

Subject Index to Volume 18 (2001)

- A**
- Abbreviated New Drug Applications, 1645
 - Absorption, 1146, 1521, 1620
 - Absorption, oral, 380, 454, 950, 1720, 1734
 - Absorption potential, 1793
 - Absorptive clearance, 544
 - Acetaminophen, 398, 1728
 - α_1 -Acid glycoprotein, 389, 838
 - Acquired immunodeficiency syndrome (AIDS) drug, 859
 - Activity, 531
 - Adefovir, 234
 - Adenosine A, 531
 - Adenosine A₁ receptor, 531
 - Adhesion-molecule peptide, 329
 - Adjuvant, 709
 - Adjuvant arthritis, 217
 - β_2 -Adrenergic receptor, 1651
 - Adsorption, 352
 - AEA (anandamide), 494
 - Affinity, 531, 745, 753
 - Affinity chromatography, 1435
 - AFM (atomic force microscope), 294, 299, 398
 - Agglomerate deformation, 873
 - Agglomerate porosity, 873
 - AIDS (acquired immunodeficiency syndrome) drug, 859
 - Aldose reductase inhibitor, 565
 - Alkylglycoside, 1741
 - Allosteric interactions, 522
 - Allyl glucose, 794
 - Alveolar epithelial barrier, 253
 - Alveolar macrophages, 1405
 - AM404 (N-(4-hydroxyphenyl)-arachidonyl amide), 494
 - 3-Amidino-phenylalanine-amides, 1110
 - Amino acid decarboxylase, 1174
 - p-Aminohippurate, 573
 - 5-Aminolevulinic acid, 311
 - Amorphous, 662
 - Amorphous lactose, 112
 - Amorphous material measurement, 1081
 - Amorphous phase, 98
 - Amorphous state, 1766
 - Amphotericin B, 344
 - Analgesia, 336
 - Anandamide (AEA), 494
 - Anandamide transport inhibitors, 494
 - Androstrenol, 146
 - Angiogenesis, 1613
 - Anisotropy, hardness, 674
 - ANNs (artificial neural networks), 1049
 - Antiarrhythmic, 1528
 - Antibodies, endogenous/natural, 734, 753
 - Antimicrobial activity, 937
 - Antimicrobials, stability of, 615
 - Antimicrotubule drugs, 587
 - Antisense oligonucleotides, 1788
 - Antitumor activity, 814
 - AP (absorption potential), 1793
 - Apomorphine, 1509, 1627
 - Apoptosis, 907
 - Apparent affinity, 171
 - Area-under-the-curve, 361
 - Arthritis, adjuvant, 217
 - Artificial neural networks (ANNS), 1049
 - 2-Arylpropionic acids, 151
 - Aspartame, 267
 - Aspirin, 299
 - Assay, 408
 - Atomic force microscopy (AFM), 294, 299, 398
 - Atovaquone, 380
 - ATP-hydrolysis, 1660
 - Atropine, 1220
 - Automation, 1781
 - Autoradiography, 494
 - 3'-Azido-3'-deoxythymidine (AZT), 467
- B**
- BAC (benzalkonium chloride) analogues, 937
 - BAL (bronchoalveolar lavage), 1685
 - Barbiturates, 1138
 - Basolateral membranes, 1528
 - BCOP (bovine corneal opacity and permeability) assay, 937
 - BDNF (brain-derived neurotrophic factor), 261
 - Benserazide, 1174
 - Benzalkonium chloride (BAC) analogues, 937
 - Bergamottin, 177
 - Bezold-Jarisch reflex, 838
 - Biantennary branching glycan, 389
 - Bile salts, 45, 1489
 - Bioadhesion, 1521
 - Bioavailability, 166, 394, 734, 1131, 1521, 1620, 1645
 - Biodegradable, 548
 - Biodegradable branched polyester, 352
 - Biodegradable microspheres, 1405
 - Biodistribution, 1035, 1411
 - Bioequivalence, 593, 728, 734, 1645
 - Biomolecule characterization, 131
 - Biopharmaceutical classification system, 742
 - Biopharmaceutics, 1426
 - Biosensors, 943
 - Biotin, 950
 - Bisphosphonates, 646
 - Bleomycin, 243
 - Blood flow rate, 1190
 - Blood glucose, 608, 1741
 - Blood-brain barrier, 183, 587, 957, 1091, 1542, 1660
 - Blood-cerebrospinal fluid barrier, 1542
 - BMP (bone morphogenetic protein)-2, 1746
 - Bonding mechanisms, 203
 - Bone marrow, 9
 - Bone morphogenetic protein (BMP)-2, 1746
 - Bovine corneal opacity and permeability (BCOP) assay, 937
 - Bovine serum albumin, 878
 - Brain cancer, 899
 - Brain perfusion, *in situ*, 183
 - Brain targeting, 1157
 - Brain-derived neurotrophic factor (BDNF), 261
 - Breakup, 689
 - Bronchoalveolar lavage (BAL), 1685
 - Burst release, 117
 - t-Butyl hydroperoxide, 1455
- C**
- Caco-2 cells, 171, 191, 316, 374, 544, 713, 950, 1102, 1110, 1138, 1420, 1734
 - Cadherin, 446
 - Caelyx®, 29
 - Calcitonin, 1741
 - Calcium-channel blockers, 157
 - Calibration, 361
 - Calorimetry, differential scanning, 1448
 - cAMP (cyclic adenosine monophosphate), 1651
 - Canalicular multispecific organic anion transporter (cMOAT/MRP2), 579
 - Capacity factor, 104
