Index

a

Aβ peptide formation 478–480
Abl inhibitor lapatinib 47
acetazolamide 255
acetylcholinesterase inhibitors (AChEI) 256
Acquired immune deficiency syndrome (AIDS) 15
active pharmaceutical ingredients (APIs) 104–105
activity-based protein profiling (ABPP) 317
activity landscape modeling (ALM) 19, 166
adenosine A_{2A} receptor and adenosine transporter 292–295
adenylosuccinate lyase (ASL/ADSL) 317
adverse drug reactions (ADRs) 8
afatinib 48
affinity purification-based MS (AP-MS) approach 317
aldose reductase-related protein 2, 317
allosteric SMKIs 47–48
α-carbonic anhydrase (CA) 161, 255
Alzheimer's disease 259
  amyloid cascade hypothesis 480–481
  amyloid plaques 478–480
  metal toxicity 481–483
  neurofibrillary tangles 481, 482
  neuroinflammation 481–483
  oxidative stress 481–483
AMI-5 11
4-(aminoalkoxy)benzylamines 262
aminobenzimidazoles 295–298
2-(4-aminophenoxy)naphthalene-1,4-dione 140
3-aminoquinazolinediones 7 core scaffold 438
amoxapine 62–63
amyloid cascade hypothesis 480
amyloid plaques
  Aβ peptide formation 478–480
  aggregation 480
amyloid precursor protein (APP) 183
ANAVEX1–41 498
ANAVEX2–73 498
ANAVEX3–71 (AF710B) 501
angiotensin converting enzyme (ACE) 262, 415
angiotensin II (AII) 369
angiotensin II type 1 (AT_1) receptor
  activity pathway 387–388
  antagonist/PPARγ 377
  antagonists 372, 377 *see also* angiotensin receptor blockers (ARBs)
  antioxidant agents 384–386
  endothelins (ET) 372
  NO agents 382
  structure of 370–372
angiotensin receptor blockers (ARBs) 369, 372
  antihypertensive effects of 382
  AT_1 receptor 370
  binding mode, AT_1 372
  telmisartan 377

Drug Selectivity: An Evolving Concept in Medicinal Chemistry, First Edition.
Edited by Norbert Handler and Helmut Buschmann.
© 2018 Wiley-VCH Verlag GmbH & Co. KGaA. Published 2018 by Wiley-VCH Verlag GmbH & Co. KGaA.

angiotensin II receptor blockers (ARBs)
PPARγ agonists 415
6-anilinouracils (6-AUs) 461
animal-based screening 80
antagonist *see* proliferator-activated receptor-γ (PPARγ)
AT_1 377–382
ET_A receptor 373
antibacterial drugs 464–465
antibody/protein drug conjugates
brentuximab vedotin 219
chances and challenges 218–219
coltuximab ravtansine 222
effective therapeutic options 223
glembatumumab vedotin 221
indatuximab ravtansine 222
inotuzumab ozogamicin 221
lorvotuzumab mertansine 222
trastuzumab emtansine 220
antidepressant drugs 340–347
antinociceptive multitarget drugs 188
antioxidant agents 384–386, 485
antitarget receptors 10
anti-trypanosomatid MTDL
combined target/targeting approach 149–151
drug targeting approach 146–149
phenotypic approach 138–141
target-based approach 141, 143, 146
AP5346 (Pro-Lindac) 228
approved kinase inhibitors 36, 43–45, 48
3-AQD scaffold 439
arylboronic acids 301–304
AT_1/ET_A receptor 374, 375
automated patch clamping 318
7-azaindole scaffold 165

