
 Polyomavirus-like particle, (555) 199
 Poly(Phe) synthesis, (555) 455
 Polyphenol, (543) 184
 Polyphosphates, (550) 41
 Polyphosphoinositide phosphatase, (537) 35
 Polypeptide, (553) 451
 Polyunsaturated fatty acid, (542) 100
Populus, (555) 443
Populus trichocarpa × *deltoides*, (542) 37
 Pore, (555) 85
 Pore formation, (535) 71
 Pore formation mechanism, (555) 545
 Pore-forming toxin, (549) 47
 Pore model, (552) 68
 Pore size, (552) 54
 Porifera, (554) 363
 Porin, (545) 127
 Positive charge, (540) 15
 Post-transcriptional control, (535) 147; (546) 329
 Post-translational modification, (534) 180; (535) 106; (546) 154; (547) 145; (554) 403
 Posttranslational modification, (539) 37
 Posttranslational N-myristoylation, (539) 37
 Posttranslational regulation, (555) 551
 Potassium channel, (536) 45; (547) 162; (547) 205; (554) 159; (555) 92
 Potato, (538) 155
 PP2A, (536) 180
 PPAR, (536) 232
ppi1, (544) 79
 Preadipocytes, (548) 125
 Pre-B cell, (536) 125
 Pre-B-cell colony-enhancing factor, (544) 74
 Prechordal plate, (543) 190
 Preconditioning, (536) 35; (536) 51; (547) 51
 Pre-mRNA splicing, (552) 219
 Preproghrelin, (541) 64
 Presenilin, (550) 30; (553) 151
 Presenilin 1, (541) 145

- Pressure overload, (548) 79
 Presynaptic complex, (546) 203
 Presynaptic neurotoxicity, (553) 309
Prevotella intermedia, (543) 98
 Primate, (534) 61
 Prion, (536) 61; (538) 96
 Processing, (547) 125; (555) 209
 Processivity, (554) 462
Prochlorococcus, (553) 79
 Profile-based method, (552) 225
 Progesterone, (552) 193
 Pro-inflammatory cytokine, (544) 171
 Prokaryote, (552) 189
 Prolactin, (544) 171
 Prolactin receptor, (544) 171
 Proliferation, (550) 163; (553) 445
 Proline-rich peptide, (553) 328
 Promoter, (537) 117; (538) 168; (542) 27; (542) 47; (554) 347
 Promoter recognition, (544) 199
 Promoter region, (535) 87
 Propionate, (545) 47
 Proprotein cleavage, (536) 203
 Proprotein convertase, (554) 275
 Prostaglandin, (546) 251
 Prostaglandin E synthetase, (547) 75
 Prostaglandin E2 synthase, (555) 478
 Prostaglandin GH synthase, (547) 75
 Prostaglandin I₂, (554) 88
 Prostate, (546) 17; (555) 561
 Prostate cancer, (539) 156
 Protease, (542) 12
 Proteasome, (535) 77; (535) 190; (536) 220; (542) 89; (546) 228; (546) 374; (550) 23; (553) 151; (553) 200; (554) 77; (555) 329; (555) 397
 20S Proteasome, (547) 7
 Proteasome inhibition, (553) 200
 Proteasome inhibitor, (542) 89; (555) 209
 Protection assay, (553) 141
 Protective antigen, (554) 505
 14-3-3 protein, (544) 160
 AAA protein, (555) 126
 AAA+ protein, (553) 125
 Protein acylation, (539) 37
 Protein aggregation, (537) 63; (537) 215; (543) 93
 Protein complex, (536) 130
 Protein coupling, (554) 95
 Protein crystal, (555) 13
 Protein database analysis, (554) 389
 Protein degradation, (555) 329
 Protein design, (539) 2
 Protein disaggregation, (553) 125
 Protein engineering, (533) 115; (554) 169; (555) 449
 Protein evolution, (553) 3
 Protein export, (555) 66
 Protein expression, (544) 218
 Protein folding, (534) 7; (536) 187; (539) 24; (539) 125; (542) 142; (553) 39; (553) 45; (553) 328; (555) 116
 Protein function, (544) 236; (552) 177
 Protein function annotation, (554) 257
 Protein fusion, (538) 139; (550) 46
 Protein identification, (533) 63
 Protein import, (553) 163
 Protein inhibitor of activated STAT, (549) 171
 Protein inhibitor of activated STAT1, (555) 322
 Protein interaction, (547) 212
 Protein kinase, (535) 183; (546) 73; (546) 108; (546) 281; (549) 63
 Protein kinase A, (546) 59; (546) 121; (546) 407
 Protein kinase A inhibitor, (546) 407
 Protein kinase A pathway, (539) 68
 Protein kinase B, (534) 125; (539) 56; (546) 108; (553) 173
 Protein kinase C, (534) 175; (535) 101; (536) 161; (536) 209; (538) 101; (540) 91; (541) 126; (547) 37; (550) 101; (554) 179
 Protein kinase C inhibitor, (536) 209
 Protein kinase C θ , (541) 155
 Protein kinase C θ phosphorylation, (554) 35
 Protein kinase C δ , (552) 184; (555) 539
 Protein kinase CK2, (537) 210
 protein kinase CK2, (546) 218
 Protein kinase CK2, (554) 295
 Protein kinase C μ , (546) 81
 Protein kinase D, (546) 81
 Protein module, (551) 107
 Protein N-myristoylation, (539) 37
 Protein overexpression, (553) 45
 Protein oxidation, (539) 68; (542) 89; (543) 144; (546) 228
 Protein phosphatase, (548) 17; (549) 72
 Protein phosphatase-1, (554) 253
 Protein phosphatase 2C, (538) 197
 Protein phosphorylation, (547) 223; (549) 63; (553) 179
 Protein refolding, (553) 271
 Protein screening, (552) 207
 Protein sequence, (545) 105
 Protein stability, (535) 171; (539) 125; (553) 328
 Protein structure, (534) 7; (544) 236; (552) 75; (555) 505
 Protein structure and function, (552) 39
 Protein structure prediction, (554) 257
 Protein synthesis, (540) 176; (550) 51; (552) 95; (553) 205
 Protein targeting, (534) 156; (546) 257; (555) 511
 Protein three-dimensional structure, (533) 9
 Protein topology, (541) 40
 Protein trafficking, (542) 142; (555) 351
 Protein translocation, (537) 42; (550) 18; (550) 114
 Protein transport, (539) 61
 Protein tyrosine kinase, (540) 111
 Protein tyrosine phosphorylation, (549) 129
 Protein unfolding, (555) 638
 Proteinase inhibitor, (538) 183
 Protein-cholesterol interaction, (553) 229
 Protein-derived radical, (547) 87
 Protein-DNA interaction, (546) 167
 Protein-ligand binding, (553) 328
 Protein-ligand recognition, (554) 351
 Protein-lipid interaction, (533) 47; (541) 28
 Protein-membrane interaction, (551) 13
 Protein-protein interaction, (533) 14; (542) 119; (544) 236; (545) 127; (545) 133; (545) 151; (546) 167; (548) 11; (553) 183; (553) 391; (554) 179; (554) 289; (554) 403; (555) 279; (555) 405
 Protein-RNA interaction, (552) 231
 Protein-tyrosine phosphatase, (540) 7
 Proteobacteria, (555) 425
 Proteoglycan, (555) 431
 Proteolysis, (534) 11; (542) 89; (554) 505; (555) 572
 Proteolytic cleavage, (547) 145
 Proteolytic processing, (555) 623
 Proteolytic stability, (535) 175
 Proteomic approach, (554) 455
 Proteomics, (534) 161; (537) 96; (540) 141; (540) 201; (547) 151; (554) 394
 Protochlorophyllide, (553) 119
 Protochordate, (552) 193
 Proton, (545) 31; (555) 2
 Proton channel, (552) 17
 Proton-coupled electron transfer, (555) 45
 Protonmotive, (545) 39
 Protonmotive force, (545) 25; (548) 5
 Proton pathway, (545) 47
 Proton pump, (545) 2; (545) 9
 Proton pumping, (555) 8
 Proton transfer, (545) 52; (545) 193
 Proton transport, (545) 61; (545) 76; (552) 23; (555) 29; (555) 45
 Protonophore, (554) 315
psaFJ, (549) 52
PsbU, (543) 148
 PSD95-disc large-zona occludens domain-containing protein, (546) 65
 Pseudogene, (555) 192
Pseudomonas, (542) 12
Pseudomonas aeruginosa, (537) 182; (555) 297
Pseudomonas stutzeri, (534) 143
Psidium guajava, (549) 31
 PTEN, (545) 203; (549) 99
 PTP1B, (546) 140
 P-type ATPase, (543) 31
 PufX, (535) 166
 Pulmonary metastasis, (550) 79
 Pulsed field gradient, (545) 139
 Purine alkaloid, (554) 473
 Putrescine, (544) 258