 - Capecitabine, 1190
 - Capillary electrophoresis, 389, 886
 - CAR (constitutive androstane receptor), 146
 - Carbamate, 859
 - Carbamazepine, 734
 - Carbapenems, 1391
 - Carbopol, 1586
 - Carbopol® 934P (C934P), 1638
 - Carboxylate, 814
 - Carboxymethylpullulan, 217
 - Cardiovascular drugs, 415
 - Carnitine, 439
 - Carnitine transporter, 439
 - Carnosine, 807
 - Cationic microparticles, 709, 1476
 - Cationic polymers, 928
 - Cavitation, 1514, 1694
 - Cell culture, 1138
 - Cell lines, 9
 - Cell targeting, 971
 - Cellular uptake, 1550
 - Cellulose, microcrystalline, 480, 1562
 - Central composite design, 886
 - Cephalosporins, 1391
 - Cephameycins, 1391
 - Ceramides, 992
 - Cerebrospinal fluid, 500
 - Cetirizine, 694
 - Cetrorelix, 771
 - CFD, 761
 - Chaos, 415
 - Charged drugs, 1586
 - Chemical enhancer, 1018
 - Chemotherapy, 243
 - Chitosan, 427, 823
 - CHO cells, 950
 - Cholinesterase, 1435
 - Choroid plexus, 807
 - Choroid plexus epithelial cells, 16
 - Chromatography, affinity, 1435
 - Chromatography, inverse gas, 662
 - Chromatography, vesicular electrokinetic, 104
 - Chrysin, 374
 - Chylomicrons, 510
 - Ciclopirox, 1468
 - Cimetidine, 742
 - Cisplatin, 1035
 - Clinical trials, 1210
 - Clodronate, 1550
 - cMOAT/MRP2 (canalicular multispecific organic anion transporter), 579
 - CNS (central nervous system) drugs, 415
 - Coenzyme Q₁₀, 287
 - Colloidal system, 460
 - Colloids, 323
 - Colon 26, 243
 - Colon drug delivery, 557
 - Colon specific drug delivery, 557
 - Compaction, 281
 - Comparative modeling, 1083
 - Complement activation, 1
 - Complement receptors, 1
 - Compression shear strength, 873
 - Computer simulation, 761
 - Concanavalin A, 794
 - Confocal, 1102
 - Confocal laser scanning microscopy, 29
 - Conjugates, 217, 557
 - Constitutive androstane nuclear receptor (CAR), 146
 - Controlled release, 454, 899, 1586, 1593, 1600, 1728
 - Correlation, 1728
 - Corrugated, 1570
 - Co-solvent, 1146
 - Cosurfactant, 1049
 - Coulombic interactions, 667
 - C934P (carbopol® 934P), 1638
 - CpG adjuvant, 1476
 - Craving, 537
 - Cryopreservation, 403, 1012
 - Crystal, 299
 - Crystal forms, 859
 - Crystal surface, 398
 - Crystalline formulation, 1483
 - Crystalline pharmaceuticals, 98
 - Crystallization, macromolecular, 1483
 - Crystallization, supercritical fluid, 852
 - Cyclic adenosine monophosphate (cAMP), 1651
 - Cyclic voltammetry, 702
 - Cyclodextrins, 667, 886, 1167, 1226
 - Cyclooxygenase-2, 151
 - N⁶-Cyclopentyladenosine, 531

- Cyclosporin A, 454, 713
 Cyclosporine, 39
 CYP1C19, 615
 CYP2C19 genotype, 721
 CYP3A, 1720
 CYP3A4, 622, 652, 1102
 Cytochrome P450, 1232
 Cytokines, 1083
- D**
- Dansyl-L-asparagine, 520
 Decomposition, 267
 Deconvolution, 1521
 Degradation, 234
 Dehydration, 267
 Dendrimers, 928
 Deoxyribonuclease (DNAase) I, 427
 Deoxyribonucleic acid (DNA), 61, 246
 Deoxyribonucleic acid (DNA), emulsion formulation of, 1480
 Deoxyribonucleic acid (DNA), plasmid, 67
 Deoxyribonucleic acid (DNA) damage, 846
 Dermal, 367, 593
 Dermatopharmacokinetics, 1472
 Desensitization, 1651
N-Desethylxybutynin, 1029
 Design, 1210
 Detection, 98
 Dextran methacrylate, 1593
 Diabetic rats, 191
 Diagnostic imaging, 640
 Dialysis, 45
 Dialysis, equilibrium, 694
 Diblock polymer, 323
 Differential scanning calorimetry, 1448
 Diffraction, X-ray, 1480
 Diffractometry, X-ray powder, 1448
 Diffusion, 45, 361, 1018, 1489, 1796
 Diffusion coefficient, 1006
 Digoxin pharmacokinetics, 1400
 1,4-Dihydropyridines, 157, 987
 Dimethyl- β -cyclodextrin, 608
 1,2-Dioleoyl-*sn*-glycero-3-phosphoethanolamine (DOPE), 54
 1,2-Dioleoyl-*sn*-glycero-3-trimethylammonium-propane (DOTAP), 54
 Dislocation etch pits, 674
 Dispersive surface energy, 662
 Dissolution, 299, 1061
 Distribution profiles, 694
 Distribution volume, 646
 DNA (deoxyribonucleic acid), 61, 246
 DNA (deoxyribonucleic acid), emulsion formulation of, 1480
 DNA (deoxyribonucleic acid), plasmid, 846
 DNA (deoxyribonucleic acid) damage, 846
 DNA (deoxyribonucleic acid) delivery, 709
 DNase (deoxyribonuclease)I, 427
 Dodecylmaltoside, 608