b

BACE1 inhibitors/metal chelators 497–498
bacterialβ-glucuronidase (GUS) enzyme 62
bacterial topoisomerases inhibitors 435
benextramine 491
β-amyloid (Aβ) peptides 483
11β-hydroxysteroid dehydrogenase type 1 (11β-HSD1) 423
β-ketoacyl-acyl carrier protein (ACP) 454
β-lactam antibiotic 434
β-lactam-fluoroquinolone hybrid molecules 458
bicyclic diamines 450
Bio Assay Ontology (BAO) 248
bioactivity data sources 248
Bio-Plex Pro magnetic cell signaling assays 318
blood–brain barrier (BBB) 60
boronic acid-based penicillin-binding-protein inhibitors 452
bradykinin B_1 and B_2 receptors 290–292
breast cancer brain metastasis 59–62
brentuximab vedotin 219

c

cancer proteins 60
cancer signaling bridge (CSB) 60
caproctamine 491
cardiovascular diseases 262–264
catechol-*O*-methyltransferase (COMT) inhibitors 258
cathepsin-L (CatL) inhibitor 254
Cavbase 162
celecoxib 162
cell-based screening 80–81
cell phenotypic assays
high content imaging assays 323–324
label-free cell phenotypic assays 324–326
reporter gene assays 322
cellular assays
automated patch clamping 318
chemogenomics-based assays 320–321
chemoproteomics-based assays 315–317
drug discovery 314–321
high content imaging assays 323–324

label-free cell phenotypic assays 324–326
ligand binding assays 314–315
miniaturization 313
perspectives 326, 327
protein–protein interaction assays 319
protein trafficking assays 319–320
reporter gene assays 322
signaling assays 317–318
3D organotypic culture 313
cell viability assays 80
cephalosporin-based hybrid molecules 457–459
cephalosporin-fluoroquinolones hybrid molecules 457
cerulenin 454
Chagas' disease 137
ChEMBL 248
chemical proteomics approach 140
chemogenomics 16–18
chemogenomics-based assays 320–321
chemoinformatics 83–84
chemoproteomics-based assays 315–317
chiral drugs 111
8-(3-chlorostyryl) caffeine 259
chronic myelogenous leukemia (CML) 112
ciprofloxacin 437, 445, 460
cleavable linkers 231
cobimetinib 47
coltuximab ravtansine 222
combinations of drugs 12
competent patient 116
compound promiscuity 4
computational and systematic drug repositioning
methods based on genome-wide association study 66
methods based on knowledge of side effects 64–65
methods based on transcriptomics data 65–66
Computational Conformer Selection (CSS) approach 84
Connectivity Map (cMap) 88
covalent inhibitors 48
covalent SMKIs 49
COX inhibitors 421–422
COX-2/sEH dual inhibitors 269
Critical Path initiative 107
crystallography/SAR 166–168
cyclic guanosine monophosphate (cGMP) 382
cyclic nucleotide phosphodiesterases (PDEs) 163
cyclooxygenase 2 (COX-2) 216

d

dabrafenib 45
Danish University Antidepressant Group (DUAG) 337
dapoxetine 57–58
dasatinib 59–62
depression 261–262
diabetes and related metabolic diseases 264–267
1,4-disubstituted aromatic piperidines 172
disulfide linked drug conjugates 232
DNA-dependent protein kinase (DNA-PK) 173
DNA gyrase 435
DNA topoisomerase inhibitors 435
DNA topoisomerase IV 435
docking 82–83
doctor and patient 115–116
donecopride 486
dopamine type 2 (D2) antagonist 249
dopamine type 4 (D4) antagonist 249
drug conjugates
antibody/protein 217–223
enhanced permeation and retention 234
linker chemistry 229–233
polymer 223–229
preclinical and clinical development 208
small molecule 209
targeted delivery 209, 233
therapeutic efficacy 233
therapeutic opportunities 235