PYD/CARD-containing protein, (554) 520
 PYK2, (555) 478
 Pyren-1-yl-vinyl pyridine, (541) 132
 Pyrethroid, (540) 81
 Pyridoxal 5'-phosphate, (554) 41; (554) 306
 Pyridoxal phosphate, (535) 44
 PYRIN-/CARD-containing protein, (538) 173
 Pyrithiamine, (555) 516
Pyrus communis, (537) 198
 Pyruvate, (535) 44
 Pyruvate dehydrogenase, (555) 405

Q

Q cycle, (545) 39
 Q motif, (554) 485
 Quadruplex, (542) 153
 Quail muscle (QM7) cell line, (540) 176
 Quaternary structure, (540) 163; (544) 189; (549) 47
 Quinol, (537) 161
 Quinol:fumarate reductase, (545) 52
 Quinol oxidase, (538) 35
 Quinone, (555) 367
 Quinone oxidoreductase, (545) 31
 Quinone pool, (537) 161

R

Rac, (546) 11; (546) 93
 Rac isoform, (555) 556
 Rac1, (536) 71; (539) 131; (555) 556
 Rac1-binding, (539) 131
 Rac2, (555) 556
 Rac3, (555) 556
 RAD50, (553) 56
 Radiolabeled drugs, (552) 155
 Raft, (537) 177; (541) 155; (547) 101; (550) 101; (550) 144
 RAG, (536) 125
 RAG2, (537) 1
 RALyase, (555) 455
 Raman spectroscopy, (554) 247
 Random Mutagenesis, (552) 110
 Random oligonucleotide selection, (536) 151
 Random peptide library, (555) 317
 Rap1, (546) 121
 Rap2, (546) 121
 Rapid assay, (548) 74
 Rapid delayed rectifier, (547) 20
 Ras, (545) 246; (546) 6
 Ras homology GTPase, (540) 211
 Rat, (542) 84
 Rat brain, (543) 170
 Rat epitrochlearis muscle, (536) 198
 Rat erythrocyte, (543) 103
 Rat Na⁺-dependent glucose transporter 1, (546) 276
 Rat preadipocyte, (543) 25
 Ratiometric probe, (541) 132
 RB3 protein, (546) 365
 RBL-2H3 cell line, (554) 489
 RCC1-like domain, (539) 78
 rDNA transcription, (548) 79
 Reaction center, (540) 26; (540) 234
 Reactive histidine, (540) 163
 Reactive nitrogen species, (537) 146; (547) 140; (553) 377
 Reactive oxygen species, (542) 60; (546) 173; (547) 92; (547) 140; (549) 94; (550) 163; (555) 567
 Real-time quantitative polymerase chain reaction, (544) 214
 Reaper, (550) 5
 RecA monomer positioning, (546) 203
 RecA protein, (537) 182; (546) 203
 Receptor, (553) 321; (553) 342; (553) 445
 σ Receptor, (553) 157
 Receptor-activity-modifying protein, (555) 285
 Receptor chimeras, (546) 1
 Receptor clustering, (534) 169; (546) 45
 Receptor for advanced glycation end product, (537) 85
 Receptor for advanced glycation end-products, (550) 107
 Receptor tyrosine kinase, (533) 25; (535) 39; (543) 76
 Recombinant, (549) 167
 Recombinant antibody, (533) 115
 Recombinant baculovirus, (537) 106
 Recombinant synthesis, (533) 72
 Recombinant therapeutic proteins from plants, (552) 170
 Recombination, (536) 125
 Reconstitution, (537) 68; (552) 47; (555) 160
 Recursive feature elimination, (555) 358
 Red blood cell, (534) 185
 Red chlorophyll spectral state, (547) 107
 Redifferentiation, (542) 95
 Redox, (539) 143; (543) 144; (554) 357
 Redox active disulfide, (554) 301
 Redox balance, (551) 165
 Redox Bohr, (545) 47
 Redox catalysis, (535) 179
 Redox loop, (545) 25
 Redox perturbation, (553) 370; (553) 427
 Redox potential, (543) 164; (547) 32
 Redox reaction, (545) 18
 Redox regulation, (545) 71; (547) 151
 Redox state, (542) 60
 Reductase domain, (554) 1
 Re-endothelialization, (544) 86
 Reg1, (544) 160
 Regenerating agent, (537) 23
 Regeneration, (554) 311
reggie-2, (555) 223
 Regulation, (544) 206
 Regulation of transcription, (555) 341
 Regulation of translation, (533) 89
 Regulatory element, (546) 349
cis-Regulatory element, (536) 12
 CO₂-regulatory element, (542) 42
 Regulatory subunit, (546) 59
 REH, (534) 175
 Relative contact order, (533) 9
 Relative entropy, (537) 121
 Remote homology, (552) 225
 Renal, (540) 71
 Renal transport, (536) 141
 Repeat protein, (539) 2
 Replication, (546) 295; (548) 37; (553) 18; (555) 521
 Representational difference analysis, (547) 51
 Reproduction, (552) 193
 Resistance, (546) 300
 Resistin, (548) 21; (555) 243
 Resistin-like molecule, (555) 243
 Resonance, (555) 13
 Respiration, (552) 189
 Respiratory burst, (555) 57
 Respiratory chain, (540) 141; (545) 9
 Respiratory enzyme, (555) 13
 Response regulator, (537) 101; (538) 77
 Restenosis, (553) 21
 Restorer fertility gene, (544) 99
 Restriction enzyme-mediated integration transgenesis, (547) 1
 Retina, (553) 90
 Retinal, (545) 2; (555) 151
 Retinal degeneration, (551) 128
 Retinoblastoma protein, (552) 130
 Retinoic acid, (537) 73; (541) 93; (555) 431
 Retinoic acid receptor, (541) 93
 Retinoid X receptor α , (543) 120
 Retinol binding protein, (553) 39; (555) 279
 Retinoschisis, (544) 21

Reverse sphingomyelin-synthase, (549) 152
 Reverse transcriptase polymerase chain reaction, (548) 69
 RGS, (533) 67
 Rheumatoid arthritis, (551) 8
 Rhinovirus, (552) 61
 Rhizobium, (553) 239
 Rho GTPase, (533) 35; (542) 7
 Rho kinase, (542) 79
Rhodella violacea, (533) 59
Rhodobacter capsulatus, (553) 408; (554) 315
Rhodobacter sphaeroides, (546) 345; (555) 45
Rhodospseudomonas, (555) 35
 Rhodopsin, (551) 128; (554) 381; (555) 151
 Ribavirin, (554) 473
 Ribonuclease, (534) 197; (554) 105
 Ribonucleotide reductase R1, (545) 213
 Ribose, (553) 85
 70-kDa Ribosomal protein S6 kinase, (543) 81
 Ribosomal RNA, (548) 97
 Ribosomal S6 kinase, (546) 51
 Ribosomal S6K, (550) 94
 Ribosome, (541) 16; (548) 79
 Ribosome display, (539) 24
 Ribosome-inactivating protein, (538) 178; (541) 16; (555) 455
 Riboswitch, (555) 516
 Ribotoxin, (534) 197; (541) 16
 Ribulose-1,5-bisphosphate carboxylase/oxygenase, (542) 42
 Rice (*Oryza sativa* L.) root, (553) 370; (553) 427
 RING finger, (544) 218
 Ring structure, (533) 9; (543) 47
 RINm5F cells, (538) 107
 RIP140, (546) 149
 RNA, (554) 73
 RNA aptamer, (548) 85
 RNA interference, (539) 111; (543) 93; (543) 154; (548) 113; (552) 247
 RNA polymerase, (544) 199; (554) 289; (554) 357
 RNA polymerase II, (547) 15
 RNA polymerase III, (548) 33
 RNA polymerase promoter, (548) 113
 RNA-binding protein, (535) 94
 RNAi, (543) 51
 RNase P, (548) 33
 Rod photoreceptor cell, (542) 142
Roseobacter denitrificans, (535) 166
 Rotary motor, (555) 29
 Rotation, (533) 1
 Rotenone, (543) 179; (544) 153
 Rotor, (543) 47
 RPB3, (547) 15
 rRNA-ribosomal protein S8 interaction, (549) 123
 RTX toxin, (546) 271
 Rv1625c, (545) 253
 Ryanodine receptor, (547) 32; (554) 133

S

S/MAR, (547) 119
 S19, (553) 11
 S1P1 receptor, (533) 25
 S6K1, (540) 176
Saccharomyces cerevisiae, (537) 210; (545) 239; (549) 63; (550) 41; (553) 45; (554) 194; (554) 422
 Salicylic acid, (543) 136
 Saline tolerance, (545) 239
 Saliva, (550) 64
 Salivary agglutinin, (540) 21
 Salmonella, (552) 110
 Salt stress, (548) 53; (553) 427
 Salt tolerance, (554) 417
 Sanglifehrin A, (555) 335
 SAP97, (547) 205
 α -Sarcin, (534) 197

