

Index

A

acetone, 4, 20, 102
adjuvant, 17, 24, 27, 28, 29, 32, 35, 36, 48
adjuvants, 37, 48, 147
aggregation, 13, 21, 53, 126, 149, 150, 152, 159, 160, 163, 170, 173, 184, 186, 187
alginates, 89, 90
amphiphilic, 65, 66
antibodies, 8, 10, 24, 30, 31, 33, 48, 117, 118, 120, 121, 122, 130, 147, 148, 195
antimicrobial, 76, 91
antioxidants, 191, 193, 194, 195, 196, 200-205
antisense, 105, 110, 145, 147, 153, 154, 155, 156, 158, 164, 167, 168, 170-173, 209
archaeosomes, 3, 4, 5, 8, 17, 18, 21, 22-29, 31-37, 91
asparaginase, 76, 80, 82, 83, 85
Atomic Force Microscopy, 49, 175, 177, 189

B

bioabsorbable, 3
bioactives, 1, 2, 3, 5-11, 95, 100, 102, 106
bioavailability, 1, 2, 41, 47, 52, 72, 95, 100, 101-106, 109, 110, 209
biodegradable, 3, 41, 59, 72, 76, 78, 81, 84, 85, 128, 132, 148, 195, 209
biodistribution, 6, 9, 16, 85, 113, 114, 125, 127, 134, 208
biomimetic, 75, 77, 84
blood brain barrier, 6, 86, 127, 132, 141, 150

C

caldarchaeol, 19, 20, 25, 26, 27
cancer, 2, 9, 11, 15, 16, 18, 34, 35, 80, 85, 105, 117, 126, 132, 136, 139, 141, 147, 149, 158, 166, 168, 191, 192, 200, 208, 220
cardiotoxicity, 78
cardiovascular, 132, 135, 191, 192

carrier system, 2, 3, 10, 41, 73, 91, 139, 140, 158
 cell culture, 178
 cell-penetrating peptides, 8, 136, 158
 chitosan, 78, 80, 85, 90
 chloroform, 4, 20, 177, 214
 cholesterol, 18, 21, 22, 25, 29, 67, 68, 70, 73, 78, 108, 140, 146, 149, 152, 164, 168, 169, 170, 188, 189
 chromosomes, 143
 colonic delivery, 90
 copolymerization, 57
 cosmetics, 1, 96, 106

D

dehydration-rehydration, 21
 dendrimers, 8, 51, 52, 59, 60, 61, 63, 67, 70, 71, 72, 207, 209, 210, 213, 217, 219, 220
 detergents, 3, 5, 198
 detoxication, 193
 dextran, 90, 127
 diabetes mellitus, 191, 192
 dicationic, 175, 176, 178-180, 186, 187
 doxorubicin, 15, 47, 65, 73, 78, 82, 84, 86, 127, 129, 133, 134, 135, 168
 DSC, 45, 46, 207, 212, 213, 215, 217

E

edelfosine, 11
 electron transfer, 101, 200
 emulsion, 4, 43, 76, 79, 148, 169
 endocytic pathways, 7
 endocytosis, 11, 143, 144, 151, 154, 167, 180, 188, 196

ether, 4, 13, 17, 18, 20, 24, 27, 96, 101, 164
 extrusion, 21, 147

F

fluorescence microscopy, 178
 freeze and thaw, 21
 fusion, 21, 124, 137, 142, 143, 150, 151, 153, 154, 159, 170, 171, 189, 196, 202, 208

G

gastrointestinal, 18, 25, 72, 87, 88, 91, 92, 93, 94, 103, 104
 gene therapy, 139, 140
 genetic drugs, 139, 140, 145, 154, 163
 glutathione, 193, 194, 197, 201, 202, 204
 glycosaminoglycans, 141, 164, 166, 167
 guar gum, 90

