

REFERENCES

- Abe, M., Saito, M., and Shimazu, T. Neuropeptide Y and norepinephrine injected into the paraventricular nucleus of the hypothalamus activate endocrine pancreas. *Biomedical Research*, 1989, *10*, 431–436.
- Abel, E. L., and Sokol, R. J. Fetal alcohol syndrome is now a leading cause of mental retardation. *Lancet*, 1986, *2*, 1222.
- Abercrombie, H. C., Schaefer, S. M., Larson, C. L., Oakes, T. R., Lindgren, K. A., Holden, J. E., Perlman, S. B., Turski, P. A., Krahn, D. D., Benca, R. M., and Davidson, R. J. Metabolic rate in the right amygdala predicts negative affect in depressed patients. *Neuroreport*, 1998, *9*, 3301–3307.
- Abrahamov, A., Abrahamov, A., and Mechoulam, R. An efficient new cannabinoid antiemetic in pediatric oncology. *Life Sciences*, 1995, *56*, 2097–2102.
- Adams, D. B., Gold, A. R., and Burt, A. D. Rise in female-initiated sexual activity at ovulation and its suppression by oral contraceptives. *New England Journal of Medicine*, 1978, *299*, 1145–1150.
- Adams, R. D., and Victor, M. *Principles of Neurology*. New York: McGraw-Hill, 1981.
- Adey, W. R., Bors, E., and Porter, R. W. EEG sleep patterns after high cervical lesions in man. *Archives of Neurology*, 1968, *19*, 377–383.
- Adieh, H. B., Mayer, A. D., and Rosenblatt, J. S. Effects of brain antiestrogen implants on maternal behavior and on postpartum estrus in pregnant rats. *Neuroendocrinology*, 1987, *46*, 522–531.
- Adler, C. M., Malhotra, A. K., Elman, I., Goldberg, T., Egan, M., Pickar, D., and Breier, A. Comparison of ketamine-induced thought disorder in healthy volunteers and thought disorder in schizophrenia. *American Journal of Psychiatry*, 1999, *156*, 1646–1649.
- Adler, C. M., Malhotra, A. K., Elman, I., Pickar, D., and Breier, A. Amphetamine-induced dopamine release and post-synaptic specific binding in patients with mild tardive dyskinesia. *Neuropsychopharmacology*, 2002, *26*, 295–300.
- Adolphs, R., Damasio, H., Tranel, D., Cooper, G., and Damasio, A. R. A Role for somatosensory cortices in the visual recognition of emotion as revealed by three-dimensional lesion mapping. *Journal of Neuroscience*, 2000, *20*, 2683–2690.
- Adolphs, R., and Tranel, D. Intact recognition of emotional prosody following amygdala damage. *Neuropsychologia*, 1999, *37*, 1285–1292.
- Adolphs, R., Tranel, D., Damasio, H., and Damasio, A. Impaired recognition of emotion in facial expressions following bilateral damage to the human amygdala. *Nature*, 1994, *372*, 669–672.
- Adolphs, R., Tranel, D., Damasio, H., and Damasio, A. Fear and the human amygdala. *Journal of Neuroscience*, 1995, *15*, 5879–5891.
- Advokat, C., and Kutlesic, V. Pharmacotherapy of the eating disorders: A commentary. *Neuroscience and Biobehavioral Reviews*, 1995, *19*, 59–66.
- Aharon, I., Etcoff, N., Ariely, D., Chabris, C. F., O'Connor, E., and Breiter, H. C. Beautiful faces have variable reward value: fMRI and behavioral evidence. *Neuron*, 2001, *32*, 537–551.
- Akhtar, S., Wig, N., Pershad, D., and Varma, S. A phenomenological analysis of symptoms in obsessive compulsive disorder. *British Journal of Psychiatry*, 1975, *127*, 342–348.
- Alain, C., Arnott, S. R., Hevenor, S., Graham, S., and Grady, C. L. "What" and "where" in the human auditory system. *Proceedings of the National Academy of Science USA*, 2001, *98*, 12301–12306.
- Alexander, M. P., Fischer, R. S., and Friedman, R. Lesion localization in apraxic agraphia. *Archives of Neurology*, 1992, *49*, 246–251.
- Allen, L. S., and Gorski, R. A. Sexual orientation and the size of the anterior commissure in the human brain. *Proceedings of the National Academy of Sciences*, 1992, *89*, 7199–7202.
- Allison, D. B., Kaprio, J., Korkeila, M., Koskenvuo, M., Neale, M. C., and Hayakawa, K. The heritability of body mass index among an international sample of monozygotic twins reared apart. *International Journal of Obesity*, 1996, *20*, 501–506.
- Altshuler, H. L., Phillips, P. E., and Feinhandler, D. A. Alterations of ethanol self-administration by naltrexone. *Life Sciences*, 1980, *26*, 679–688.
- Amaral, D. G., Price, J. L., Pitkänen, A., and Carmichael, S. T. Anatomical organization of the primate amygdalid complex. In *The Amygdala: Neurobiological Aspects of Emotion, Memory, and Mental Dysfunction*. New York: Wiley-Liss, 1992.
