

# Author Index, Volume 13, 2006

- Abel, T., 135, 241, 609, 745  
Acosta, G.B., 376  
Adolphs, R., 382  
Adorno, M., 734  
Agin, V., 97  
Akalal, D.-B.G., 659  
Akbarian, S., 307  
Akirav, I., 254  
Anderson, A.K., 650, 711  
Antzoulatos, E.G., 422  
Aonuma, H., 35  
Aragona, B.J., 558  
Arnsten, A.F.T., 770  
Attner, M.A., 609  
Baldi, E., 426  
Barad, M., 108, 560  
Baratti, C.M., 376  
Barkai, E., 566  
Barker, G.R.I., 178  
Bashir, Z.I., 178  
Bates, B., 307  
Baxter, D.A., 669  
Bellgowan, P.S.F., 638  
Berger-Sweeney, J., 4  
Berlau, D.J., 27  
Bermúdez-Rattoni, F., 45  
Bevilaqua, L.R.M., 431  
Biedenkapp, J.C., 1  
Blake, M.G., 376  
Blandina, P., 426  
Blanding, N.Q., 441  
Boccia, M.M., 376  
Boehm, J., 562  
Bogart, A.R., 536  
Boix-Trelis, N., 783  
Bolding, K., 1  
Bolding, K., 278  
Born, J., 259  
Bourtchouladze, R., 745  
Brembs, B., 618, 629  
Bright, P., 545  
Brindle, P.K., 609  
Broadbent, N.J., 187  
Brown, M.W., 178  
Buchanan, T.W., 382  
Bucherelli, C., 426  
Buckman, J., 545  
Buffalo, E.A., 638  
Burke, K.A., 416  
Bussey, T.J., 103  
Byrne, J.H., 422, 669  
Caboche, J., 349  
Cammorota, M., 431  
Capron, B., 271  
Carelli, R.M., 558  
Carew, T.J., 224  
Cattarelli, M., 150  
Chang, C.-h., 14  
Chen, X.Y., 208  
Cheng, J., 168  
Cheng, R.-K., 127  
Chichery, M.-P., 97  
Chichery, R., 97  
Chwang, W.B., 322  
Clark, R.E., 187  
Cleary, L.J., 422  
Coats, J.K., 143  
Cohen, T.E., 397  
Colchester, A.C.F., 545  
Collatz, J., 263  
Colón, N., 734  
Colón-Cesario, W.I., 734  
Costa-Miserachs, D., 783  
Cruz, J., 734  
Daitche, F., 150  
Dalrymple-Alford, J.C., 388  
Darby-King, A., 8  
Dardou, D., 150  
Davis, M., 216, 681  
Davis, R.L., 659  
de Ibarra, N.H., 629  
de Noordhout, A.M., 580  
de Ortiz, S.P., 734  
Derrick, B.E., 52  
Deschaux, O., 329  
Desmedt, A., 349  
Dickel, L., 97  
Diegelmann, S., 72  
Diegues Jr., D., 52  
Ding, H.-K., 451  
Disterhoft, J.F., 201  
Do, V.H., 52  
Duncan, E.J., 681  
Ehrlich, I., 562  
Elkobi, A., 571  
Farinelli, M., 329  
Feenstra, M.G.P., 168  
Félix, J., 734  
Fellini, L., 473  
Ferreira, G., 254  
Florian, C., 335, 465  
Foltz, J., 335  
Fontanini, A., 794  
Fradera, A., 545  
Frankland, P.W., 451  
Franz, T.M., 416  
Freeman, J.H., 359  
Frenguelli, B., 760  
Gais, S., 259  
Garcia, R., 14, 329  
Gaskin, S., 119  
Gean, P.-W., 316  
Gluck, M.A., 230  
Godaux, E., 271  
Gold, J.J., 644, 699  
Gold, P.E., 506  
Grabski, W., 711  
Griffith, L.C., 686  
Gugsa, N., 416  
Guillazo-Blanch, G., 783  
Guillou, J.-L., 342  
Hannenhalli, S., 135  
Harley, C.W., 8  
Harrison, F.E., 809  
Hars, B., 515  
Hauber, W., 123, 777  
Havekes, R., 753  
Hawk, J.D., 241  
Hawkins, R.D., 397  
Hellman, K., 135  
Hellweg, R., 63  
Henry, C., 349  
Hernandez, P.J., 599  
Hoover, B.A., 820  
Hopkins, R.O., 230, 644  
Hotermans, C., 580  
Hsieh, H., 562  
Hsu, W.L., 114  
Huang, Y.-Y., 298  
Huber, R., 63  
Hugues, S., 329  
Hunsaker, M.R., 458  
Isiegas, C., 135  
Ito, K., 659  
Ivshitz, M., 719  
Izquierdo, I., 431  
Jacobson-Pick, S., 571  
Jaenisch, R., 307  
Jaffard, R., 342  
Jeffery, K.J., 287  
Jerman, T., 458  
Joëls, M., 110  
Jones, F.L., 52  
Jovanovic, T., 681  
Kaczmarek, L., 192  
Kandel, E.R., 298, 397, 745  
Karni, A., 571  
Kasai, Y., 482  
Katz, D.B., 794  
Keeley, M.B., 135  
Kehoe, E.J., 366  
Kelley, A.E., 599  
Kelly, M.P., 745  
Kesner, R.P., 458  
Khatsrinov, V., 254  
Kida, S., 451  
Kirino, Y., 267, 482  
Kiselycznyk, C.L., 575  
Knapska, E., 192  
Knierim, J.J., 405  
Kopelman, M.D., 545  
Kreibich, A., 745  
Krugers, H., 110  
Kudoh, M., 690  
Kühl, A., 63  
Kuhn, C.M., 441  
Kuo, A.G., 201  
Kuulmann-Vander, S., 571  
LaBar, K.S., 441  
Lacka, D., 711  
Lavenex, P., 84  
Lavenex, P.B., 84  
Lebel, D., 566  
Lee, E.H.Y., 114  
Lee, G., 201  
Leung, L.S., 18  
Levenson, J.M., 322  
Levy, D.A., 106  
Lin, H.-C., 316  
Linster, C., 575  
Lipp, H.-P., 192  
Lohmann, P., 63  
Lu, B., 307  
Lucas, B., 259  
Luiten, P.G.M., 753  
Lunday, L., 801  
Ma, Y.L., 114  
Maldonado-Vlaar, C.S., 734  
Malinow, R., 562  
Mao, S.-C., 316  
Maquet, P., 580  
Maren, S., 14  
Marinesco, S., 224  
Mariottini, C., 426  
Maroun, M., 254  
Martel, G., 342  
Martin, A., 638  
Martin, S.J., 760  
Martínez-Montemayor, M.M., 734  
Martí-Nicolovius, M., 783  
Matsumoto, Y., 35  
Matsuo, R., 482  
Matzel, L.D., 491  
Mayford, M., 143  
McCann, J., 8  
McDonald, M.P., 809  
McGaugh, J.L., 27  
McKinney, B.C., 584  
McLean, J.H., 8  
McNally, G.P., 245  
Meck, W.H., 127  
Medina, J.H., 431  
Meeter, M., 230  
Mehren, J.E., 686  
Merhav, M., 254, 571  
Micheau, J., 349  
Millard, A., 342  
Miller, C.A., 498  
Miller, R.R., 491  
Millin, P.M., 536  
Miner, C., 801  
Minini, L., 287  
Mitchell, A.S., 388  
Mizunami, M., 35  
Mohi-uddin, S., 650  
Moineau, J., 1  
Mons, N., 349, 465  
Moonen, G., 580  
Morales, S., 734  
Morellini, F., 473  
Moriceau, S., 590, 801  
Morris, R.G.M., 760  
Müller, C., 263  
Murphy, G.G., 584  
Murray, E.A., 103  
Murschall, A., 123  
Myers, C.E., 230  
Myers, K.M., 216, 681  
Nader, K., 489, 530  
Neuhäusser-Wespy, F., 192  
Nguyen, H., 820  
Nijholt, I.M., 753  
Nikolaev, E., 192  
Nolan, B.C., 359  
Norrell, J.-C., 335  
Norrholm, S.D., 681  
O'Carroll, C.M., 760  
O'Riordan, K.J., 322  
Oliveira, A.M.M., 609  
Passani, M.B., 426  
Patterson, S.L., 745  
Peigneux, P., 580  
Pereira, L., 734  
Phillips, G.T., 224  
Pletcher, M.T., 143  
Power, A.E., 27  
Quinlan, E.M., 566