 Dogs, intestinal-vascular access port (IVAP), 1720
- DOPE (1,2-dioleoyl-*sn*-glycero-3-phosphoethanolamine), 54
 Dose, 745
 DOTAP (1,2-dioleoyl-*sn*-glycero-3-trimethylammonium-propane), 54
 Doxorubicin, 29, 761
 Drug, 1056
 Drug absorption, 742, 1138
 Drug carrier, 323, 403, 745
 Drug delivery, 23, 336, 548, 761, 1096, 1514, 1556
 Drug delivery, ophthalmic, 1497
 Drug delivery system, 914, 1035
 Drug development, 131, 1071
 Drug interaction, 432
 Drug loading, 287
 Drug protein conjugates, 29
 Drug release, 1426
 Drug targeting, 788
 Drug-drug interaction, 622, 1024, 1174
 Drug/lipid ratio, 336
 Dry powder aerosol, 1570
 Dry powder inhalation, 1405
 Dynamic molecular surface area, 579
 Dynamic vapor sorption, 112
- E**
- E-cadherin, 446
 Effect alterations, 838
 Effect of granulation, 1562
 Efflux, 1110, 1734
 Efflux, sinusoidal, 1119
 Elastic liquid-state, 1627
 Electromigration, 1701, 1708
 Electron microscopy, 287, 992
 Electron microscopy, freeze fracture, 1480
 Electron microscopy, transmission, 1012
 Electron spin resonance (ERS) imaging, 525
 Electro-osmosis, 311, 1701, 1708
 Electrophoresis, capillary, 389, 886
 Electroporation, 61
 Electrotransport, 1701
 Enantiomeric separation, 886
 Enantiomers, 1029
 Enantiomers, fluriprofen, 151
 Enantio-selectivity, 389
 Enantiotropes, 682
 Endocytosis, 1042
 Endogenous/natural antibodies, 734, 753
 Endothelial barrier, 23
 Endothelial cells, 9
 Endothelial progenitor cells, 9
 Energy density, 1694
 Enhanced permeability and retention effect (EPR), 1613
 Enhancer cell, 1440
 Enhancers, 10–18
 Enteric coating, 454
 Enterocyte, 1232
 Enzyme induction, 374
 Eperisone, 1131
 Epicatechin, 1420
 Epidermal lipids, 992
 EPR (enhanced permeability and retention effect), 1613
 Equilibrium dialysis, 694
- ERS (electron spin resonance) imaging, 525
 Esterase-like activity, 632, 1435
 Etch pits, 398
 Etch pits, dislocation, 674
 Etching pattern, 398
 Ethanol, 125
 Eudragit RS/RL, 304
 Eusolex® 232, 1440
 Expired gas, 125
 Extravasation, 1042
 Extrusion-spheronization, 480
 Eye, 1497
- F**
- FA (fraction absorbed), 1793
 Factor Xa inhibitors, 1734
 FCS (fluorescence correlation spectroscopy), 928
 First-pass effect, 177, 1720
 FISH (fluorescence in situ hybridization), 1655
 Fisher information matrix, 83
 Flavonoids, 374, 1420
 Flufenen, 886
 Flow cytometer, 39
 Fluorescein, 565, 1542
 Fluorescence correlation spectroscopy (FCS), 928
 Fluorescence in situ hybridization (FISH), 1655
 Fluorouracil (5-FU), 1190
 Fluriprofen enantiomers, 151
 Folic acid, 316
 Food effects, 1185
 Formulation characterization, 196
 Fourier transform infrared (FTIR) system, 125
 Fractal, 1056
 Fraction absorbed (FA), 1793
 Fracture roughness, 867
 Franz cells, 1440
 Freeze fracture electron microscopy, 1480
 Freeze-drying, 90, 196, 474, 1448
 Freezing, 90
 Freezing point depression, 1226
 Frozen, 1448
 FTIR (Fourier transform infrared) system, 125
 5-FU (fluorouracil), 1190
 Furanocoumarin, 177, 432
 Furosemide, 544
 Furoxans, 157, 987
- G**
- Gabapentin, 1126
 β -Galactosidase, 1091
 Gamma scintigraphy, 1146
 Gastrointestinal (GI), 1793
 Gastrointestinal reservoir of HIV (human immunodeficiency virus), 467
 Gastrointestinal transit, 829, 1146
 Gel, 1586
 Gel retardation, 427
 Gender, 394
 Gene delivery, 427, 922, 1091
 Gene regulation, 1631
 Gene transcription, 408
 Gene transfer, 54
 Generic drugs, 1645
 Genetic neural networks (GNNs), 1049
- Genetic variants, 389
 Genotype, 615, 1400, 1651
 Gentamicin, 1556
 GI (gastrointestinal), 1793
 GL331, 846
 Glass transition, 474
 Glass transition relaxation, 1766
 Glass transition temperature, 1226
 Glassy state, 1766
 Gliadin, 1521
 Glucose, 608
 Glucose binding affinity, 794
 Glucuronidation, 374
 L-Glutamic acid uptake transport, 16
 Glycan, biantennary branching, 389
 Glycine, 1448
 p-Glycoprotein (P-gp), 39, 171, 183, 432, 544, 587, 800, 907, 957, 1102, 1535, 1720
 p-Glycoprotein (P-gp) modulators, 587
 GlySar, 807
 GNNs (genetic neural networks), 1049
 GnRH (gonadotropin-releasing hormone)-analogues
 Gonadotropin-releasing hormone (GnRH)-analogues