drug discovery
anti-trypanosomatid MTDL, *see* anti-trypanosomatid MTDL
concept of selectivity 151
GPCRs 135
neglected tropical diseases (NTDs) 136–138, 143
one-molecule-one-target paradigm 136
drug repositioning
amoxapine 62–63
computational and systematic 64–68
dapoxetine 57–58
dasatinib 59–62
duloxetine 58–59
list of repositioned drug 56, 57
perspective 68, 73
sildenafil 58
sunitinib 59–62
thalidomide 59
drug repurposing 11
animal-based screening 80
cell-based screening 80–81
chemoinformatics 83–84
docking 82–83
drug-and protein-centric approach 86
mining of big data 88–89
network pharmacology 86–88
protein binding site 84–86
target-based screening 81–82
drug selectivity 113–114
drug targeting 146–149
druggable enzymes 434
DrugMap Central 87
DU-125530 351
dual A_{2A} and MAO-B inhibitor 260
dual acetylcholinesterase inhibitors-histamine H3 receptor antagonists 297–299
dual AChE and MAO-B inhibitors 258
dual AChEI and AChEI-induced beta-amyloid aggregation 257
dual-action receptor antagonist (DARAs) 373, 375
dual aromatase–STS inhibitor 252
dual COX-2/LTA_4H inhibitor 268
dual FMS/KIT kinase inhibitors 165
dual GPR119 and DPP-IV MML 267
dual H_3 and SERT modulator 263
dual HDAC and IMPDH inhibitors 253
dual MMP-1/CatL inhibitors 254
dual MMP-2/CA IX inhibitors 255
dual NK_1 receptor antagonist 262
dual pharmacophores
cephalosporin-based hybrid molecules 457–459
fluoroquinolizine–rifamycin hybrid drugs 462
fluoroquinolone–aminouracil hybrid drugs 461–462
fluoroquinolone–oxazolidinone hybrid drugs 459–461
limitations and perspectives 463–464
dual phosphoinositide 3-kinase (PI3K)/mammalian target of rapamycin (mTOR) inhibitor 43
dual PI3K/Tyr kinase inhibitors 167
dual SERT and 5-HT_{1A} modulator 261
dual TS/DHFR inhibitors 179
duloxetine 58–59

e

EC0746 211
electroconvulsive therapy (ECT) 337
electronic health 115
electronic medical records (EMRs) 82
endothelial dysfunction 384
endothelial growth factor (EGFR) inhibitor imatinib 46, 47
endothelin-A receptor (ET_A) antagonists 264
endothelin (ET) receptor 372
AT_1 receptor 373
Merck AII antagonist 372
SHR 375
DARAs 373, 374
enzymatically cleavable linkers 232
E-pharmacophore based virtual screening 299–301

epigenetic relevant chemical space (ERCS) 14–15
epigenetics 13–14
erythema nodosum laprosum (ENL) 59
eukaryotic SMKIs 38
EZN-2208 228

f
farnesoid X receptor (FXR) 299
FDA-approved inhibitors 44
flibanserin 347
fluoroquinolizine–rifamycin hybrid drugs 462
fluoroquinolone–aminouracil hybrid drugs 461–462
fluoroquinolone–oxazolidinone hybrid drugs 459–461
fluoxetine (Prozac) 58
folate receptor (FR) positive cells 211
form fits function 83
forward pharmacology 79
fragment-based drug design 250
frequently used linkers 231

g
γ-secretase and PPARγ 496–497
GAPDH 143
gefitinib 46
gene surgery 109
gene therapy 108–110
Generally Recognized as Safe (GRAS)
  compounds 14
  molecules 14
glembatumumab vedotin 221
glufosfamide 214
glycopeptide-β-lactam hybrid molecules 458
glycosomal glyceraldehyde-3-phosphate dehydrogenase (*Tb*GAPDH) 140
glycosomal glycerol kinase (*Tb*GK) 140
G protein-coupled receptors (GPCRs) 135, 315, 349
Gram-negative ParE 449
green fluorescent protein (GFP) 319
GSK2140944 444
GyrA amino acids 443
GyrA/ParC antibacterials 445
GyrB/ParE inhibitors 446
Gyrase/topoIV ATPase inhibition and antibacterial activity 447