- Quirk, G.J., 728  
 Ramírez-Lugo, L., 45  
 Ramos, B.P., 770  
 Rauch, S.L., 728  
 Reijmers, L.G., 143  
 Reiserer, R.S., 809  
 Ressler, K.J., 216  
 Riccio, D.C., 536  
 Richter, J.D., 4  
 Riedel, G., 349  
 Riepe, M.W., 63  
 Ris, L., 271  
 Rosenblum, K., 254, 571  
 Rossato, J.I., 431  
 Roth, T.L., 590, 801  
 Rothbaum, B.O., 681  
 Rougon, G., 335  
 Roulett, P., 335, 465  
 Rudy, J.W., 1, 278  
 Sakata, K., 307  
 Saksida, L.M., 103  
 Sanberg, C.D., 52  
 Sandin, J., 760  
 Santa, T., 267  
 Sapoznik, S., 719  
 Sara, S.J., 515  
 Schachner, M., 473  
 Schlitz, C.A., 599  
 Schoenbaum, G., 416  
 Schweimer, J., 777  
 Segal, M., 719  
 Shen, B., 18  
 Shibuki, K., 690  
 Shimazu, K., 307  
 Shionoya, K., 801  
 Shirahata, T., 267  
 Shohamy, D., 230  
 Shrager, Y., 106  
 Sidhu, N., 566  
 Silva, A.J., 451  
 Sindic, C., 271  
 Squire, L.R., 106, 187, 522,  
     644, 699  
 Stark, D., 770  
 Steidl, S., 650  
 Steidle, J.L.M., 263  
 Stein, J., 135  
 Steward, O., 27  
 Sullivan, R.M., 590, 801  
 Suzuki, A., 451  
 Swant, J., 161  
 Sweatt, J.D., 322, 498  
 Takahashi, E., 451  
 Tanaka, N.K., 659  
 Tarantino, L.M., 143  
 Thevenet, A., 329  
 Thompson, L., 820  
 Tomarken, A.J., 809  
 Tranel, D., 382  
 Trifilieff, P., 349  
 Tsai, M.C., 114  
 Tsunoda, M., 267  
 Tzvetkova, E.I., 224  
 Unoki, S., 35  
 Vale-Martínez, A., 783  
 Van der Zee, E.A., 753  
 van Dyck, C.H., 770  
 Vanhoutte, P., 349  
 Verduzco, L., 770  
 Vervliet, B., 681  
 Vidal-Gonzalez, B., 728  
 Vidal-Gonzalez, I., 728  
 Vouimba, R.-M., 254  
 Wagner, J.J., 161  
 Wainwright, M.L., 422  
 Walasek, G., 192  
 Wang, S.-H., 530  
 Wang, Y., 794  
 Warburton, E.C., 178  
 Watanabe, S., 267, 482  
 Werka, T., 192  
 Westbrook, R.F., 245  
 White, N.M., 119  
 Wiegert, O., 110  
 Wiener, J., 618  
 Williams, C.L., 127  
 Wilson, C.F., 659  
 Wiltshire, T., 143  
 Wolpaw, J.R., 208  
 Wood, M.A., 135, 241, 609  
 Wright, W.G., 820  
 Yamaguchi, Y., 711  
 Yoshimasu, H., 545  
 Zars, M., 72  
 Zars, T., 72  
 Zavala-Vega, S., 45  
 Zearfoss, N.R., 4  
 Zhang, S., 575  
 Zhao, M., 307  
 Zong, L., 659  
 Zorawski, M., 441

# Subject Index, Volume 13, 2006

## A

ABC transporter *white*, *Drosophila* heat-box spatial learning and genetic dissociation of acquisition and memory strength, 72–82