Sarcin-ricin loop, (555) 455
 Sarcoplasmic reticulum, (542) 69; (544) 50; (547) 32; (551) 37
 SARS-coronavirus, (553) 451
SAUR-AC1, (553) 28
 SB203580, (551) 139
 SCA1, (551) 107
 Scaffold, (539) 2
 Scaffolding, (546) 65
 Scanning near-field optical microscopy, (555) 611
Schizosaccharomyces pombe, (549) 176; (555) 335
 Sciatic nerve, (554) 311
 Sco, (546) 411
 Scorpion, (539) 7
 Scorpion toxin, (547) 20; (554) 211
 Scorpion toxin binding, (540) 81
 Sec18, (540) 101
 SecDF-YajC, (550) 114
 SecG, (550) 114
 Sec machinery, (550) 114
 Second mitochondria-derived activator of caspase, (538) 19
 γ -secretase, (550) 30
 Secretory phospholipase A₂, (553) 113; (553) 309
 Sedlin, (540) 77; (550) 1
 Seed, (534) 106
selD^{mut}, (534) 111
 Selection, (546) 379
 Selective insecticide, (540) 81
 Selectivity mechanism, (552) 23
 Selenium, (541) 85
 Selenoprotein, (534) 111
 Self-aggregation, (546) 345
 Self-incompatibility, (547) 223
 Self-organizing map, (538) 117
 Self-replication, (553) 18
 Sendai virus, (536) 56
 Senescence, (540) 35; (541) 6
 Senescence accelerated mouse, (541) 6
 Sensor chip, (536) 151
 Sensory rhodopsin II, (536) 237
 Sepsis, (555) 180
 Septation, (554) 45
 Sequence analysis, (536) 77; (537) 121; (544) 236
 Sequence homology, (555) 317
 Ser-116, (543) 16
 Ser-127, (543) 16
 SERCA1a, (555) 106
 Serial analysis of gene expression, (546) 98
 D-Serine, (535) 44
 Serine-carboxyl peptidase, (546) 340
 Serine protease, (544) 119
 Serine racemase, (535) 44
 Serine transport, (548) 69
 Serpin, (537) 11; (541) 121
Serratia marcescens, (536) 41
 Ser-Thr kinase, (544) 176
 Serum, (547) 177
 Serum albumin, (547) 177
 Serum amyloid A protein, (537) 166
 Serum transferrin, (548) 5
 Serum transferrin receptor, (536) 25
 Seven clusters, (540) 188
 Severe acute respiratory syndrome, (553) 451
 Severe acute respiratory syndrome genome, (554) 257
 SH3 domain, (550) 119
 Shc, (554) 467
 Shear stress, (540) 41; (551) 153
 Shear stress response element, (537) 117
 Shedding, (553) 360
Shigella flexneri, (545) 183
 Shoot/root formation, (555) 291
 Short chain dehydrogenase reductase, (554) 59
 Short interfering RNA, (539) 111; (555) 346
 Short resistin, (555) 243
 SHP-2, (540) 7; (540) 106
 Shrimp, (551) 53
 Sialic acid, (534) 185; (542) 105
 Sialidase, (542) 105; (543) 71; (547) 183; (553) 355
 Sialyltransferase, (537) 73