 Granulation, 1562
 Grapefruit, 432
 Grapefruit juice, 177
 GRID program, 1759
 [³⁵S]Guanosine 5'-(λ -thio)triphosphate, 494
 Guidances, 1645
 Guinea pig, 500
 Guinea pig, hairless, 1788
 GV150013X, 380
- H**
- Hairless guinea pigs, 1788
 Half lives, in vivo, 1774
 Hanson Microette® apparatus, 1440
 Hardness anisotropy, 674
 HAV (His-Ala-Va)-peptides
 Healthy volunteers, 1203
 Heart, 1535
 Heart rate variability, 1220
 Heckel plot, 281
 HEK293 cells, 146
Helicobacter pylori, 615
 Heparin, 1151, 1638
 Hepatitis B, 403
 Hepatoma, 761
 Hepatoma cells, 922
 Heterogeneity, 1061
 High throughput screening, 131
 High-affinity binding sites, 522
 Highly-variable drugs, 728
 His-Ala-Va (HAV)-peptides
 HIV (human immunodeficiency virus), gastrointestinal reservoir of, 467
 HIV (human immunodeficiency virus)-1, 1096
 H-MAP (hydroxymethyl amino propionic acid), 1685
 HMG-CoA (3-hydroxy-3-methylglutaryl coenzyme A), 800
 HMG-CoA (3-hydroxy-3-

- methylglutaryl coenzyme A) reductase inhibitor, 622
 Hormones, 415
 HT29-MTX, 1138
 Human, 394, 1029
 Human immunodeficiency virus (HIV), gastrointestinal reservoir of, 467
 Human immunodeficiency virus (HIV)-1, 1096
 Human serum albumin, 520, 632, 1435
 Human skin, 1634
 Hybrid drugs, 157, 987
 Hydration efficiency, 656
 Hydrocortisone, 999
 Hydrogel, 548, 689, 1593
 Hydrogen peroxide, 1455
 Hydrophobic drugs, 510
 Hydrophobicity, 104
 Hydropropyl cyclodextrin, 667
 Hydroxyethyl starch, 1600
 Hydroxymethyl amino propionic acid (H-MAP), 1685
 3-Hydroxy-3-methylglutaryl coenzyme A (HMG-CoA), 800
 3-Hydroxy-3-methylglutaryl coenzyme A (HMG-CoA) reductase inhibitor, 622
N-(4-Hydroxyphenyl)-arachidonyl amide (AM404), 494
- I**
- IC₅₀ (inhibitory concentration of 50%), 652
 Idarubicin, 1535
 IGF-1 (insulin-like growth factor-1), 1203
 IGF1BP (insulin-like growth factor binding proteins), 1203
 IκB, 1631
 IKK (IκB kinases), 1631
 Immediate release, 1185
 Immortalized cell lines, 16
 Immune tissues, 217
 Immunization, mucosal, 352
 Immunosuppressant, 217
 Immunotherapy, 899
 In vitro, 587, 1728
 In vitro metabolism/transporter interactions, 1071
 In vitro models, 16, 253
 In vitro transfection, 427
 In vivo, 1613, 1728
 In vivo half lives, 1774
 In vivo metabolism/transporter interactions, 1071
 Inclusion complex, 608, 1578
 Indirect response model, 537, 1220
 Indomethacin, 243, 323
 Indoxyl sulfate, 520
 Inducible nitric oxide synthase, 151, 1167
 Inflammation, 1083
 Inflammatory bowel disease, 788
 Inflammatory response, 780
 Inhalation aerosol, 771
 Inhibitor, 488
 Inhibitory concentration of 50% (IC₅₀), 652
 Inner blood-retinal barrier, 1669
 Insulin, 548, 1620, 1677, 1685, 1741
 Insulin, nasal, 608
 Insulin aggregation, 1753
 Insulin-like growth factor binding proteins (IGFBP), 1203
 Insulin-like growth factor-1 (IGF-1), 1203
 Insulin-transferrin (In-Tf) conjugate, 191
 Intercellular adhesion molecule-1, 329
 Intercellular junction modulation, 446
 Intercellular junctions, 446
 Interleukin-2, 899, 1461
 Interparticle bonding, 281
 Intestinal absorption, 823, 1126, 1638
 Intestinal cells, 374
 Intestinal epithelium, 467
 Intestinal mucin, 1489
 Intestinal permeability, 742, 1734
 Intestinal-vascular access port (IVAP) dogs, 1720
 Intestine, 1131
 In-Tf (insulin-transferrin) conjugate, 191
 Intracellular distribution, 29
 Intra-gastric drug distribution, 460
 Intra-gastric pH, 615
 Intraocular pressure, 494
 Intrasubject variability, 166
 Intravital microscopy, 23
 Inverse gas chromatography, 662
 Ion exchange, 304
 Ion pairing, 702
 Ion transport, 1012
 Ionic strength, 304, 667
 Iontophoresis, 311, 1012, 1509, 1627, 1634, 1701, 1708, 1713
 Irinotecan, 814
 ISIS 2302, 1788
 Isoniazid, 1405
 Isothermal step melting, 1562
 ITIES (two immiscible electrolyte solutions), 702
 Itraconazole, 622
 Ivabradine, 83
 IVAP (intestinal-vascular access port) dogs, 1720
- K**
- Ketoprofen, 980
 Ketoprofen binding, 632
 Kinases, 1631
 Kinetics, 234, 267
Klebsiella pneumoniae, 780
 Kohlrausch-Williams-Watts stretched exponential function, 256
 Kupffer cells, 1
- L**
- Labor economics, 224
 Labor supply, 224