ACC. *See* Anterior cingulate cortex

AD. *See* Alzheimer disease

Adenylyl cyclase  
*Drosophila* heat-box spatial learning and genetic dissociation of acquisition and memory strength, 72–82  
hippocampal adenylyl cyclase stimulation and dissociation of memory consolidation processes for response and place learning, 342–347

Adrenergic receptors  
 $\alpha$ 2A-adrenergic receptor stimulation and prefrontal cortex performance in aging animals, 770–775  
odor preference learning and adrenergic receptor activation in rat pups, 8–12

Afterdischarge, hippocampal CA1 kindling effects on spatial memory performance in rat, 18–25

Aging  
 $\alpha$ 2A-adrenergic receptor stimulation and prefrontal cortex performance in aging animals, 770–775  
geometry for orientation studies in aged mice, 473–480  
synaptic plasticity, age-dependent glutamate induction in cultured hippocampal neurons, 719–726

Alzheimer disease (AD), mouse model studies of maze performance and early impairment neurotrophin markers, 63–69

Amnesia  
consolidation role, 515–519  
fading in of memories, 530–534  
lesion distribution and retrograde amnesia characteristics, 545–556  
memory formation relationships, 506–511  
memory impairment nature, 522–528  
neurohistological analysis in humans, 699–709  
reconsolidation studies, 498–504, 536–543  
retrieval failure versus memory loss, 491–496  
retrieval impairment versus storage impairment views, 530–534

Amygdala  
aversive memory reactivation and neurotransmitters in consolidation, 426–428  
cannabinoid receptor agonist infusion in amygdala in reconsolidation of fear-potentiated startle, 316–320  
fear conditioning and differential transcriptional response of associative and nonassociative components, 135–142

c-Fos expression in appetitive versus aversive learning, 192–199  
odor-malaise learning and developmental switch in neural circuitry, 801–805  
selective memory enhancement studies in humans, 711–716  
social transmission of food preference basolateral amygdala lesion effects, 794–799  
taste-potentiated odor aversion retrieval, Fos and Egr1 expression response in rat brain, 150–159

Anisomycin  
conditioned taste aversion extinction and protein synthesis in ventromedial prefrontal cortex, 254  
reconsolidation hypothesis studies, 1–3, 27–33  
retrieval induction of hippocampal-dependent reconsolidation of spatial memory, 431–438  
stability of recent and remote contextual fear memory studies, 451–456

Anterior cingulate cortex (ACC)  
dopamine D1 receptor regulation of effort-based decision making, 777–781  
stability of recent and remote contextual fear memory, 451–456

Antisense oligodeoxynucleotides  
CREB antisense studies in CA3 region of memory impairment, 465–471  
Nurr1 knockdown effects on spatial memory in rat hippocampus, 734–742

*Aplysia*  
dishabituation mechanisms, 397–402  
feeding behavior and molecular mechanisms of classical and operant conditioning, 669–678  
latent memory for sensitization, 224–229  
long-term sensitization priming for further learning, 422–424

Appetite  
*Aplysia* feeding behavior and molecular mechanisms of classical and operant conditioning, 669–678  
amygdala c-Fos expression in appetitive versus aversive learning, 192–199

Associative memory  
comparison in psiids, 820–825  
hippocampus-damaged patient studies, 644–648

Auditory cortex, dopamine D2 receptor activation in rat and sound sequence discrimination learning, 690–697

## B

Barnes maze, spatial and nonspatial escape strategies, 809–817

BDNF. *See* Brain-derived neurotrophic factor

Brain-derived neurotrophic factor (BDNF), mouse Alzheimer disease model studies of maze performance and early impairment neurotrophin markers, 63–69

Buccal motor patterns, *Aplysia* feeding behavior and molecular mechanisms of classical and operant conditioning, 669–678

## C

Calcineurin, learning and reversal learning role in Y-maze task, 753–758

Calcium/calmodulin-dependent protein kinase II (CaMKII), courtship suppression enhancement in *Drosophila*, 686–689

Calcium channel, L-type voltage-gated calcium channel Ca<sub>v</sub>1.3 in fear conditioning, 560–561, 584–589

CaMKII. *See* Calcium/calmodulin-dependent protein kinase II

Cannabinoid receptor, agonist infusion in amygdala in reconsolidation of fear-potentiated startle, 316–320

CBP. *See* CREB-binding protein

C/EBP $\beta$ , insular cortex expression studies of taste memory consolidation kinetics, 571–574

Cerebellum  
motor skill maintenance, 208–213  
Purkinje cell loss by immunotoxin OX7-saporin impairment of acquisition and extinction of eyeblink conditioning, 359–364

Choline, prenatal nicotine and choline synergistic effects on temporal memory in rat, 127–133

Chromatin  
combinatorial modifications and memory storage, 241–243  
mitogen-activated protein kinase, hippocampal histone phosphorylation regulation following contextual fear conditioning, 322–327

Cingulate cortex. *See* Anterior cingulate cortex

Cocaine, fear conditioning extinction disruption, 416–420

Color, *Drosophila melanogaster* context and occasion setting in visual learning, 618–626

Conditioned taste aversion (CTA)  
extinction and protein synthesis in ventromedial prefrontal cortex, 254  
nucleus accumbens *N*-methyl-D-aspartate and muscarinic receptor roles, 45–50  
social transmission of food preference basolateral amygdala lesion effects, 794–799

Consolidation  
amnesia role, 506–511, 515–519  
aversive memory reactivation and