h
haptophore 147
hCB_2R ligands 295–297
high confidence protein pathways (HCPP) 60
high content imaging assays 323, 324
high content screening (HCS) 323
histamine H_3 receptor antagonists 262
histone deacetylases (HDACs) 252
HLA20 485
HLA20A 485
5-HT_{1F} receptor 356
5-HT_{2A} receptors 345
  antagonist 349
  inhibition 345
5-HT_6 receptor 356
human acetylcholinesterase (hAChE) 485
human African trypanosomiasis (HAT) 136
human AT_1 receptor 370
human butyrylcholinesterase (huBChE) 485
human dihydrofolate reductase (hDHFR) 250
human ether-a-go-go related gene (*hERG*)) 349
human immunodeficiency virus (HIV) 15
human thymidylate synthase (hTS) 250
hydrazone based linkers 231
hydrophobic interactions 372
hydroxyisoquinolone 437
3-hydroxyquinazoline-2,4-dione scaffold 438
5-hydroxytryptamine (5-HT) 339

i

ibrutinib 48
idebenone 493
idelalisib 48
imatinib 46, 161
imidazopyridone 379
in vitro receptor 346
in vivo testing 12–13
indatuximab ravtansine 222
individualized medicines 110–112
inflammation and pain 267–269
Innovative Medicines Initiative (IMI) 107
inosine monophosphate dehydrogenase (IMPDH) inhibitors 252
inotuzumab ozogamicin 221
irinotecan (CPT-11) 62
isoniazid 454
isothiazoloquinolones (ITQs) 436, 437

k

Kaplan–Meier survival analysis 60
kinase inhibitors 8, 9
kinase profiling 38–40

l

label-free biosensor techniques 324
label-free cell phenotypic assays 324–326
ladostigil (TV-3,326) 495
lapachol 139
lapatinib 46
leishmaniasis 137
ligand-based approaches
  fragment-based approach 180
  fragment-based drug discovery strategy 170–171
  machine learning 171–173
  mining literature data 183–186
  pharmacophore-based approach 176–180, 181
  SAR around a lead 173–176
ligand-based pharmacophore modelling 276–278
ligand binding assays 314–315
ligand binding domain (LBD) 378
linezolid 460
linked fluoroquinolone-flavonoid hybrids 285, 286
linker chemistry
  demands 229–231
  types 231–233
lipid kinase inhibitor 48
lorvotuzumab mertansine 222
lovastatin 323
L-type calcium channel 387

m

machine learning 171–173
macrolide kinase inhibitors 33
major depressive disorder (MDD) 337
MANTRA 88
MAO-B inhibitor rasagiline 258
MAO inhibitors 486
mass spectrometry-based proteomics techniques 316
master key compound 5–8, 10
matrix metalloproteases (MMPs) 254
MC 1095, 486
medium level innovation 114, 115
melanin-concentrating hormone receptor 1 (MCH1 receptor) 162
melarsoprol 137
merged multiple-ligands (MMLs)
  Alzheimer's disease 259
  bioactivity data sources 248
  cardiovascular diseases 262–264
  depression 261–262
  diabetes and related metabolic diseases 264–267
  fragment-based drug design 250
  inflammation and pain 267–269
  network pharmacology 247
  neurodegenerative diseases 255–256
  oncology 251–255
  Parkinson's disease 260
  polypharmacology 248–249
  protein crystal structures 250–251
  QSAR models 249–250
  rational design of 247
meta-chlorophenylpiperazine (m-CPP) 345
metal chelators 485–486
metal toxicity 481–483