 β-Lactamases, 1391
 L-Lactic acid transport, 1669
 Lactone, 814
 Lactose, 662
 Lactose, amorphous, 112
 Lansoprazole, 721
 Lauric acid, 1634
 L-dopa, 1174
 Lecithin-based oil-water microemulsions, 344
 Lectin-microsphere conjugates, 829
 Leresetron, 838
 Leukocytes, 780
 Levodopa, 1174
 Lidocaine, 367
 Lidocaine electrotransport, 1708
 Ligand, 971
 Ligand binding, 1774
 Light, 1455
 Lipid bilayer, 894
 Lipid extraction, 992
 Lipid-based drug delivery, 510
 Lipid-water partitioning, 1781
 Lipophilic drugs, 380, 1006
 Lipophilicity, 646, 652, 694, 702
 Lipopolysaccharide, 1167
 Lipoproteins, 510
 Lipoproteins, low-density, 914
 Lipoproteins, reconstituted lactosylated high-density, 403
 Liposome stability, 914
 Liposomes, 1, 67, 238, 246, 316, 460, 780, 894, 914, 1042, 1781
 Liquid meal, 460
 LiquiVent®, 1556
 Liver cancer, 899
 LMWC (low molecular weight chitosan), 427
 LMWH (low molecular weight heparin), 1638
 Local anesthetics, 336, 593
 Logistic regression, 537
Lotus tetragonolobus lectin, 829
 Low molecular weight chitosan (LMWC), 427
 Low molecular weight heparin (LMWH), 1151, 1638
 Low-density lipoprotein, 914
 Lung, 1556
 Lung injury markers, 1685
 Luteinizing hormone-releasing hormone analogue, 1634
Lycopersicon esculentum L., 829
 Lymph, 1620
 Lymph node targeting, 640
 Lymphatic duct cannulation, 467
 Lymphocyte function-associated antigen-1, 329
 Lyophilization, 344
 Lyophilized formulations, 256
 L-Lysine salts, 281
- M**
- Macromolecular crystallization, 1483
 Macrophages, 1, 1167, 1550
 Madin-Darby-Canine Kidney (MDCK) monolayers, 446
 Magainin, 894
 Magnetic resonance imaging, 460
 Magnetite, 640
 Maltodextrin, 656
 MAP (modified absorption potential), 1793
 Markers of lung injury, 1685
 Mass balance, 131
 Mass spectrometry, 131, 1461
 Matrix, 1796
 MCT1, 1669
 MDCK (Madin-Darby-Canine Kidney) monolayers, 446
 MDR (multidrug resistance), 432, 800, 1481
 mdrl knockout mice, 1660
 mdrla(-/-) mice, 183, 957
 MDR1, 1400
 MDR1P-glycoprotein, 1660
 Mean dissolution time, 1061
 Melting point (MP), 1793
 Melting temperature, 281
 Membrane affinity, 1781
 Membrane composition, 1781
 Membrane lipids, 992
 Membrane permeation, 943
 Membrane vesicle, 1126
 Menstrual cycle, 394
 Metabolism, 1131, 1420, 1550
 Metabolism/transporter interaction potential, 1071
 Metabolite identification, 131
 Methionine, 1461
 Methionine sulfoxide, 1455
 Methotrexate, 579
 3-O-Methylidopa, 1174
 d-Methylphenidate, 1185
 Mice, mdrl knockout, 1660
 Mice, mdrla(-/-), 183, 957
 Mice, nude skin, 600
 Micelles, 45
 Michaelis-Menten constant, 171
 Microcrystalline cellulose, 480, 1562
 Microdialysis, 361, 367, 593, 980, 1542, 1607
 Microemulsion, 367, 454, 593
 Microindentation, 867
 Microparticles, 971, 1476
 Microprojection array, 1788
 Microscopy, atomic force (AFM), 294, 299, 398
 Microscopy, confocal laser scanning, 29
 Microscopy, intravital, 23
 Microscopy, transmission electron, 1012
 Microsomes, 1131
 Microsphere preparation, 1753
 Microspheres, 294, 788, 878, 1600, 1746
 Microthermal analysis, 294
 Microtubules, 246
 Microvascular extravasation, 23
 Milling, 662
 Modeling, 1018
 Modified absorption potential (MAP), 1793
 Modulated temperature DSC, 294
 Modulation of intercellular junctions, 446
 Molecular descriptors, 1049
 Molecular dynamics, 1083
 Molecular mobility, 256
 Molecular stability, 1774
 Molt-3 T-cells, 329
 Morphine, 957
 MP (melting point), 1793
 Mrp3, 1119
 MRP (multidrug resistance-associated proteins), 39, 565, 1119, 1542
 MRP (multidrug resistance-associated transporters), 1102, 1400
 MTT assay, 427
 Mucin, 45
 Mucoadhesion, 829
 Mucosal immunization, 352
 Mucosal toxicity, 937

- Mucus layer, 1138
 Multidrug resistance (MDR), 432, 800, 1481
 Multidrug resistance-associated proteins (MRP), 39, 565, 1119, 1542
 Multidrug resistance-associated transporters (MRP), 1102, 1400
 Multidrug resistance-sensitive drugs, 183
 Multimolecular complexes, 928
- N**
- N to B transition, 522
 Nail penetration model, 1468
 Nanocapsules, 1411
 Nanoparticles, 352, 1096, 1521, 1613
 Nanospheres, 640, 788