- amygdala neurotransmitters in consolidation, 426–428
- foreground contextual fear memory consolidation and hippocampal ERK/CREB activation phases, 349–356
- hippocampal adenylyl cyclase stimulation and dissociation of memory consolidation processes for response and place learning, 342–347
- insular cortex C/EBP $\beta$  expression studies of taste memory consolidation kinetics, 571–574
- L-type voltage-gated calcium channel Ca<sub>v</sub>1.3 role in fear conditioning, 584–589
- motor skill learning, early boost and slow consolidation, 580–583
- stress and sex effects in humans, 441–448
- Corticosterone, timing effects on hippocampus synaptic potentiation in mouse, 110–112
- Cortisol
- fear conditioning and consolidation effects of stress and sex in humans, 441–448
- memory retrieval impairment and cortisol response in humans, 382–386
- CPEB
- antisense studies in CA3 region of memory impairment, 465–471
- foreground contextual fear memory consolidation and hippocampal ERK/CREB activation phases, 349–356
- knockout mouse studies of hippocampal-dependent memory extinction, 4–7
- CREB-binding protein (CBP), transcription factor-binding domain mutant studies of long-term memory, 609–615
- Cricket, nitric oxide-cyclic GMP cascade role in cyclic AMP-dependent long-term memory, 35–43
- CTA. *See* Conditioned taste aversion
- Cuttlefish, prawn in the tube training and habituation, 97–100
- D**
- DAT. *See* Dopamine transporter
- Dentate gyrus, disconnection analysis of CA3 and dentate gyrus in encoding spatial maze learning task, 458–463
- Discrimination learning, *Drosophila melanogaster* generalization and discrimination learning in flight simulator, 629–636
- Dishabituation, *Aplysia* dishabituation mechanisms, 397–402
- DNA microarray, fear conditioning and differential transcriptional response of associative and nonassociative components, 135–142
- Dolabrifera dolabrifera*, associative memory comparison between plysiids, 820–825
- Dopamine receptors
- D1 receptors in anterior cingulate cortex regulation of effort-based decision making, 777–781
- D2 receptor activation in rat auditory cortex and sound sequence discrimination learning, 690–697
- D3 receptor agonist effects on long-term potentiation in rat, 161–166
- dopaminergic modulation of persistence of one-trial hippocampus-dependent memory, 760–767
- Dopamine transporter (DAT), antagonist effects on long-term potentiation, 161–166
- Drosophila melanogaster*
- calcium/calmodulin-dependent protein kinase II and courtship suppression enhancement, 686–689
- context and occasion setting in visual learning, 618–626
- generalization and discrimination learning in flight simulator, 629–636
- heat-box spatial learning and genetic dissociation of acquisition and memory strength, 72–82
- mushroom body roles in olfactory learning and memory, 659–667
- Dynamic neuroplasticity, automation of motivated behavior, 558–559
- E**
- Egr1
- corticostriatal expression patterns during instrumental training, 599–607
- taste-potentiated odor aversion retrieval expression response in rat brain, 150–159
- Emotional memory
- emotional arousal and memory effects in humans, 650–657
- selective memory enhancement studies in humans, 711–716
- Entorhinal cortex, taste-potentiated odor aversion retrieval, Fos and Egr1 expression response in rat brain, 150–159
- ENU mutagenesis. *See* N-Ethyl-N-nitrosourea mutagenesis
- ERK. *See* Extracellular signal-regulated kinase
- N-Ethyl-N-nitrosourea (ENU) mutagenesis, fear conditioning mouse mutant, 143–148
- Extinction
- anisomycin and reconsolidation hypothesis studies, 1–3, 27–33
- cocaine and fear conditioning extinction disruption, 416–420
- conditioned taste aversion and protein synthesis in ventromedial prefrontal cortex, 254
- CPEB knockout mouse studies of hippocampal-dependent memory extinction, 4–7
- fear conditioning mechanisms, 108–109, 216–222
- hippocampal train stimulation modulation of recall of fear extinction, 329–333
- human fear-potentiated startle paradigm conditioned fear extinction and reinstatement, 681–684
- medial prefrontal cortex electrolytic lesions and conditioned fear extinction, 14–17
- microstimulation studies of medial prefrontal cortex in conditioned fear expression, 728–732
- nictitating membrane response conditioning, repeated acquisitions and extinctions, 366–373
- Purkinje cell loss by immunotoxin OX7-saporin impairment of acquisition and extinction of eyeblink conditioning, 359–364
- Extracellular signal-regulated kinase (ERK)
- foreground contextual fear memory consolidation and hippocampal ERK/CREB activation phases, 349–356
- hippocampal histone phosphorylation regulation following contextual fear conditioning, 322–327
- Eyeblink conditioning
- Purkinje cell loss by immunotoxin OX7-saporin impairment of acquisition and extinction of eyeblink conditioning, 359–364
- simultaneous training on two hippocampus-dependent tasks and facilitation of trace eyeblink conditioning, 201–207
- F**
- Fear conditioning
- aversive memory reactivation and amygdala neurotransmitters in consolidation, 426–428
- cannabinoid receptor agonist infusion in amygdala in reconsolidation of fear-potentiated startle, 316–320
- cannabinoid receptor agonist infusion in amygdala in reconsolidation of fear-potentiated startle, 316–320
- cocaine and fear conditioning extinction disruption, 416–420
- CREB-binding protein transcription factor-binding domain mutant studies of long-term memory, 609–615
- DNA microarray studies of differential transcriptional response of associative and nonassociative components, 135–142
- extinction mechanisms, 108–109, 216–222
- foreground contextual fear memory consolidation and hippocampal ERK/CREB activation phases, 349–356
- G $\alpha$  chronic signaling and disruption of associative and spatial learning, 745–751
- hippocampal train stimulation modulation of recall of fear extinction, 329–333
- human fear-potentiated startle paradigm conditioned fear extinction and reinstatement, 681–684
- L-type voltage-gated calcium channel Ca<sub>v</sub>1.3 role, 560–561, 584–589
- medial prefrontal cortex electrolytic lesions and conditioned fear extinction, 14–17
- microstimulation studies of medial prefrontal cortex in conditioned fear expression, 728–732
- mitogen-activated protein kinase, hip-