- SID, (548) 108
 Sigma factor, (554) 357
 Signal peptide function, (538) 203
 Signal sequence, (550) 18
 Signal transducer and activator of transcription, (534) 190; (555) 385
 Signal transducer and activator of transcription-1–green fluorescent protein, (546) 1
 Signal transducer and activator of transcription-6, (550) 139
 Signal transduction, (536) 135; (539) 167; (540) 3; (540) 111; (541) 126; (542) 53; (544) 27; (545) 161; (546) 45; (546) 81; (546) 108; (546) 133; (546) 140; (549) 99; (552) 177; (553) 179; (553) 403; (554) 240; (554) 271
 Signaling, (535) 6; (537) 35; (544) 240; (545) 199; (546) 11; (546) 32; (546) 65; (546) 93; (547) 7
 Signaling pathway, (554) 95
 Silencing mediator for retinoid and thyroid receptors, (539) 19
 Silk spinning, (554) 337
 Silver, (546) 391
 Silymarin, (550) 89
 Sin3A, (552) 214
 Single-chain antibody, (550) 179
 Single-chain Fv, (533) 115
 Single molecule manipulation, (535) 55
 Single-molecule polymerase chain reaction, (540) 147
 Single mutation, (539) 14
 Singlet oxygen, (549) 83
 siRNA, (543) 51
 Site-directed ^{13}C solid-state NMR, (536) 237
 Site-directed integration, (550) 46
 Site-directed mutagenesis, (539) 61; (541) 89; (542) 32; (544) 11; (546) 241; (547) 137; (553) 391
 Site-directed mutations, (555) 45
 Site-specific recombination, (545) 133
 Sjl protein, (537) 35
 Skeletal muscle, (533) 54; (536) 232; (541) 75
 Skeletal muscle atrophy, (553) 63
 Skewness, (555) 579
 Skp1-Cdc53/cullin-F box, (541) 102
 Smad, (536) 30; (539) 167; (546) 133
 Small angle neutron scattering, (537) 182
 Small-angle X-ray scattering, (544) 189; (546) 395; (551) 119
 Small interfering RNA, (541) 21; (548) 113; (552) 247
 Small intestine, (535) 131; (540) 157; (553) 299
 Small protein B, (535) 94
 Small ubiquitin-like modifier-1, (555) 322
 Small ubiquitin-related modifier-1, (538) 197
 Smooth muscle, (540) 151
 Smooth muscle cell, (534) 175; (555) 346
 Snake venom, (547) 131; (553) 309
 Snake venom metalloproteinase, (549) 129
 SNARE, (550) 144
 SNARE complex, (540) 101
 SNARE protein, (534) 54
 S-Nitrosothiol, (535) 106
 S-nitrosylation, (551) 153
 Snorkeling, (544) 69; (555) 134
 SOCS, (546) 32
 Sodium, (547) 7
 Sodium butyrate, (554) 88
 Sodium channel, (552) 163; (553) 209; (554) 211; (555) 616
 Sodium dodecyl sulfate, (544) 50
 Sodium extrusion, (548) 53
 Sodium pump, (536) 198
 Soleus muscle, (541) 109
 Solubility enhancer, (537) 53
 Soluble amyloid precursor protein, (547) 193
 Soluble guanylyl cyclase, (551) 99
 Solution structure, (555) 616
 Somatotropin, (555) 567
 Sorcin, (545) 151
 Soybean, (540) 206
 Sp1, (541) 149; (543) 61; (544) 38; (552) 130; (554) 433
 Sp3, (554) 433
 Sp1 phosphorylation, (545) 203
 Specificity, (547) 137
 Spectral anisotropy, (550) 185
 Spectral tuning, (555) 151
 Spectrofluorimetry, (553) 79
 Spectrophotometry, (554) 337
 Spectroscopy, (540) 234; (555) 2
 Sperm, (538) 14
 Sperm motility, (541) 69
 Spermatocytes, (535) 61
 Spermatogenesis, (535) 61; (553) 205
 Spermatozoa, (544) 119
 Spermatozoon, (553) 205
 Spermine, (542) 153
 Sphingolipid, (537) 177; (538) 192; (547) 101; (548) 28
 Sphingomyelin, (542) 1; (549) 152
 Sphingomyelinase, (539) 56
 Sphingosine, (538) 192; (554) 189
 Sphingosine kinase, (554) 189
 Sphingosine-1-phosphate, (533) 25; (535) 101; (539) 56; (554) 189; (554) 443
 SPI, (536) 111
 Spider, (547) 43; (554) 211
 Spinach, (542) 137; (549) 167
 Spinocerebellar ataxia, (549) 21
 Spinocerebellar ataxia type 3/Machado–Joseph disease, (549) 21
 [^3H]Spiperone binding, (545) 155
 Spleen lipid, (537) 177
 Spliceosome, (552) 219
 Splicing regulation, (537) 30
Spodoptera littoralis, (537) 106
 Spondyloepiphyseal dysplasia tarda, (550) 1
 Sponge, (554) 363