mianserin 346
miltefosine 137
mining literature data 183–186
mirtazapine 346, 347
mitogen-activated protein kinase 2 (MAP4K2) 304–306
M2 muscarinic receptor inhibitors 491–492
molecular docking 167–169
monoamine oxidase (MAO) inhibitors 256
monoamine oxidase inhibitors (MAOIs) 337
moxifloxacin 435, 436
multi-drug resistance (MDR) proteins 215
multi-inhibitors 40
multiple ligands 283–285
multiple myeloma 59
multiplicity of action 433
multitarget antiinflammatory drugs 169
multi-target directed ligands (MTDLs) 138, 478
  acetylcholinesterase (AChE) inhibition
    antioxidants 485
    catalytic active site 483
complex pharmacological profile 492–496
    MAO inhibitors 486
    metal chelators 485–486
M2 muscarinic receptor inhibitors 491–492
    NP-61 483
    peripheral anionic site 483
serotonin 5-HT_4 receptor agonist 486–491
  treatment of AD
    BACE1 inhibitors/metal chelators 497–498
    γ-secretase and PPARγ 496–497
    muscarinic and σ1 receptors 498–501
multi-target *vs*. target-specific drugs
  master key compound 5–8, 10
  safety panels 8–10
multitarget drug design
  advanced clinical trials 190
  crystallography/SAR 166–168
  ligand-based approaches, *see* ligand-based approaches
  fragment-based approach 163–166
  molecular docking 167–169
  phenotypic assays 186–189
multitarget 5-HT_{1A}/SERT inhibitors 182
multitarget MCH-1 antagonist/DPP-IV inhibitors 181
MurD and MurE ligases 453
Mur ligase inhibitors 453
muscarinic and σ1 receptors 498–501
mycophenolic acid (MPA) 252

n

N-acetylglucosamine poly-ethylene glycol 227
N-linked aminopiperidine inhibitors 444
N-phenylquinazolin-4-amine hybrids 286–287
N^1,N^8-bisglutathionylspermidine 144
NAD(P)H:quinone oxidoreductase 162
NanoLuc luciferase 315
naphthoquinones 139
naphtoquinone-and anthraquinone-derived library 140
Natural Language Processing (NLP) techniques 89
NBTI 5463, 445
neglected tropical diseases (NTDs) 136–138
neprilysin *see* neutral endopeptidase (NEP) 387
network pharmacology 86–88
neurodegenerative diseases 255–256
neurofibrillary tangles 481, 482
neuroinflammation 481–483
neurokinin-1 292, 293
neurokinin NK-1 receptor antagonists 261
neutral endopeptidase (NEP) 262, 387
new chemical entities (NCEs) 348–349
new molecular entities (NMEs) 82

nifurtimox 137
nilotinib 161
^{99m}Tc based conjugate 214
nitric oxide (NO) agents
  AT_1 receptor 382–384
  cGMP 382, 383
  vasorelaxing effects 383
non-benzodiazepine alternative 345
non-cleavable linkers 233
non-covalent type I and type II SMKIs 42, 45–47
(non-fluoroquinolone) dual inhibitors 439–445
non-selective cytochrome P450 inhibitor 345
non-serotonin transporter (non-SERT) 338
non-SERT, phase 2/3 355–356
non-steroidal anti-inflammatory drugs (NSAIDs) 421
norepinephrine transporter (NET) 340
norfloxacin 216
novobiocin 446

o

obsessive compulsive disorder (OCD) 345
omapatrilat 263
oncology 251–255
one-molecule-one-target paradigm 136
osimertinib 48
oxazolidinone–fluoroquinolone hybrid molecules 461
oxidative stress 384, 481–483

p

paclitaxel poliglumex 226
pan assay interference compounds (PAINS) 4
pan-inhibitors 40
Parkinson's disease 260, 501–502
pathological chaperone 256
penicillin-binding proteins (PBPs) 451, 457
peptidoglycan biosynthesis 451–454
peripheral dopa decarboxylase inhibitors 258
peroxisome proliferator-activated receptors (PPARs) 377
  activities 415
  approved drugs 415, 416
  ARBs 415
  11β-HSD1 423
  COX inhibitors 421
  dual agonists 404–414
  nuclear receptor 397
  PPARα 399
  PPARδ 400
  PPARγ 400
  PTP1B 423
  subtypes 399, 404, 405
personalized medicine
  APIs 104–105
  competent patient 116
  doctor and patient 115–116
  drug selectivity 113–114
  electronic health 115
  gene therapy 108–110
  individualized medicines 110–112
  medium level innovation 114, 115
  patient in the focus of research 107
  personalized therapy 107–108
  regenerative medicine 110
  roots of 103
  stratified medicines 112–113
  systems pharmacology 105–106
personalized therapy 107–108
pharmacophore
  adenosine A_{2A} receptor and adenosine transporter 292–295
  aminobenzimidazoles 295–298
  arylboronic acids 301–304
  basic framework 276
  bradykinin B_1 and B_2 receptors, 290–292
  computational chemistry 275
  definition 275
  de novo design 280–281
  discovery of multiple ligands 283–285
  dual acetylcholinesterase inhibitors-histamine H3 receptor antagonists 297–299