- pocampal histone phosphorylation regulation following contextual fear conditioning, 322–327  
 mouse *N*-ethyl-*N*-nitrosourea mutant, 143–148  
 predictive fear learning, 245–252  
 stability of recent and remote contextual fear memory, 451–456  
 stress and sex effects in humans, 441–448  
 Feeding behavior, *Aplysia* feeding behavior and molecular mechanisms of classical and operant conditioning, 669–678  
 Food preference. *See* Social transmission of food preference  
 Fos  
   c-Fos  
     amygdala expression in appetitive versus aversive learning, 192–199  
     nucleus magnocellularis stimulation effects on socially transmitted food preference and c-Fos expression, 783–791  
     opioid expression modulation studies of olfactory memory, 590–596  
     taste-potentiated odor aversion retrieval expression response in rat brain, 150–159  
 Functional magnetic resonance imaging. *See* Magnetic resonance imaging
- G**
- GABA receptors, ventral tegmental area inactivation with agonists for Pavlovian-instrument transfer studies, 123–126  
 Galvanic skin response (GSR), selective memory enhancement studies in humans, 711–716  
 Geometry orientation, aged versus young mice, 473–480  
 GluR1, PDZ-ligand domain mutation effects on synaptic plasticity, 562–565  
 G<sub>s</sub>α, chronic signaling and disruption of associative and spatial learning, 745–751  
 GSR. *See* Galvanic skin response
- H**
- Habituation, cuttlefish prawn in the tube training studies, 97–100  
 Hemicholinium, intracerebroventricular injection studies of memory age in retrieval, 376–380  
 Hippocampus. *See also* Long-term potentiation  
   CA1 kindling effects on spatial memory performance in rat, 18–25  
   calcineurin, learning and reversal learning role in Y-maze task, 753–758  
   corticosterone timing effects on synaptic potentiation in mouse, 110–112  
   CPEB knockout mouse studies of hippocampal-dependent memory extinction, 4–7  
   CREB antisense studies in CA3 region of memory impairment, 465–471  
   CREB-binding protein transcription factor-binding domain mutant studies of long-term memory, 609–615  
   disconnection analysis of CA3 and dentate gyrus in encoding spatial maze learning task, 458–463  
   dopaminergic modulation of persistence of one-trial hippocampus-dependent memory, 760–767  
   dorsal hippocampus function in spatial discrimination, 119–121  
   dorsal hippocampus, stability of recent and remote contextual fear memory, 451–456  
   fear conditioning and differential transcriptional response of associative and nonassociative components, 135–142  
   foreground contextual fear memory consolidation and hippocampal ERK/CREB activation phases, 349–356  
   G<sub>s</sub>α chronic signaling and disruption of associative and spatial learning, electrophysiology studies of slices, 745–751  
   neural cell adhesion molecule polysialic acid mimetic peptide injection effect on spatial memory, 335–340  
   neurotrophin-3 in function modulation, 307–314  
   Nurr1 knockdown effects on spatial memory in rat, 734–742  
   paired-pulse stimulation and late long-term potentiation enhancement in hippocampal slices, 298–305  
   place-related firing properties outside hippocampus, 405–412  
   retrieval induction of hippocampal-dependent reconsolidation of spatial memory, 431–438  
   reversible lesion studies of spatial memory in rat, 187–190  
   serum- and glucocorticoid-inducible kinase, long-term potentiation role, 114–117  
   single-item memory and associative memory in brain-damaged patients, 644–648  
   slice recovery effects in long-term potentiation studies, 271–277  
   synaptic plasticity, age-dependent glutamate induction in cultured neurons, 719–726  
   taste-potentiated odor aversion retrieval, Fos and Egr1 expression response in rat brain, 150–159  
   train stimulation modulation of recall of fear extinction, 329–333  
 Histone. *See* Chromatin  
*Homer1*, corticostriatal expression patterns during instrumental training, 599–607  
 H-reflex, operant conditioning, 208–213
- I**
- Immunohistochemistry  
   amygdala c-Fos expression in appetitive versus aversive learning, 192–199  
   calcineurin, learning and reversal learning role in Y-maze task, 753–758  
   calcium/calmodulin-dependent protein kinase II and courtship suppression enhancement in *Drosophila*, 686–689  
   CREB antisense studies in CA3 region of memory impairment, 465–471  
   CREB-binding protein transcription factor-binding domain mutant studies of long-term memory, 609–615  
   Fos and opioid expression modulation studies of olfactory memory, 590–596  
   nucleus magnocellularis stimulation effects on socially transmitted food preference and c-Fos expression, 783–791  
   Nurr1 knockdown effects on spatial memory in rat hippocampus, 734–742  
   taste-potentiated odor aversion retrieval, Fos and Egr1 expression response in rat brain, 150–159  
 Infralimbic cortex, taste-potentiated odor aversion retrieval, Fos and Egr1 expression response in rat brain, 150–159  
 In situ hybridization, immediate early gene corticostriatal expression patterns during instrumental training, 599–607  
 Insular cortex  
   C/EBPβ expression studies of taste memory consolidation kinetics, 571–574  
   taste-potentiated odor aversion retrieval, Fos and Egr1 expression response in rat brain, 150–159
- K**
- Kindling, hippocampal CA1 kindling effects on spatial memory performance in rat, 18–25  
 Korsakoff's syndrome, amnesia neurohistological analysis in humans, 699–709
- L**
- Landmark orientation, aged versus young mice, 473–480  
*Lariophagus distinguendus*, protein synthesis-dependent long-term memory, 263–266  
 Latent memory, *Aplysia* sensitization studies, 224–229  
 Lesion  
   brain distribution and retrograde amnesia characteristics, 545–556  
   dopamine D2 receptor activation in rat auditory cortex and sound sequence discrimination learning, 690–697  
   hippocampal reversible lesion studies of spatial memory in rat, 187–190  
   medial prefrontal cortex electrolytic lesions and conditioned fear extinction, 14–17