 Naproxen derivatives, 600
 Naratriptan, 1210
 Nasal insulin, 608
 Near infrared spectroscopy, 112
 Neural networks, 1049
 Neuropeptides, 807
 Neurotransmitter, 1528
 New Drug Applications, 1645
 NF- κ B (nuclear transcription factor- κ B), 1631
 Nicotine, 537
 Nifedipine, 177
 Niosomes, 656
 Nitric oxide (NO), 987, 1167
 Nitric oxide (NO) donors, 157, 987
 Nitric oxide (NO) synthase, 151, 1167, 1607
 7-Nitroindazole, 1607
 NMR (nuclear magnetic resonance), 694, 886
 NO (nitric oxide), 987
 NO (nitric oxide) donors, 157, 987
 NO (nitric oxide) synthase, 151, 1167, 1607
 Nocodazole, 246
 Nonionic surfactant, 54
 NONMEM, 537
 Nonsteroidal anti-inflammatory drugs (NSAIDs), 980
 Norvir, 859
 NSAIDs (nonsteroidal anti-inflammatory drugs), 980
 Nuclear magnetic resonance (NMR), 694, 886
 Nuclear receptor constitutive androstane (CAR), 146
 Nuclear transcription factor- κ B, 1631
 Nude skin mice, 600
 Numerical integration, 1426
- O**
- Octanol/water partition coefficient, 104, 579
 Ocular transport prediction, 1497
 OK cells, 573
 Oligonucleotides, 928
 Olvanil, 494
 Omeprazole, 615, 721
 Once-a-day dosing, 454
 Onychomycosis, 1468
 Ophthalmic drug delivery, 1497
 Ophthalmology, 1497
- Opsonins, 1
 Optimal design, 83
 Oral absorption, 380, 454, 950, 1720, 1734
 Oral delivery, 191
 Oral protein delivery, 964
 Oral route, 829
 Oral targeted delivery, 316
 Organelle-specific markers, 29
 Organic anion transport systems, 573
 Organic cation transporters, 1528
 Osmotic pressure, 1226
 Osteoporosis treatment, 964
 Osteotropic drug delivery system, 646
 Oxamide moiety, 1110
 Oxidation, 1455, 1461
 Oxidative stress, 632
 Oxybutynin, 1029
- P**
- Paclitaxel, 907
 Paracetamol, 674, 867
 Parathyroid hormone, 964
 Parenchymal liver cells, 403
 Parkinson's disease, 1509, 1713
 Partition coefficient, 1006
 Passive diffusion, 1012
 PDLA, 323
 PEG chain length, 1411
 PEG-BDNF, 261
 PEGylation, 794
 PEGylated nanoparticles, 1157
 Penetration enhancers, 943
 Penicillin, 1391
 PEPT2, 807
 Peptide transporters, 713, 807
 Perflubron, 1556
 Perfused liver, 1119
 Peripheral blood mononuclear cells, 1651
 Permeability, 544
 Permeation, 304
 Peroral delivery, 823
 Peroxodisulfate, 1461
 Peyer's patches, 467
 P-glycoprotein (P-gp), 39, 171, 183, 432, 544, 587, 800, 907, 957, 1102, 1535, 1720
 P-glycoprotein (P-gp) modulators, 587
 pH, 311
 pH, intragastric, 615
 pH, of skin, 525
 pH changes, 90
 pH dependence, 1781
 pH gradients, 525
 Pharmacodynamics, 83, 415, 1210, 1220, 1607, 1677
 Pharmacokinetic interaction, 177
 Pharmacokinetics, 67, 131, 166, 361, 367, 394, 500, 593, 608, 721, 745, 753, 814, 1029, 1185, 1203, 1210, 1220, 1426, 1613, 1677, 1720, 1728, 1741
 Pharmacy workforce, 224
 Phenytoin, 394
 Phosphate buffers, 90
 Phosphatidylcholine, 1489
 Phosphatidylcholine liposomes, 694
 Phosphatidylserine, 1
 Phospholipid, 45
 Phosphonates, 234
- 9-(2-Phosphonylmethoxyethyl)-adenine (PMEA), 403
 Phosphorothioate oligonucleotide, 1096
 Photodynamic therapy, 311
 Physical characterization, 480
 Physical properties, 852
 Physical state of water, 1562
 Physicochemical characterization, 287
 Physiologically based pharmacokinetic model, 1190
 Piecewise cubic interpolants, 1426
 Pigs, 823, 1638
 Pivalic acid, 439
 PK drug-drug interaction, 1174
 Plasma clearance, 646, 1411
 Plasma protein binding, 957
 Plasma stability, 1411
 Plasmid DNA, 67
 Plasticity, 274
 Plasticizer, 1759
 PLG, 709, 1476, 1600
 PLGA, 1746
 PLS analysis, 600
 PMEA, 403
 PMMA, 1613
 Pneumonia, 780
 Point-area deconvolution, 1426
 Poloxamer, 1468
 Polyactide-co-lycolide, 709, 1476, 1600
 Poly(amidoamine) dendrimers, 23
 Polycarboxyl-cysteine conjugate, 211
 Polydiacetylene, 943
 Poly(D,L-lactide), 294, 323, 878
 Poly(D,L-lactide-co-glycolide), 1746
 Poly(D,L-lactide-poly(ethylene glycol) microspheres, 117
 Polyester, branched biodegradable, 352
 Poly(ethylene glycol), 23, 54, 640, 878, 1042, 1146
 Poly(ethylene glycol) 400, 1146
 Poly(ethylene glycol) glycolation, 794
 Poly(ethylene glycol)-brain derived neurotrophic factor, 261
 Poly(ethyleneglycol) chain length, 1411
