

Index

A

A-82695, 110
ABT-089, 114
ABT-418, 110, 111, 116
Abuse, 116
ACh binding site, 3–6
ADHD, 104, 117, 118
Adolescence, 151
Alertness, 108
 $\alpha 7$, 113–115, 121, 123
 $\alpha 4\beta 2$, 114
 $\alpha 4\beta 2^*$, 113–116, 121
 α Bungarotoxin, 11, 13
Alzheimer's, 104
Alzheimer's disease, 118
Amygdala, 91
Anxiety, 172
AR-R17779, 115
Arousal, 120
Attention, 103, 106, 117
Aversive effects, 106
AZD-3480, 118, 121

B

BOLD, 121
Bupropion, 181

C

Candidate gene studies, 21
catechol-O-methyltransferase (COMT), 203
Cell-signaling cascades, 150
Cerebral blood flow, 123
5-choice serial reaction time task (5-CSRTT),
110, 115, 117, 119, 198
Chronic exposure, 112, 113
Concurrent choice, 178
Cue-reactivity, 173
Cue-reactivity paradigms, 207
CYP2A6, 37, 39, 40, 42–44, 47

D

Default network, 123
Dependence, 119
Desensitization, 112, 117
Dihydro- β -erythroidine, 114
Distress, 172
DMXB-A, 118, 123
DMXBA, 124
Dopamine, 37–39, 46, 47, 49, 53–56, 58–67,
116, 196
Dopaminergic, 93, 97, 98
Drug discrimination, 169

E

Electroencephalography (EEG), 120, 197
Event-related potentials, 120
Exome sequencing, 31
Extinction of fear, 142
Extinction therapy, 181

F

Fatigue, 172
Fear conditioning, 140
Frontal cortex, 91, 92, 96
Functional Magnetic Resonance Imaging, 121

G

GABA, 119
Genetic variation, 39, 40, 48–50, 52–60, 64,
65, 67, 68, 70, 71
Genome-wide association studies, 21
Genome sequencing, 31
Glutamate, 119, 120
Glutamatergic, 89, 95
Glycine, 119
Go/No-Go, 200
GTS-21, 115, 118

H

Habit/compulsion, 166
 Habit learning, 180
 Heritability, 20
 Heterogeneous instrumental chains, 171
 Hierarchical instrumental, 167
 Hippocampus, 88, 90, 92, 95, 96
 Hippocampus-dependent learning, 140
 Histamine, 119
 5-HT, 119

I

Imputation, 22
 Incentive learning, 167
 Incentive salience, 166
 Individual differences, 179
 intracranial self-stimulation (ICSS), 205
 Isoarecolone, 116

L

Learning, 106
 Lobeline, 110
 Locomotor, 113
 Locomotor stimulant, 114

M

Mecamylamine, 117
 MEM3454, 115
 Memory, 90–94, 97, 104, 106, 117
 Methyllycaconitine, 114
 Mismatch negativity, 121
 MK801, 115
 Mood, 172

N

nAChR agonists, 105
 nAChRs, 37, 38, 47, 52, 53, 55, 56, 58, 138, 195
 nAChR subtype, 1–3, 9, 10, 12, 13, 113, 115, 116, 119
 n-back task, 203
 Negative reinforcement, 167, 215
 neurocognition, 197
 Nicotine, 2, 6, 8, 9, 37–39, 42–60, 62, 63, 65–71, 139
 Nicotine discriminative stimuli, 170
 Nicotine withdrawal symptoms, 196
 Nicotinic, 88–98
 Nicotinic receptor subtypes, 14
 NMDA receptors, 143
 non-nicotine factors, 211

O

Oscillations, 120

P

P50, 121
 Pavlovian, 166
 Pharmacotherapy, 181
 Phenotype refinement, 26
 Plain packaging, 182
 PNU-120596, 115
 PNU-282987, 115
 Polymorphisms, 118
 Posner, 109
 Prazosin, 120
 Prefrontal cortex, 145
 Processing speed, 106
 progressive ratio task, 205
 Propositional knowledge, 166
 Propranolol, 120

R

Raclopride, 119
 Rapid Visual Information Processing (RVIP) task, 199
 Recall-by-genotype, 30
 Regional cerebral blood flow, 196
 Reinforcement value, 166
 Replacement therapy, 181
 Response inhibition, 200
 Reward processing, 204
 RG3487, 115, 118

S

SCH23390, 119
 Schizophrenia, 104, 118, 121, 123
 Selective attention, 108
 Sensory gating, 121
 Serotonergic, 93, 95, 97, 98
 Serotonin, 37, 38, 53, 67–71
 Set shifting, 109, 115
 SIB-1553A, 115
 SIB 1765F, 115
 Side effects, 106
 Smokers, 105
 Smoking, 37–40, 42–49, 51–71, 105
 Smoking perseveration, 179
 Spatial learning, 144
 SSR-180711, 115
 Stimulus detection, 108
 Stoichiometry, 9
 Stress, 172

Stroop effect, 108
Subunit composition, 1, 9, 10, 12, 14
Subunit compositions, 12
Sustained attention, 107, 198

T

TC-5619, 118
Thalamus, 92, 93
Three-term relationship, 166
Titration, 168
Tolerance, 106, 112, 113, 167
Trace fear conditioning, 145

U

Utility, 168

V

Validity effect, 111
Varenicline, 122, 181
Vigilance, 107

W

Withdrawal, 105, 123
Working memory, 107, 144, 201