H

heating method, 4, 5, 13, 21
 hemisuccinate, 152, 164
 homogenisation, 3, 4, 42, 43, 44
 hormones, 8, 76, 103
 hydrogen peroxide, 150, 191, 192, 193, 194, 200
 hydrolysis, 3, 90, 114, 118, 121
 hydrophobic, 20, 21, 52, 53, 54, 59, 61, 65, 66, 67, 68, 70, 71, 75, 79, 82, 96, 97, 101, 104, 123, 125, 129, 145, 150, 161, 168, 177, 186
 hydrotropic, 51, 52, 53, 54, 55, 56, 58, 61, 62, 66, 67, 70, 71, 72, 73

I

immune system, 31, 48, 83, 147
immunization, 24, 28, 29, 31, 34, 35,
 137
immunomodulators, 28
inflammatory disease, 191, 192
intracellular, 1, 7, 8, 9, 12, 16, 17, 18,
 32, 33, 34, 37, 114, 115, 119, 125,
 129, 130, 132, 134, 135, 140, 142,
 143, 144, 146, 166, 167, 171,
 173, 188, 192, 194, 195, 196,
 197
intravenous, 10, 11, 23, 27, 42, 47,
 76, 81, 82, 104, 109, 131, 148, 165,
 169, 199, 203
 inulin, 90

L

lactulose, 90
laser phase microscopy, 177
lipid membranes, 7, 132, 186, 207
liposomes, 3-5, 8, 11, 12, 13, 14, 15,
 16-18, 20-25, 27-29, 31, 33-35,
 41, 77, 78, 81, 91, 113, 118-122,
 125-137, 141, 143, 146-149, 151,
 152, 159-162, 164-171, 174, 175,
 177, 183, 184-189, 191, 194,
 196, 197-202, 204, 205, 208-210,
 219
lung, 6, 10, 13, 34, 47, 85, 118, 122,
 134, 146, 165, 168, 196, 197, 198,
 199, 201-205

M

macrophages, 9, 15, 22, 24, 119, 130
 133, 134, 192
methanol, 4
methotrexate, 78, 84, 134

micelles, 3, 5, 11, 12, 13, 16, 41, 51,
 52, 61, 64, 65, 66, 67, 70, 72, 85,
 95, 100, 107, 118, 127, 130, 131,
 132, 136, 184, 208
microbiota, 88, 89, 90, 92, 94
microemulsions, 41, 44, 95, 96, 97,
 98, 100, 101-106, 108-111
microspheres, 3, 4, 5, 12, 13, 79, 81,
 84, 118, 133
miltefosine, 11
mitochondria, 192, 193, 194, 196
monoclonal antibodies, 7, 14
multilamellar, 14, 20, 25, 26, 161,
 165, 170, 174, 177, 187

N

nanocapsules, 12, 76, 78, 79, 80, 82,
 84, 85, 105, 110, 133
nanocarrier
targeting, 1-3, 5-12, 14-16, 50, 52,
 81, 84, 93, 118, 119, 123, 126,
 127, 129, 130-137, 147, 148, 155,
 158, 167, 168, 169, 172, 176,
 200
nanoliposomes, 3, 4, 5, 8, 11
nanoparticles, 3-5, 9-11, 13-16, 41,
 45, 47-50, 76-86, 118, 129, 148,
 150, 170, 183, 208
nanospheres, 3, 5, 12, 49, 81, 82, 84,
 85, 169
nanotechnology, 12, 51, 70, 176, 208,
 220
nanotherapy, 1, 2, 6, 7, 12, 176,
 187
neoplastic, 2, 34
niosomes, 3, 4, 5, 13, 106, 107
nucleus, 7, 143, 144, 150, 167, 180,
 187, 192
nutraceuticals, 87
nutrients, 1, 77

O

- oligonucleotides, 7, 105, 110, 139, 141, 145, 147, 150, 154, 155, 156, 158, 159, 164, 167, 168, 169, 170, 172, 173, 174
- opsonization, 6, 9, 76, 126, 141, 146
- oral formulations, 59
- organic solvents, 4, 41, 42, 48, 66, 79, 198
- organogels, 95, 97, 100, 103, 104, 105, 106, 107
- ovalbumin, 21, 28
- oxidation, 21, 37, 100, 101, 107, 193, 198
- oxidative stress, 17, 47, 191, 192, 197, 199, 200, 201, 203, 204