- social transmission of food preference  
basolateral amygdala lesion effects, 794–799
- thalamic lateral and anterior lesion impairment of independent memory systems, 388–395
- Limax valentianus*  
procerebrum and odor-aversion learning role, 482–487  
serotonin depletion effects on short-term memory, 267–270
- Long-term depression (LTD), synaptic plasticity and age-dependent glutamate induction in cultured hippocampal neurons, 719–726
- Long-term memory, nitric oxide-cyclic GMP cascade role in cyclic AMP-dependent long-term memory, 35–43
- Long-term potentiation (LTP)  
corticosterone timing effects on hippocampus synaptic potentiation in mouse, 110–112  
dopamine transporter antagonist effects in rat, 161–166  
dopaminergic modulation of persistence of one-trial hippocampus-dependent memory, 760–767  
hippocampal slice recovery effect studies, 271–277  
hippocampal train stimulation modulation of recall of fear extinction, 329–333  
paired-pulse stimulation and late long-term potentiation enhancement in hippocampal slices, 298–305  
serotonin receptor 5-HT<sub>1a</sub> antagonist blocking of dentate long-term potentiation in rat, 52–61  
serum- and glucocorticoid-inducible kinase role, 114–117  
synaptic plasticity, age-dependent glutamate induction in cultured hippocampal neurons, 719–726
- Long-term sensitization (LTS), priming for further learning in *Aplysia*, 422–424
- LTD. *See* Long-term depression  
LTP. *See* Long-term potentiation  
LTS. *See* Long-term sensitization
- M**
- Magnetic resonance imaging (MRI)  
lesion distribution and retrograde amnesia characteristics, 545–556  
medial temporal lobe functional magnetic resonance imaging studies of object and location memory, 638–642
- MAPK. *See* Mitogen-activated protein kinase
- Medial prefrontal cortex (mPFC). *See also* Prefrontal cortex  
electrolytic lesions in rat and conditioned fear extinction, 14–17  
microstimulation studies of conditioned fear expression, 728–732
- Medial temporal lobe (MTL)  
amnesia neurohistological analysis in humans, 699–709  
functional magnetic resonance imaging studies of object and location memory, 638–642  
visual perception studies, 106–107
- Metabotropic glutamate receptors (mGluRs), recognition memory roles, 178–185
- N-Methyl-D-aspartate receptor (NMDAR)  
learning-induced changes, 566–569  
nucleus accumbens receptors in attenuation of neophobia after conditioned taste aversion, 45–50  
synaptic plasticity, age-dependent glutamate induction in cultured hippocampal neurons, 719–726
- mGluRs. *See* Metabotropic glutamate receptors
- Microdialysis, dopamine efflux in nucleus accumbens shell and core during instrumental learning, 168–176
- Microstimulation, medial prefrontal cortex regions and conditioned fear expression, 728–732
- Mitogen-activated protein kinase (MAPK), hippocampal histone phosphorylation regulation following contextual fear conditioning, 322–327
- Mitral cell, odor preference learning and adrenergic receptor activation in rat pups, 8–12
- Monkey. *See* Rhesus monkey
- Morris water maze  
G<sub>s</sub>α chronic signaling and disruption of associative and spatial learning, 745–751  
L-type voltage-gated calcium channel Ca<sub>v</sub>1.3 role in fear conditioning, 584–589  
simultaneous training on two hippocampus-dependent tasks and facilitation of trace eyeblink conditioning, 201–207  
spatial memory optimization in Morris water task, 278–285
- Motor skill learning, early boost and slow consolidation, 580–583
- Mouse  
Alzheimer disease model studies of maze performance and early impairment neurotrophin markers, 63–69  
amygdala c-Fos expression in appetitive versus aversive learning, 192–199  
calcineurin, learning and reversal learning role in Y-maze task, 753–758  
corticosterone timing effects on hippocampus synaptic potentiation, 110–112  
CPEB knockout mouse studies of hippocampal-dependent memory extinction, 4–7  
CREB antisense studies in CA3 region of memory impairment, 465–471  
CREB-binding protein transcription factor-binding domain mutant studies of long-term memory, 609–615  
fear conditioning and differential transcriptional response of associative and nonassociative components, 135–142  
fear conditioning N-ethyl-N-nitrosourea mutant, 143–148  
foreground contextual fear memory consolidation and hippocampal ERK/CREB activation phases, 349–356  
geometry for orientation studies in aged mice, 473–480  
G<sub>s</sub>α chronic signaling and disruption of associative and spatial learning, 745–751  
hemicholinium intracerebroventricular injection studies of memory age in retrieval, 376–380  
hippocampal adenylyl cyclase stimulation and dissociation of memory consolidation processes for response and place learning, 342–347  
L-type voltage-gated calcium channel Ca<sub>v</sub>1.3 role in fear conditioning, 584–589  
neural cell adhesion molecule polysialic acid mimetic peptide injection in hippocampus effect on spatial memory, 335–340  
neurotrophin-3 in hippocampal function modulation, 307–314  
paired-pulse stimulation and late long-term potentiation enhancement in hippocampal slices, 298–305  
stability of recent and remote contextual fear memory, 451–456  
mPFC. *See* Medial prefrontal cortex  
MTL. *See* Medial temporal lobe  
Muscarinic receptor, nucleus accumbens receptors in attenuation of neophobia after conditioned taste aversion, 45–50  
Mushroom bodies  
context and occasion setting in visual learning in *Drosophila melanogaster*, 618–626  
olfactory learning and memory roles in *Drosophila melanogaster*, 659–667
- N**
- nAChR. *See* Nicotinic acetylcholine receptor
- NBM. *See* Nucleus magnocellularis
- NCAM. *See* Neural cell adhesion molecule
- Neophobia, nucleus accumbens receptors in attenuation of neophobia after conditioned taste aversion, 45–50
- Nerve growth factor (NGF), mouse Alzheimer disease model studies of maze performance and early impairment neurotrophin markers, 63–69
- Neural cell adhesion molecule (NCAM), polysialic acid mimetic peptide injection in hippocampus effect on spatial memory, 335–340
- Neurohistology  
α<sub>2A</sub>-adrenergic receptor stimulation and working memory performance in aging animals, 770–775  
amnesia analysis in humans, 699–709  
anterior cingulate cortex dopamine D1 receptor regulation of effort-based decision making, 777–781  
dopaminergic modulation of persistence of one-trial hippocampus-dependent memory, 760–767  
nucleus magnocellularis stimulation effects on socially transmitted food preference and c-Fos expression, 783–791