 Src, (537) 47
src-1, (534) 133
 Src homology region 3 domain, (539) 125; (553) 328
 Src kinase, (538) 145
 SREBP, (536) 232
 Stabilising interaction, (554) 41
 Stability, (540) 15; (543) 16; (549) 167; (554) 389
 Stabilization, (543) 120
 STAT, (545) 177
 STAT-5b, (544) 171
 STAT repressor, (554) 111
 Statin, (555) 385
 Statistical mechanics, (536) 187
 Ste20p, (543) 129
 Stealth nanoparticle, (547) 177
 Stem cell, (535) 131
 Step size, (546) 209
 Stepping motion, (546) 209
 Stereoelectronic property, (547) 217
 Stereospecificity, (552) 95
 Steroid hormone secretion, (536) 173
 Steroid hormones, (546) 149
 Steroidogenesis, (543) 140
 Sterol glucoside, (553) 365
 Sterol-responsive element binding protein, (554) 403
 Stomach, (541) 64
 Storage protein, (534) 106
 Storage root, (536) 101
 Storage root induction, (536) 101
 Store operated channel, (541) 69
 Strand asymmetry, (555) 579
 Streptolysin O, (553) 229
Streptomyces cattleya, (547) 111
Streptomyces coelicolor, (540) 188
 Streptomycin, (554) 494
 Streptozotocin, (542) 84; (554) 511
 Stress-activated protein kinase/c-Jun N-terminal kinase, (536) 193
 Stress kinase cascade, (543) 129
 Stress signaling, (546) 81
 Stretch, (536) 193
 Striated muscle, (542) 69
 Stromal cell, (550) 155
 Structural cooperativity, (539) 125
 Structural data, (552) 231
 Structural dynamics, (555) 51
 Structural modeling, (554) 520
 Structural proteomics, (552) 207
 Structural zinc, (555) 317
 Structure, (540) 15; (541) 47; (541) 80; (541) 137; (547) 43; (549) 21; (551) 107; (553) 232; (555) 13

Structure and function, (555) 72
 Structure-based mutagenesis, (554) 403
 Structure function, (545) 233
 Structure–function relation, (555) 139
 Structure prediction, (538) 173; (555) 116
 Subcellular distribution, (544) 74
 Subcellular localization, (553) 403
 Subcomplex, (544) 206
Suberites domuncula, (554) 363
 Submergence, (546) 369
 Subsite map, (544) 194
 Substance P, (544) 45
 σ^{70} subunit, (544) 199
 Subunit *a*, (555) 29
 Subunit assembly, (547) 162
 Subunit *c*, (543) 47
 Subunit *c*, (555) 29
 Subunit rotation, (545) 61
 Succinate dehydrogenase, (543) 1; (545) 31; (555) 21
 Succinate transporter, (534) 87
 Succinimide, (538) 77
 Sucrose, (534) 207
 Sucrose isomerization, (534) 151
suf operon, (555) 263
 Sugar-binding site, (555) 96
 SulA, (553) 351
 Sulfatide, (536) 241; (553) 355
 Sulfite reductase, (554) 1
 Sulfonylurea, (554) 23
 Sulfonylurea receptor, (552) 259
 Sulfoquinovosyl diacylglycerol, (553) 109
 Sulfur transfer, (555) 263
 SUMO, (546) 374
 Superfamily, (552) 225
 Superoxide, (535) 106; (540) 195; (545) 219; (551) 99; (555) 57
 Superoxide dismutase, (540) 141
 Superposition, (545) 105
 Support vector machine, (555) 358
 Suppressor of cytokine signaling-1, (534) 190
 Suppressor of cytokine signaling-3, (555) 385
 Suramin, (533) 54; (544) 119
 Surface biotinylation, (544) 228
 Surface expression, (546) 385
 Surface plasmon resonance, (536) 130; (536) 151; (540) 133; (547) 11; (547) 177; (549) 63; (554) 206
 Survival, (541) 6
 Survivin, (552) 214
 SW480, (538) 19
 SW620, (538) 19
 Sweet protein, (544) 33
 Sweetness determinant, (544) 33
 Sweetness evaluation, (544) 33
 Sweetpotato, (536) 101
 Swelling, (538) 101
 Symbiosis, (554) 271
 Synaptosomal-associated protein of 25 kDa, (555) 375
 Synaptosomal 25 kDa protein, (544) 57
 Synaptosome, (553) 157; (555) 375
 Synaptotagmin, (544) 57
 Synchrotron radiation, (553) 79
 Syndecan, (534) 11; (547) 212
Synechococcus sp. PCC7002 (*Agmenellum quadruplicatum* PR-6), (542) 42
Synechocystis, (543) 148
Synechocystis PCC 6803, (541) 171; (549) 52; (552) 135
 Synovocyte, (551) 8
 Syntaxin 1, (536) 209
 α -Synuclein, (537) 63; (542) 147