 Poly(isohexylcyanoacrylate) nanoparticles, 467
 Poly(lactide-co-glycolide), 709, 1476, 1600
 Polymer degradation, 117
 Polymer microspheres, 899
 Polymeric micelles, 323, 1035
 Poly(methylmethacrylate), 1613
 Polymorph, 682
 Polymorphic purity, 852
 Polymorphism, 859
 Poly(*N*-vinyl-2-pyrrolidone), 323
 Poly(rac-lactide)-poly(ethylene glycol) copolymers, 1411
 Polysorbate 80, 1157
 Poorly water-soluble drugs, 1146
 Population analysis, 83
 Population pharmacokinetic model, 980
 Population pharmacokinetics, 75
 Population PK/PD, 537
 Porcine hoof, 1468
 Pore structure, 1562
- Porosity, 274, 1796
 Potentiometry, 694
 Power spectral analysis, 1220
 Pravastatin, 622
 Prediction, 380
 Pregabalin, 1126
 Prilocaine hydrochloride, 367
 Primary active transport, 579
 Probenecid, 1542
 Procaterol, 1651
 Processing induced disorder, 662
 Prodrugs, 234, 531, 557
 Progesterone, 211, 294
 L-Proline uptake transport, 16
 Proniosomes, 656
 Prostaglandin E₁ analogue, 1578
 Protamine sulfate, 922
 Protein, 1570, 1593, 1600, 1620
 Protein, surface-associated, 117
 Protein aggregation, 256
 Protein binding, 389, 544
 Protein carrier, 753
 Protein crystals, 1483
 Protein folding, 1083
 Protein formulation, 1483
 Protein pharmaceuticals, 196
 Protein release, 117
 Protein stability, 1753
 Protein stabilization, 474
 Proton pump inhibitor, 721
 PSC 833, 1535
 Pulmonary delivery, 1677, 1685
 Pulmonary peptide delivery, 771
 PulmoSpheres[®], 1556
 Purification procedure, 1774
 PVP (poly(*N*-vinyl-2-pyrrolidone)), 323
- Q**
- Quantification, 112
 Quantitative physicochemical model, 652
 Quaternary ammonium ions, 702
 Quinidine, 39, 957
 Quinolone antibacterial drugs, 573
- R**
- Rabbit skin, 1634
 Rabbits, 494
 Rabeprazole, 721
 Raffinose, 474
 Raloxifene, 1024
 Ranitidine, 742
 Rat small intestine, 1232
 Rats, 9, 780, 1131, 1638
 Rats, diabetic, 191
 Recombinant adeno-associated virus, 922
 Recombinant human serum albumin, 1774
 Recombinant human vascular endothelial growth factor (rhVEGF), 1455
 Reconstituted lactosylated high-density lipoprotein, 403
 Regulatory limits, 728
 Release, 689
 Release rate, 1440
 Renal secretion, 573
 Renal tubular secretion, 1528
 Retinal capillary endothelial cell line, 1669

- Retinal pigment epithelial (RPE) cells, 565
- Reversal agents, 183
- Reverse transcription, 1096
- Rheology, 1593
- Rhodamine 123, 39
- rhVEGF (recombinant human vascular endothelial growth factor), 1455
- Rifampicin, 1405
- Rigid amorphous fraction, 1081
- Risedronate, 166
- Ritonavir, 859
- rOCT1, 1528
- rOCT2, 1528
- Ropinirole, 1713
- RPE (retinal pigment epithelial) cells, 565
- S**
- Salmeterol xinafoate polymorphs, 852
- Salt precipitation, 90
- Sanfetrinem cilexetil, 380
- Scaled particle theory, 1018
- Scaled regulatory criterion, 728
- Scaling, 1056
- Scanning electron microscopy, 656
- Scavenger receptors, 1
- Scintigraphy, gamma, 1146
- Secondary relaxations, 1766
- SERM (selective estrogen receptor modulator), 1024
- Serotonin, 838
- Shear, 689
- Silicone membrane, 999
- Simulated clinical trials, 728
- Simulation, 1210, 1796
- Simvastatin, 622
- Single crystal, 674, 867
- Single oral administration, 1400
- Single-dose acute toxicity, 344
- Sinusoidal efflux, 1119
- Skin, 61, 1634, 1701, 1708
- Skin absorption, 1472
- Skin adhesion, 211
- Skin patch, 1788
- Skin penetration, 525
- Skin permeation, 600, 1006
- Skin pH, 525
- Slip planes, 274, 674
- Slow release, 1185
- Slug, 937
- Small intestinal microsomes, 1232
- Smoking cessation, 537
- Sodium taurocholate, 1489
- Solid lipid nanoparticles, 287
- Solid meal, 460
- Solid-state, 1448
- Solid-state reaction, 267
- Solid-supported lipid membranes, 1781
- Solubilities, 852
- Solubility, 646, 794
- Solubilization, 1578
- Solution binder, 873
- Solvent sorption, 999
- Sonophoresis, 1151, 1514, 1694
- Spectral analysis, 1220
- Spectrometry, thermally stimulated current, 98
- Spectroscopy, fluorescence correlation, 928
- Spectroscopy, near infrared, 112
- Spherical, 1570
- Spray drying, 1570
- Spray-installation, 1677
- Stability, 261, 344, 531, 615, 794