- Neurotrophin-3 (NT-3)  
 hippocampal function modulation, 307–314  
 mouse Alzheimer disease model studies of maze performance and early impairment neurotrophin markers, 63–69
- NGF. *See* Nerve growth factor
- Nicotinic acetylcholine receptor (nAChR), prenatal nicotine and choline effects on temporal memory in rat, 127–133
- Nictitating membrane response conditioning, repeated acquisitions and extinctions in rabbit, 366–373
- Nitric oxide (NO), cyclic GMP cascade role in cyclic AMP-dependent long-term memory, 35–43
- NMDAR. *See* N-Methyl-D-aspartate receptor
- NO. *See* Nitric oxide
- NT-3. *See* Neurotrophin-3
- Nucleus accumbens, dopamine efflux in shell and core during instrumental learning, 168–176
- Nucleus magnocellularis (NBM), stimulation effects on socially transmitted food preference and c-Fos expression, 783–791
- O**
- Odor-aversion learning  
 procerebrum role in *Limax valentianus*, 482–487  
 taste-potentiated odor aversion, Fos and Egr1 expression and retrieval response in rat brain, 150–159
- Odor-malaise learning, developmental switch in neural circuitry, 801–805
- Odor preference learning, adrenergic receptor activation in rat pups, 8–12
- Olfactory bulb  
 centrifugal projections in olfactory processing, 575–578  
 Fos and opioid expression modulation studies of olfactory memory, 590–596  
 odor-malaise learning and developmental switch in neural circuitry, 801–805
- Olfactory conditioning, nitric oxide-cyclic GMP cascade role in cricket cyclic AMP-dependent long-term memory, 35–43
- Olfactory learning  
*Drosophila melanogaster* mushroom body roles in olfactory learning and memory, 659–667  
 N-methyl-D-aspartate receptor learning-induced changes in rat, 566–569
- Operant conditioning  
*Aplysia* feeding behavior, 669–678  
*Drosophila melanogaster*  
 context and occasion setting in visual learning, 618–626  
 heat-box spatial learning and genetic dissociation of acquisition and memory strength, 72–82  
 H-reflex, 208–213
- Opioids, Fos expression modulation studies of olfactory memory, 590–596
- P**
- Paired-pulse stimulation, late long-term potentiation enhancement in hippocampal slices, 298–305
- Parietal cortex, place-related firing properties outside hippocampus, 405–412
- Pavlovian-instrument transfer (PIT), ventral tegmental area inactivation studies, 123–126
- PDZ domain, GluR1 PDZ-ligand domain mutation effects on synaptic plasticity, 562–565
- Pentylentetrazol, stability of recent and remote contextual fear memory studies, 451–456
- Perirhinal cortex. *See also* Medial temporal lobe  
 feature-ambiguous discrimination, 103–104
- Phyllaphysia taylori*, associative memory comparison between plysiids, 820–825
- Piriform cortex  
 Fos and opioid expression modulation studies of olfactory memory, 590–596  
 N-methyl-D-aspartate receptor learning-induced changes, 566–569  
 odor-malaise learning and developmental switch in neural circuitry, 801–805  
 taste-potentiated odor aversion retrieval, Fos and Egr1 expression response in rat brain, 150–159
- PIT. *See* Pavlovian-instrument transfer
- Polymerase chain reaction. *See* Reverse transcriptase-polymerase chain reaction
- Predictive learning, fear learning, 245–252
- Prefrontal cortex. *See also* Medial prefrontal cortex  
 $\alpha$ 2A-adrenergic receptor stimulation and working memory performance in aging animals, 770–775  
 place-related firing properties outside hippocampus, 405–412
- Probabilistic categorization, solution strategy analysis, 230–238
- Procerebrum, odor-aversion learning role in *Limax valentianus*, 482–487
- Protein synthesis  
 conditioned taste aversion extinction and protein synthesis in ventromedial prefrontal cortex, 254  
 inhibitors. *See* Anisomycin  
 long-term memory studies in *Lariophagus distinguendus*, 263–266  
 paired-pulse stimulation and late long-term potentiation enhancement in hippocampal slices, 298–305
- Purkinje cell, loss by immunotoxin OX7-saporin impairment of acquisition and extinction of eyeblink conditioning, 359–364
- R**
- Rabbit, nictitating membrane response conditioning, repeated acquisitions and extinctions, 366–373
- Rat  
 $\alpha$ 2A-adrenergic receptor stimulation and working memory performance in aging animals, 770–775
- amygdala c-Fos expression in appetitive versus aversive learning, 192–199
- anisomycin and reconsolidation hypothesis studies, 1–3, 27–33
- anterior cingulate cortex dopamine D1 receptor regulation of effort-based decision making, 777–781
- cannabinoid receptor agonist infusion in amygdala in reconsolidation of fear-potentiated startle, 316–320
- cerebellum and motor skill maintenance, 208–213
- cocaine and fear conditioning extinction disruption, 416–420
- conditioned taste aversion extinction and protein synthesis in ventromedial prefrontal cortex, 254
- disconnection analysis of CA3 and dentate gyrus in encoding spatial maze learning task, 458–463
- dopamine D2 receptor activation in auditory cortex and sound sequence discrimination learning, 690–697
- dopamine efflux in nucleus accumbens shell and core during instrumental learning, 168–176
- dopamine transporter antagonist effects on long-term potentiation, 161–166
- dopaminergic modulation of persistence of one-trial hippocampus-dependent memory, 760–767
- fear conditioning extinction mechanisms, 108–109, 216–222
- Fos and opioid expression modulation studies of olfactory memory, 590–596
- hippocampal CA1 kindling effects on spatial memory performance, 18–25
- hippocampal reversible lesion studies of spatial memory, 187–190
- immediate early gene corticostriatal expression patterns during instrumental training, 599–607
- medial prefrontal cortex electrolytic lesions and conditioned fear extinction, 14–17
- metabotropic glutamate receptor antagonist studies in recognition memory roles, 178–185
- N-methyl-D-aspartate receptor learning-induced changes, 566–569
- microstimulation studies of medial prefrontal cortex in conditioned fear expression, 728–732
- mitogen-activated protein kinase, hippocampal histone phosphorylation regulation following contextual fear conditioning, 322–327
- nucleus accumbens receptors in attenuation of neophobia after conditioned taste aversion, 45–50
- nucleus magnocellularis stimulation effects on socially transmitted food preference and c-Fos expression, 783–791
- Nurr1 knockdown effects on spatial memory in hippocampus, 734–742
- odor preference learning and adrenergic receptor activation in pups, 8–12
- odor-malaise learning and developmental switch in neural circuitry, 801–805