T

T1 domain, (547) 162

T140, (550) 79
 T342A, (543) 125
 Tandem affinity purification, (548) 90
 Tandem repeat, (554) 17
 Tankyrase, (554) 10
 Target ORF, (552) 207
 Targeting, (540) 241; (546) 65
 Taste, (544) 33
 Tat, (543) 61; (548) 37
 Tat pathway, (539) 61
 TatAB subunits, (537) 42
 TATA-box binding protein, (543) 61
 Tau, (539) 34
 Tau phosphorylation, (535) 183
TauT, (540) 71
 Tautomerism, (555) 13
 Tax, (539) 73
 Taxol, (538) 41; (539) 34
 tBid, (555) 545
 T cell, (541) 155
 T cell activation, (540) 91; (541) 163
 T cell receptor, (543) 11; (546) 379
 T cell receptor signal, (541) 163
 T cell receptor signaling, (541) 155
 Tcf, (547) 1
 Tellurite uptake, (554) 315
 Telomerase, (536) 111; (536) 180; (540) 91; (541) 6; (546) 321
 Telomerase reverse transcriptase, (546) 315
 Telomere, (554) 369
 Telomere binding protein, (554) 455
 Telomeric chromatin, (554) 369
 Temperature-sensitive, (555) 229
 Temperature-sensitive mutation, (545) 229
 Tensegrity, (534) 7
 Terpenoid, (550) 190
 Testicular germ cell, (538) 197
 Testis, (549) 163
 Testis-specific gene expression, (547) 61
 Testosterone, (543) 140; (552) 193
 Tetanus neurotoxin, (542) 132
 Tetracycline-repressible promoter, (553) 213
 12-*O*-Tetradecanoylphorbol-13-acetate, (554) 179
 Tetraethylammonium, (554) 159
 Tetrahaem subunit, (535) 166
 Tetrahydrofolate, (555) 601
 Tetraphenylphosphonium ion electrode, (554) 315
 TFIIB, (548) 33
 Thapsigargin-sensitive Ca^{2+} store, (554) 443
 Theobromine, (534) 75
 Thermal aggregation, (555) 390
 Thermal stability, (553) 423
Thermococcus litoralis, (535) 200
 Thermodynamical calculation, (544) 69
 Thermodynamics, (554) 351
 Thermogenesis, (544) 138; (555) 631
 Thermosome, (547) 201
 Thermostability, (549) 123
 Thermostable, (549) 147
 Thiamine, (555) 516
 Thiamine biosynthesis, (539) 95
 Thiazolidinedione, (553) 419
 Thimet oligopeptidase, (545) 224
 Thiol–disulfide exchange, (538) 48
 Thiol–disulfide exchange reaction, (543) 164
 Thiol reduction, (555) 443
 Thiol-specific antioxidant-like protein, (544) 228
 Thionin, (536) 215
 Thioredoxin, (539) 143; (543) 87; (543) 144; (546) 181; (547) 151; (551) 153; (553) 11; (554) 301
 Thioredoxin *h*, (555) 443
 Thioredoxin peroxidase, (547) 140
 Thioredoxin reductase, (541) 85
 THP-1, (555) 257
 Thr⁵³⁸ → Ala protein kinase C θ , (554) 35
 Thr⁵³⁸ → Glu protein kinase C θ , (554) 35
 Three-dimensional domain swapping, (554) 105
 Thrombin, (541) 121
 Thrombospondin-1, (544) 240