E-pharmacophore based virtual screening 299
ligand-based method 275–278
limitations 282–283
linked fluoroquinolone-flavonoid hybrids 285, 286
mitogen-activated protein kinase 2 (MAP4K2) 304–306
N-phenylquinazolin-4-amine hybrids 286–287
neurokinin-1 292, 293
phospholipase A2 and human leucotriene A4 hydrolase 287–290
structure-based method 275, 278–279
TGFβ-activated kinase 1, 304–306
virtual screening 84, 279–280
pharmacophore-based approach 176–181
phenotypic assays 186–189
2-phenoxy-1,4-naphtoquinone 139
phosphodiesterase-5 (PDE5) inhibitor 58
phosphoinositide-3-kinase(PI3K)/tyrosine kinases dual inhibitors 166
phospholipase A2 and human leucotriene A4 hydrolase 287–290
photosensitizers 216
PI103 175
PI3K/mTOR dual inhibitors 175
PI3Kinase-related kinase (PIKK) 173
pimavanserin 355
platelet-derived growth factor receptor (PDGFR) 38
platencin 454
platensimycin 456
Plexxikon kinase inhibitors 165
poly-L-glutamate camptothecin 227
polymer-drug conjugates
chances and challenges 223–225
examples 226–229
polypharmacology 248, 249, 315
charting the epigenetic relevant chemical space 14–15
chemical wilderness 4
chemogenomics 16–18
combinations of drugs 12
compound promiscuity 4
data mining 20
description 3
drug repurposing 11, 20
dual-face 5
epigenetics 13–14
fingerprints 21
HIV-infections 15
in vivo testing 12–13
PAINS 4
polypharmacy 4
promiscuity 4
proteochemometric modeling 19
structure multiple-activity relationships 17–19
systems pharmacology 21
target fishing 19–20
polypharmacy 4
polysomnographic (PSG) effects 347
post-biotech pharma 112
PPARα 399, 401
PPAR*δ* 400
PPAR*δ*/β 400
PPARγ 400, 401
prokaryotic kinase inhibitors 38
proliferator-activated receptor-γ (PPARγ)
antagonism 377
AT_1 antagonist 378
AT_1 receptor 377
crystal structure of 379
imidazopyridone 379
LBD 378
ZDF 379
promiscuity 4
promiscuous inhibitors 40
prostate specific membrane antigen (PSMA) 214
protein binding site 84–86
protein crystal structures 250–251
protein data bank (PDB) 248
protein–protein interactions (PPIs) 88, 319
protein traffic disorders 319
protein trafficking assays 319–320
protein translocation 320

protein tyrosine phosphatase 1B (PTP1B) 423
proteochemometric (PCM) modeling 19
PSN-602 267
PubChem BioAssay 248
Pyrazolopyridine 380
pyrimidoindoles 451
pyrrolopyrimidines 449

q

quantitative structure activity relationships (QSAR) models 249–250
quercetin 174
quinolones 435
quinolyl propyl piperidine (QPP) scaffold 439, 440
quinone-coumarin hybrids 146

r

radioisotope-labeled ATP 40
receptor antagonists 372
reduced folate carrier (RFC) 211
regenerative medicine 110
renal antihypertensive rats (RHR) 376
renin-angiotensin-aldosterone system (RAAS) 369
renin/angiotensin system (RAS) 415
reporter gene assays 322
representative GSK NBTIs 442
rhinovirus (RHV) coat protein 85
rifamycin 462
Robalzotan 261, 351
ruxolitinib 47