- olfactory bulb centrifugal projections in olfactory processing, 575–578
- prenatal nicotine and choline effects on temporal memory, 127–133
- Purkinje cell loss by immunotoxin OX7-saporin impairment of acquisition and extinction of eyeblink conditioning, 359–364
- retrieval induction of hippocampal-dependent reconsolidation of spatial memory, 431–438
- serotonin receptor 5-HT1a antagonist blocking of dentate long-term potentiation, 52–61
- serum- and glucocorticoid-inducible kinase, long-term potentiation role, 114–117
- shape discrimination studies, 287–297
- simultaneous training on two hippocampus-dependent tasks and facilitation of trace eyeblink conditioning, 201–207
- spatial memory optimization in Morris water task, 278–285
- synaptic plasticity, age-dependent glutamate induction in cultured hippocampal neurons, 719–726
- taste-potentiated odor aversion retrieval, Fos and Egr1 expression response in brain, 150–159
- thalamic lateral and anterior lesion impairment of independent memory systems, 388–395
- Recognition memory, metabotropic glutamate receptor roles, 178–185
- Reconsolidation
- amnesia studies, 498–504, 536–543
  - cannabinoid receptor agonist infusion in amygdala in reconsolidation of fear-potentiated startle, 316–320
  - retrieval induction of hippocampal-dependent reconsolidation of spatial memory, 431–438
- Reconsolidation hypothesis, anisomycin studies, 1–3, 27–33
- Retrograde amnesia. *See* Amnesia
- Retrospenial cortex, place-related firing properties outside hippocampus, 405–412
- Reverse transcriptase-polymerase chain reaction (RT-PCR), CREB-binding protein transcription factor-binding domain mutant studies of long-term memory, 609–615
- Rhesus monkey
- $\alpha$ 2A-adrenergic receptor stimulation and working memory performance in aging animals, 770–775
  - spatial relational memory testing in macaques, 84–95
- RT-PCR. *See* Reverse transcriptase-polymerase chain reaction
- S**
- Serotonin receptors
- 5-HT1a antagonist blocking of dentate long-term potentiation, 52–61
  - short-term memory and depletion effects in *Limax valentianus*, 267–270
- Serum- and glucocorticoid-inducible kinase (SGK), long-term potentiation role, 114–117
- Sex, fear conditioning and consolidation effects in humans, 441–448
- SGK. *See* Serum- and glucocorticoid-inducible kinase
- Shape discrimination, rat studies, 287–297
- Single-item memory, hippocampus-damaged patient studies, 644–648
- Sleep, memory recall enhancement, 259–261
- Slowlearner, fear conditioning *N*-ethyl-*N*-nitrosourea mutant, 143–148
- Slug. *See* *Limax valentianus*
- Social transmission of food preference (STFP)
- basolateral amygdala lesion effects, 794–799
  - nucleus magnocellularis stimulation effects on socially transmitted food preference and c-Fos expression, 783–791
- Spatial memory
- disconnection analysis of CA3 and dentate gyrus in encoding spatial maze learning task, 458–463
  - dorsal hippocampus function in spatial discrimination, 119–121
  - Drosophila* heat-box spatial learning and genetic dissociation of acquisition and memory strength, 72–82
  - $G_s\alpha$  chronic signaling and disruption of associative and spatial learning, 745–751
  - hippocampal CA1 kindling effects on spatial memory performance in rat, 18–25
  - medial temporal lobe functional magnetic resonance imaging studies of object and location memory, 638–642
  - neural cell adhesion molecule polysialic acid mimetic peptide injection in hippocampus effects, 335–340
  - Nurr1 knockdown effects in rat hippocampus, 734–742
  - optimization in Morris water task, 278–285
  - retrieval induction of hippocampal-dependent reconsolidation of spatial memory, 431–438
  - spatial relational memory testing in macaques, 84–95
- Startle. *See* Fear conditioning
- STFP. *See* Social transmission of food preference
- Stress
- fear conditioning and consolidation effects in humans, 441–448
  - memory retrieval impairment and cortisol response in humans, 382–386
- Striatum, place-related firing properties outside hippocampus, 405–412
- Superior colliculus, place-related firing properties outside hippocampus, 405–412
- Synaptic plasticity
- age-dependent glutamate induction in cultured hippocampal neurons, 719–726
  - GluR1 PDZ-ligand domain mutation effects, 562–565
- T**
- Taste memory, insular cortex C/EBP $\beta$  expression studies of taste memory consolidation kinetics, 571–574
- Taste-potentiated odor aversion (TPOA), Fos and Egr1 expression and retrieval response in rat brain, 150–159
- Temporal memory, prenatal nicotine and choline effects in rat, 127–133
- Thalamus, lateral and anterior lesion impairment of independent memory systems, 388–395
- T-maze
- $\alpha$ 2A-adrenergic receptor stimulation and working memory performance in aging animals, 770–775
  - anterior cingulate cortex dopamine D1 receptor regulation of effort-based decision making, 777–781
- TPOA. *See* Taste-potentiated odor aversion
- Transgenic mouse,  $G_s\alpha$  chronic signaling and disruption of associative and spatial learning, 745–751
- V**
- Ventral tegmental area (VTA), Pavlovian-instrument transfer studies, 123–126
- Ventromedial prefrontal cortex, conditioned taste aversion extinction and protein synthesis, 254
- VTA. *See* Ventral tegmental area
- W**
- Wasp. *See* *Lariophagus distinguendus*
- Weather Prediction task
- emotional arousal effects, 650–657
  - solution strategy analysis, 230–238
- Western blot
- calcineurin, learning and reversal learning role in Y-maze task, 753–758
  - N*-methyl-D-aspartate receptor learning-induced changes, 566–569
  - mitogen-activated protein kinase, hippocampal histone phosphorylation regulation following contextual fear conditioning, 322–327
  - Nurr1 knockdown effects on spatial memory in rat hippocampus, 734–742
- Working memory
- $\alpha$ 2A-adrenergic receptor stimulation and prefrontal cortex performance in aging animals, 770–775
  - thalamic lateral and anterior lesion impairment of independent memory systems, 388–395
- Y**
- Y-maze
- calcineurin, learning and reversal learning role in mouse, 753–758
  - odor-malaise learning and developmental switch in neural circuitry, 801–805
- Z**
- Zif268*. *See* Egr1