- Thylakoid, (536) 97; (540) 96
 Thylakoid lumen, (542) 137
 Thylakoid membrane, (553) 109; (553) 295
 Thymine dimer, (535) 153
 Thymocyte, (546) 379
 Thyroglobulin type-1 domain, (539) 120
 Thyroid hormone, (543) 5; (555) 279
 Thyrotropin-releasing hormone receptor, (535) 125
 Tiam1, (546) 11
 TIG2, (555) 495
 Tight junction, (545) 161; (555) 638
Tigrina mutant, (553) 119
 Timing information, (548) 49
 Tissue engineering, (542) 95
 Tissue inhibitor of metalloproteinases-2, (553) 457
 Tissue polarity, (554) 363
 Tissue-specific expression, (537) 139
 T lymphocyte, (535) 82; (540) 217
 T-lymphoma invasion and metastasis, (555) 556
 tmRNA, (535) 94
 Tn-binding protein, (536) 106
 TNF receptor, (553) 360
 TNF α converting enzyme, (553) 257
 Tobacco, (540) 35; (546) 173
 Tobacco Bright Yellow 2, (533) 63
 Tobacco mosaic virus, (545) 229
 Tocopherol, (540) 35
 α -Tocopherol quinone, (535) 159
 Toeprint assay, (533) 99
 Toll/interleukin-1 receptor, (548) 103
 Toll-like receptor 4, (543) 98; (544) 129
 TOM complex, (555) 511
 Tomato, (554) 417
 δ -Tonoplast intrinsic protein, (547) 69
 γ -Tonoplast intrinsic protein, (547) 69
 Toosendanin, (555) 375
 Topoisomerase II, (554) 206
 Topology, (536) 97
 Toxicity, (539) 149
 Toxin, (538) 183; (539) 7; (541) 16; (547) 43
Toxoplasma, (555) 500
Toxoplasma gondii, (547) 80
 Transactivation, (553) 183
 Transcribed region, (554) 17
 Transcription, (534) 11; (534) 69; (538) 168; (541) 33; (546) 154; (548) 108; (549) 163; (553) 104; (555) 521
 Transcription factor, (534) 202; (535) 61; (535) 87; (537) 58; (541) 163; (545) 183; (547) 61
 Transcription factor decoy, (542) 42
 Transcription termination, (553) 95
 Transcriptional coactivator, (543) 55
 Transcriptional gene silencing, (555) 459
 Transcriptional interference, (555) 489
 Transcriptional regulation, (541) 97; (554) 17; (554) 67; (554) 433
 Transcriptional repressor, (534) 93
 Transfection, (552) 177; (552) 199; (553) 250
 Transferrin, (548) 5
 Transformation, (539) 73
 Transforming growth factor, (539) 167
 Transforming growth factor- β , (543) 25; (545) 115; (546) 133
 Transgenic *Arabidopsis*, (555) 291
 Transgenic mice, (555) 528
 Transgenic mouse, (549) 163
 Transglutaminase 2, (534) 180
 Transglycosylation, (553) 381
 Transhydrogenase, (545) 18
 Transient expression, (552) 170
 Transient receptor potential, (541) 69
 Transition state, (538) 1
 Transition state stabilization, (545) 224
 Translation, (546) 37
 Translation initiation, (533) 99
 Translation initiation factor, (533) 89
 Translation initiation factor 4E homologous protein, (554) 501
 Translation termination, (548) 97
 Translocase of inner membrane, (553) 163
 Translocase of outer membrane, (553) 163
 Translocation, (538) 101; (554) 439
 Transmembrane, (555) 79
 Transmembrane domain, (535) 39
 Transmembrane helical bundle, (552) 47
 Transmembrane α -helix, (534) 15
 Transmembrane peptide, (555) 134
 Transmembrane protein, (555) 572
 Transmembranous domain, (534) 169
 Transport, (553) 85; (555) 96
 Transport kinetics, (555) 274
 Transport protein, (555) 111
 Transport protein particle, (550) 1
 Transthyretin, (555) 279
 Trans-translation, (535) 94
 Transverse relaxation-optimized spectroscopy-nuclear magnetic resonance, (555) 144
 Transverse tubule, (542) 69
 TRAPP complex, (540) 77
 Treatment response, (533) 110
 Trehalose, (553) 387
 Trehalulose, (534) 151
 Triacylglycerol, (546) 335; (554) 165
 Triad, (542) 69
 Tricarboxylic acid cycle, (540) 141; (553) 73
 Trichostatin A, (554) 347
 Trichothecene mycotoxin, (539) 105
 Trifluoroethanol, (535) 39
 Tri-leucine vinyl sulfone, (542) 89
 Trimethylamine *N*-oxide reductase, (539) 61
 2'-*O*-Trinitrophenyl nucleotide binding, (543) 31
 Triose phosphate isomerase barrel, (544) 103
 Triplet expansion, (549) 21
Triticum aestivum, (547) 151
 Tritrpticin, (540) 229
 tRNA^{Arg}, (547) 197
 tRNA^{Leu}, (534) 139
 Tropomodulin, (547) 228
 TRPC, (541) 69
 True slime mold, (546) 340
 Truncation, (537) 166
Trypanosoma, (542) 12
Trypanosoma brucei brucei, (538) 35; (554) 301
Trypanosoma cruzi, (554) 201
 Trypanosomal, (553) 131
 Trypanosome alternative oxidase, (538) 35
 Tryptophan, (552) 35; (555) 134
 T-type calcium channel, (547) 37
 Tubulin, (534) 115; (538) 53; (539) 34; (546) 365
 Tumor cell invasion, (546) 81
 Tumor growth, (553) 213
 Tumor necrosis factor, (535) 190
 Tumor necrosis factor- α , (533) 105; (535) 205; (536) 25; (544) 214; (554) 275
 Tumor necrosis factor- α converting enzyme, (554) 275
 Tumor necrosis factor alpha, (551) 8
 Tumor necrosis factor associated factor-6, (553) 190
 Tumor necrosis factor receptor, (553) 403
 Tumor necrosis factor receptor-associated factor 3, (553) 403
 Tumor suppressor, (546) 159; (553) 277
 Tumor suppressor gene, (539) 156; (546) 59
 Tumorigenesis, (540) 21
 Tumor-specific promoter, (546) 315
 Tumourigenesis, (546) 11
 Tungstate, (542) 84
 Tungsten, (555) 606
 Twin-arginine signal peptide, (539) 61; (549) 141
 Twin-arginine translocase (Tat) pathway, (534) 156
 Twin-arginine translocation, (537) 42; (550) 18
 Twin-arginine translocation protein transport system, (549) 141
 Two-color ratiometric dye, (538) 25
 Two-component system, (555) 170
 Two-dimensional crystallization, (555) 160
 Two-electrode voltage clamp, (549) 115
 Two-hybrid, (533) 14; (555) 464
 Two-hybrid analysis, (544) 160
 Two stage model, (555) 122
 Type 2 diabetes, (542) 65; (554) 450
 Type II collagen, (545) 115

Type III secretion, (554) 271
 D-Tyr-tRNA^{Tyr} deacylase, (552) 95
 Tyrosine, (545) 224
 Tyrosine kinase, (534) 133
 Tyrosine phosphatase, (546) 140
 Tyrosine phosphorylation, (535) 71; (536) 71; (537) 203; (538) 145; (540) 181; (549) 14