s

safety panels 8–10
Sartans 415
selective MAO-B inhibitors 258
selective optimization of side activities (SOSA) 162
selective serotonin reuptake inhibitors (SSRIs) 337–339
  DUAG comparisons of clomipramine 338
selumetinib 43
serotonergic antidepressants
  clinical experiments
    5-HT transporter-based multiple ligands 337
    SSRIs and 5-HT_{1A} agonists/antagonists 350–352
    SSRIs and 5-HT_{2A} receptor 352–355
  multiple serotonergic mechanisms
    trazodone 343
    vilazodone 343
    vortioxetine 343
  NET 340
  non-SERT, phase 2/3 355–356
  serotonergic compounds 347–348
  SERT 339–340
  SSRI improvement 338–339
serotonin antagonist-reuptake inhibitor (SARI) 343
serotonin 5-HT_4 receptor agonist 486–491
serotonin-reuptake inhibitor (SSRI) 57
serotonin transporter (SERT) *see* selective serotonin reuptake inhibitors (SSRIs)
signaling assays 317–318
sildenafil 58
similarity ensemble approach (SEA) 249
single pharmacophore molecules
  bacterial DNA gyrase and topoisomerase IV 434–451
  peptidoglycan biosynthesis 451–454
  type II fatty acid synthases 454–456
small molecule drug conjugates
  chances and challenges 209–210
  examples 210–217
small-molecule kinase inhibitors (SMKIs)
  approved, 36, 43–45 48
  definition and quantification of selectivity levels, 40–43
  kinase profiling, 38–40
  macrolide 33
  prokaryotic 38

selective 40
unexplored chemical spaces 49
small molecule STAT-3 SH2 inhibitors 162
soluble Epoxide Hydrolase (sEH) 250
sorafenib 170
S. pneumoniae ParC 439
S. pneumoniae topoIV 438
spontaneously hypertensive rat (SHR) model 375
staurosporine 41, 43
steroid sulfatase (STS) enzyme 251
STI-571 165
3D stochastic optical reconstruction microscopy (3D STORM) 319
stratified medicines 112–113
stress urinary incontinence (SUI) 58–59
structure-activity similarity (SAS) maps 19
structure-based pharmacophore modelling 278–279
sunitinib 59–62
synthetic flavone LY294002 173
systems pharmacology 21, 105–106

t

Takeda G-protein coupled recptor-5 (TGR-5) 299
target-based screening 81–82
targeted drugs 138
target fishing 19–20
TCA clomipramine 340
T-cell lymphoma. Topoisomerase I (TopoI) 252
telmisartan 377, 415
tetrahydropyran (THP)-based dual topoisomerase inhibitors 442
TGFβ-activated kinase 1 (TAK1) 304–306
thalidomide 59
thiolactomycin 454
thymidylate synthase (TS)/dihydrofolate reductase (DHFR) dual inhibitors 177
tofacitinib 47
toxophores 147
trametinib 47
trastuzumab emtansine 220
trazodone 343
triclosan 454
tricyclic antidepressants (TCAs) 337, 340
TriTryp genome 142
trivalent drug conjugate EC0225 211
TROLOX™ 485
Trypanosomatidae 147
trypanosomatid enzymes 142
type II fatty acid synthases 454–456
type II inhibitor gefitinib 45
type II inhibitor imatinib 45
type III allosteric mitogen-activated protein kinase (MAPK)/extracellular signal-regulated kinase (ERK) kinase 43
tyrosine kinase inhibitors (TKIs) 112, 161

u

UDP-MurNAc 452
UDP-*N*-acetylmuramoyl (UDP-MurNAc)-pentapeptide (Park's nucleotide) 452
United States Food and Drug Administration (FDA) 337

v

vancomycin 458
vandetanib 186
vemurafenib 45, 165
vilazodone 343
Vintafolide 211
virtual screening 279–280
VisANT 87
vortioxetine 343

w

whole-cell patch-clamp electrophysiology 318

z

Zucker diabetic fatty rat (ZDF) model 379