- Stabilization, 1578
- Starch acetate, 1759
- Statins, 800
- Stereoselectivity, 151
- Stochastic model, 1061
- Stratum corneum, 894, 1012, 1472
- Structural changes, 632
- Structural properties, 1774
- Structure-transport relationship, 1110
- Study power, 75
- Study simulation, 75
- Subcutaneous, 1620
- Subcutaneous administration, 640
- Substrate specificity, 579
- Sucrose, 474
- Sulfamerazine polymorphs, 274
- Sulfathiazole, 682
- Sulfobutyl cyclodextrins, 667, 1578
- Sulfobutyl ether β -cyclodextrin, 1578
- Supercoiled, 67
- Supercritical fluid, 682
- Supercritical fluid crystallization, 852
- Supersaturation, 1006
- Surface energetics, 852
- Surface modification surfactant, 1613
- Surface-associated protein, 117
- Surfactant coating, 1157
- Surfactant-lipid, 971
- Surfactants, 104, 1586, 1694
- Sustained delivery, 1746
- SV40 large T antigen, 9
- Swelling, 304
- Synthesis, 600
- T**
- Tablet model, 203
- Tablet pore structure, 873
- Tablet structure, 203
- Tablet tensile strength, 203, 873
- Tabletability, 274
- Tacrolimus, 39, 713
- Tailor-made additive, 398
- Tape stripping, 992, 1006
- Targeting, 211, 1042, 1157
- Tat peptide, 950
- Taurocholate, 1119
- Taxol, 246
- T-cells, Molt 3, 329
- Tea flavonoids, 1420
- Tears, 500
- Telomerase, 488
- Telomerase assay, 488
- Telomere, 846, 1655
- Telomeric repeat amplification protocol (TRAP), 488
- Temperature dependence, 256
- Tenofovir, 234
- Tensile strength, 274, 281
- Terminal restriction fragments (TRF), 1655
- Tetanus toxoid, 352
- Tetracycline, 146
- TEWL (transdermal water loss), 992
- Theoretical model, 1497
- Thermally reversible, 689
- Thermally stimulated current spectrometry, 98
- Thermoporosimetry, 1562
- Thermosensitive, 548
- Thrombin inhibitors, 1110
- Thrombosis, 1151
- Tiffany scale, 537
- Tissue distribution, 238
- Tissue uptake, 439
- Titer, 745, 753
- TMC, 823
- TNF (tumor necrosis factor)- α , 408, 1631
- TNF (tumor necrosis factor)-Mab, 196
- Topical absorption, 999
- Topical administration, 980
- Topical bioavailability, 1472
- Topical delivery, 61
- Topical semisolid formulation, 1440
- Topoisomerase II, 846
- Tortuosity, 1796
- Tortuous, 1796
- Toxicology, 125
- Transactivator tTA, 146
- Transcellular transport, 573, 1660
- Transcription factor, 1631
- Transdermal, 1018, 1694
- Transdermal delivery, 211, 1029, 1701, 1708, 1713, 1788
- Transdermal drug delivery, 894
- Transdermal iontophoresis, 1634
- Transdermal water loss (TEWL), 992
- Transfection, 408
- Transferrin, 1042
- Transferrin receptor, 1091
- Transmission electron microscopy, 1012
- Transport, 171, 1420
- Transport number, 1708
- Transport studies, 253
- TRAP (telomeric repeat amplification protocol), 488
- TRF (terminal restriction fragments), 1655
- Trimethyl chitosan (TMC), 823
- Triptorelin, 1634
- Troglitazone, 380
- TSC (thermally stimulated current spectrometry), 98
- Tuberculosis, 1405
- Tumor immunity, 243
- Tumor model, 1613
- Tumor necrosis factor- α , 408
- Tumor necrosis factor-Mab, 196
- Tumor selective accumulation, 1190
- Turbidity measurement, 1753
- 2- and 4-period crossover design, 728
- Two immiscible electrolyte solutions (ITIES), 702
- Tyrphostin 8, 191
- U**
- Ubidecarenone (coenzyme Q₁₀), 287
- UDP-glucuronosyltransferase, 374, 1232
- UGT1A1, 374
- Ulcerative colitis, 788
- Ultrasound, 1151, 1514
- Unbound pharmacokinetics, 838
- V**
- Vaccine delivery, 1476
- Vaccines, 709, 971
- Valproic acid, 500
- Van Kel apparatus, 1440
- Vancomycin, 316
- N-Vanillyl-9-oleamide, 494
- Vapor pressure osmometry, 1226
- Vasodilation, 157
- Verapamil, 39, 544, 957, 1535
- Vesicles, 1586, 1627
- Vesicular electrokinetic chromatography, 104
- Vinblastine, 39
- Vitamin transporter, 950
- VolSurf, 1759
- Voltammetry, cyclic, 702
- Volume of distribution, 238, 1056
- Volunteers, 1203
- VP-16, 846
- W**
- Warfarin, 1024
- Warfarin binding, 632
- Water, physical state of, 1562
- Water requirement, 480
- Water-in-oil-water multiple emulsion, 689
- X**
- X-ray diffraction, 1480
- X-ray micro analysis, 1012
- X-ray powder diffractometry, 267, 1448
- Z**
- Zeta potential, 922