P

- paclitaxel, 51, 53, 54, 55, 66, 58, 61, 62, 63, 65, 66, 67, 68, 70, 71, 72, 73
- parenteral, 42, 43, 46, 47, 78, 87, 103, 105, 110, 198
- particle size, 2, 6, 10, 43, 46, 48, 49, 95, 104, 150, 160, 164
- partition coefficients, 114
- pectins, 90
- PEG, 60, 61, 63, 64, 73, 81, 82, 85, 86, 127, 129, 133, 146, 149, 152, 164
- peptides, 14, 31, 95, 103, 104, 117, 127, 131, 134, 142, 143
- phagocytic cells, 6
- pharmacokinetics, 50, 113, 168, 219
- pharmacology, 113, 202
- phosphorothioate, 154, 155, 164, 167
- pH-sensitive, 11, 16, 120, 129, 143, 151, 152, 154, 167, 171

- plasmid DNA, 7, 78, 141, 144, 146, 149, 153, 165, 167, 168, 175, 177
- polar lipid, 18, 22, 28
- polydispersity, 209, 210
- polyol, 5, 20
- prebiotics, 87, 89, 92, 93
- pulmonary bioactive delivery, 6

R

- Raman spectroscopy, 207, 214, 215, 216
- receptors, 7, 10, 118, 134, 168, 176
- retinol, 46
- retinyl palmitate, 46
- reverse-phase evaporation, 4, 21
- rheumatoid arthritis, 47, 134, 191, 192
- riboflavin, 53

S

- self-assemblies, 51
- small angle neutron scattering, 178, 185
- solid lipid particles, 42
- sonication, 3, 4, 21, 150
- stability, 1, 2, 3, 4, 5, 6, 8, 17, 18, 21, 25, 27, 41, 45, 49, 51, 65, 66, 75, 81, 88, 101, 102, 105, 119, 123, 128, 133, 145, 146, 151, 152, 159, 160, 161, 167, 170, 173, 174, 184, 187, 208, 210, 211
- sulfonates, 53
- sunscreens, 46, 47
- surfactant, 1, 3, 5, 42, 43, 44, 64, 65, 82, 86, 95, 96, 97, 99, 102, 103, 104, 105, 106, 110, 111, 133, 136, 167, 183, 189, 197, 202

T

thermal analysis, 45, 212, 220
thermo-responsive, 11
tocopherol, 100, 101, 107, 194, 196,
197, 198, 199, 202, 204
toxicity, 4, 5, 15, 22, 23, 25, 41, 42,
48, 49, 65, 97, 104, 105, 109,
122, 127, 139, 140, 169, 191,
196, 199, 200, 203, 204, 208
transfection, 78, 137, 140, 141, 144,
145, 147, 148, 149, 152, 154,
159, 161, 164, 165, 166, 167,
169, 170, 174, 175, 176, 179,
180, 184, 186, 189
tumor, 9, 11, 14, 15, 35, 36, 119,
120, 121, 122, 127, 129, 130,
131, 133, 135, 136, 166, 168, 200
tumors, 6, 9, 11, 34, 35, 36, 119,
120, 121, 123, 127, 128, 130,
136, 219

U

unilamellar, 20, 21, 22, 171, 177, 185
UV blocking effect, 47

V

vaccination, 32, 33, 34, 36, 48, 128
vaccines, 1, 17, 18, 25, 28, 30, 31,
32, 34, 35, 37, 48, 97, 103, 119,
120, 129, 136, 166, 168
vascular endothelium, 6, 202, 203
vesicular phospholipid gels, 3, 4, 13
viral vectors, 140, 141, 147, 166
volatile organic solvents, 3, 4

W

water-soluble, 8, 27, 51, 52, 58, 60,
65, 66, 67, 72, 73, 79, 104, 196

Z

Zeta potential, 45, 78, 159