U

U0126, (551) 139
ubiF, (543) 174
 Ubiquinone, (543) 174; (555) 13
 Ubiquitin, (535) 77; (536) 220; (541) 102; (545) 229; (549) 135; (550) 23; (554) 77; (554) 501
 Ubiquitin conjugating enzyme, (554) 501
 Ubiquitin conjugating enzyme 9, (538) 197
 Ubiquitin-C-terminal hydrolase, (535) 77
 Ubiquitin fusion degradation, (555) 397
 Ubiquitin interaction motif, (535) 77
 Ubiquitin ligase, (544) 214
 Ubiquitin-like domain, (553) 151
 Ubiquitin-like modification, (551) 71
 Ubiquitin-like protein, (546) 374
 Ubiquitin pathway associated domain, (535) 77
 Ubiquitin–protein ligase, (554) 73
 Ubiquitin–protein ligase, (554) 501
 Ubiquitin system, (553) 28
 Ubiquitination, (543) 125; (553) 190; (553) 195
 Ubiquitous expression, (555) 623
 UCP3, (544) 138; (555) 631
 UDP-*N*-acetylglucosamine:α(1,6)-D-mannoside β(1,6)-*N*-acetylglucosaminyltransferase, (554) 515
 Ultraviolet, (553) 90
 Ultraviolet radiation, (540) 125; (554) 427
 UNC119, (534) 26
 Uncoupling protein, (543) 5
 Unfolded protein response, (553) 45
 Unfolding intermediate, (551) 119
 Unfolding/refolding, (535) 55
 Unidirectional inhibition, (549) 39
 Unstructured protein, (554) 240
 3' Untranslated region, (554) 59
 5'-Untranslated region, (546) 329
 Upstream binding factor, (548) 79
 Urea denaturation, (551) 119
 Urea transport, (547) 69
 Urease, (555) 367
 Urokinase, (553) 11
 Urokinase receptor, (553) 11
 Utrophin, (538) 168
 UV Raman spectroscopy, (552) 35

Vascular cell adhesion molecule-1, (539) 45
 Vascular development, (533) 25
 Vascular disease, (533) 25
 Vascular endothelium, (535) 87
 Vascular regeneration, (544) 86
 Vascular smooth muscle, (554) 399; (555) 591
 Vascular smooth muscle cell, (533) 25; (535) 190; (552) 130; (554) 77
 V-ATPase, (535) 119; (545) 76
 Vav2, (533) 35
 VCAM-1, (550) 89
 Very long chain polyunsaturated fatty acid, (553) 440
 Vesicle associated membrane protein/synaptobrevin, (542) 132
 Vesicle fusion, (555) 126
 Vesicular transport, (540) 217
Vibrio cholerae, (555) 638
Vibrio cholerae cytolysin, (553) 229
Vicia villosa lectin, (536) 106
Vipera ammodytes ammodytes, (553) 309
 Viral fusion, (535) 23
 Viral fusion protein, (533) 47
 Viral ion channel, (552) 61
 Viral K⁺ channel, (552) 7
 Viral matrix protein, (552) 17
 Viral membrane protein, (536) 56; (552) 39
 Viral protease, (533) 89
 VirB protein, (545) 183
 Viroporin, (535) 34; (552) 68
 Virulence, (554) 224
 Virulence factor, (539) 105
 Virus, (552) 61
 Virus budding, (552) 28
 Virus-like particle, (536) 120
 Virus production, (548) 37
 Visual pigment, (553) 90
 Vitamin E, (540) 35
Vitis vinifera, (544) 210
 Vma10p, (546) 395
 Voltage-dependent anion channel, (538) 183
 Voltage-dependent ion channels, (555) 62
 Voltage-gated channel, (535) 29
 Voltage-gated potassium channel, (539) 7
 Voltammetry, (539) 91
 Volume regulation, (551) 20; (554) 494
 Volumetric properties, (554) 351
 Von Willebrand factor A-domain, (552) 91
 V protein, (545) 177
 VPS27, Hrs, and STAM domain, (537) 171
 Vpu, (552) 39
 VRK1, (544) 176
 VRK2, (544) 176
 VRK3, (544) 176
 v-Src transformation, (543) 81

W

V

V₁ ATPase, (546) 395
 V₁ V_O ATPase, (546) 395
 Vac8, (540) 101
 VacA, (543) 184
 Vacuolar acidification, (545) 76
 Vacuolar-type ATPase, (546) 395
 Vacuole, (535) 119
 Vacuole fusion, (540) 101
 Vacuole transport, (554) 23
 Valproate, (542) 74
 Variable subunit, (549) 167

Water, (555) 79; (555) 500
 Water channel, (540) 157
 Water solubility, (555) 311
 Water stress, (554) 119
 Wavepacket, (540) 26
 WD domain, (544) 27
 Weak neurotoxin, (553) 333
 WEHI-231, (535) 113
 Werner's syndrome, (554) 55
 Western blotting, (555) 375
 WH2 domain, (552) 86
 Wheat, (540) 259; (547) 151
 White preadipocyte, (550) 163
 Whole-mount in situ hybridisation, (549) 115
 Within-class variation, (551) 3
 Wnt, (547) 1
 Wortmannin, (534) 125

Wound response, (543) 136
 WRN, (554) 55
 WT1, (540) 71; (554) 143

X

Xanthine oxidase, (551) 99
Xanthomonas citri, (552) 207
 Xanthone, (547) 217
 Xanthosine, (547) 56
 Xenobiotic, (554) 165
Xenopus, (533) 79; (547) 1
Xenopus laevis oocyte, (549) 115; (554) 219
Xenopus oocyte, (548) 43; (552) 163; (555) 274
Xenopus tropicalis, (554) 330
 xMLK2, (543) 129
 xPAK1, (543) 129
 X-ray, (552) 207; (555) 13
 X-ray crystal structure, (538) 65; (543) 11
 X-ray crystallography, (554) 462; (555) 21; (555) 51; (555) 102
 X-ray structure, (536) 106; (554) 301
 XTP, (544) 79
 Xylanase, (540) 259; (549) 147
 Xylanase inhibitor, (540) 259
 Xylem sap, (534) 82

Y

Y151M mutant, (544) 194
 Yeast, (543) 108; (544) 148
 Yeast Cell cycle, (542) 125
 Yeast display, (546) 288
 Yeast hexokinase, (554) 351
 Yeast two-hybrid, (534) 26; (540) 86; (543) 55; (554) 10
 Yeast two-hybrid screening, (538) 197
 Yeast two-hybrid system, (543) 61; (554) 289
Yersinia, (533) 35
YJR070C, (555) 464
 Y-ligation-based block shuffling, (555) 483

Z

Z curve, (540) 188
 Zebrafish, (543) 190; (549) 14; (550) 46
 Zinc, (541) 121
 Zinc finger, (534) 93
 Zinc finger protein, (535) 179; (548) 108
 Zippered structure, (533) 9
 Zn(II) binding, (533) 72
 Zonula occludens toxin, (555) 638