- Anand, B. K., and Brobeck, J. R. Hypothalamic control of food intake in rats and cats. *Yale Journal of Biology and Medicine*, 1951, *24*, 123–140.
- Ancoli-Israel, S., and Roth, T. Characteristics of insomnia in the United States: Results of the 1991 National Sleep Foundation survey. *Sleep*, 1999, *22*, S347–S353.
- Anderson, A. K., and Phelps, E. A. Expression without recognition: Contributions of the human amygdala to emotional communication. *Psychological Science*, 2000, *11*, 106–111.
- Anderson, C. M., Polcari, A., Lowen, S. B., Renshaw, P. F., and Teicher, M. H. Effects of methylphenidate on functional magnetic resonance relaxometry of the cerebellar vermis in boys with ADHD. *American Journal of Psychiatry*, 2002, *159*, 1322–1328.
- Andreasen, N. C. Symptoms, signs, and diagnosis of schizophrenia. *Lancet*, 1995, *346*, 477–481.
- Andrews, N., Miller, E., Taylor, B., Lingam, R., Simmons, A., Stowe, J., and Waight, P. Recall bias, MMR, and autism. *Archives of Disease in Childhood*, 2002, *87*, 493–494.
- Archer, J. Testosterone and aggression. *Journal of Offender Rehabilitation*, 1994, *5*, 3–25.
- arendt, J., Deacon, S., English, J., Hampton, S., and Morgan, L. Melatonin and adjustment to phase-shift. *Journal of Sleep Research*, 1995, *4*, 74–79.
- Arnason, B. G. Immunologic therapy of multiple sclerosis. *Annual Review of Medicine*, 1999, *50*, 291–302.
- Arnon, B. D., Bell-Pedersen, D., Block, G. D., Bos, N. P. A., Dunlap, J. C., Eskin, A., Garceau, N. Y., Geusz, M. E., Johnson, K. A., Khalsa, S. B. S., Koster-Van Hoffen, G. C., Koumenis, C., Lee, T. M., LeSauter, J., Lindgren, K. M., Liu, Q., Lorus, J. J., Michel, S. H., Mirmiran, M., Moore, R. Y., Ruby, N. F., Silver, R., Turek, F. W., and Zatz, M. Circadian rhythms. *Brain Research Reviews*, 1993, *18*, 315–333.
- Artmann, H., Grau, H., Adelman, M., and Schleifer, R. Reversible and non-reversible enlargement of cerebrospinal fluid spaces in anorexia nervosa. *Neuroradiology*, 1985, *27*, 103–112.
- Aschoff, J. Circadian rhythms: General features and endocrinological aspects. In *Endocrine Rhythms*, edited by D. T. Krieger. New York: Raven Press, 1979.
- Asnis, G. M., Hameedi, F. A., Goddard, A. W., Potkin, S. G., Black, D., Jameel, M., Desagani, K., and Woods, S. W. Fluvoxamine in the treatment of panic disorder: A multi-center, double-blind, placebo-controlled study in outpatients. *Psychiatry Research*, 2001, *103*, 1–14.
- Aston-Jones, G., and Bloom, F. E. Activity of norepinephrine-containing locus coeruleus neurons in behaving rats anticipates fluctuations in the sleep-waking cycle. *Journal of Neuroscience*, 1981a, *1*, 876–886.
- Aston-Jones, G., Rajkowski, J., Kubaki, P., and Alexinsky, T. Locus coeruleus neurons in monkey are selectively activated by attended cues in a vigilance task. *Journal of Neuroscience*, 1994, *14*, 4467–4480.
- Atack, J. R., Broughton, H. B., and Pollack, S. J. Inositol monophosphatase: A putative target for Li⁺ in the treatment of bipolar disorder. *Trends in Neurosciences*, 1995, *18*, 343–349.
- Attia, E., Haiman, C., Walsh, T., and Flater, S. T. Does fluoxetine augment the inpatient treatment of anorexia nervosa? *American Journal of Psychiatry*, 1998, *155*, 548–551.
- Auer, R. N., Jensen, M. L., and Whishaw, I. Q. Neurobehavioral deficit due to ischemic brain damage limited to half of the CA1 section of the hippocampus. *Journal of Neuroscience*, 1989, *9*, 1641–1647.
- Avenet, P., and Lindemann, B. Perspectives of taste reception. *Journal of Membrane Biology*, 1989, *112*, 1–8.
- Avila, M. T., Weiler, M. A., Lahti, A. C., Tamminga, C. A., and Thaker, G. K. Effects of ketamine on leading saccades during smooth-pursuit eye movements may implicate cerebellar dysfunction in schizophrenia. *American Journal of Psychiatry*, 2002, *159*, 1490–1496.
- Baddeley, A. D. Memory: Verbal and visual subsystems of working memory. *Current Biology*, 1993, *3*, 563–565.
- Bagatell, C. J., Heiman, J. R., Rivier, J. E., and Bremner, W. J. Effects of endogenous testosterone and estradiol on sexual behavior in

- normal young men. *Journal of Clinical Endocrinology and Metabolism*, 1994, 7, 211–216.
- Bai, F. L., Yamano, M., Shiotani, Y., Emson, P. C., Smith, A. D., Powell, J. F., and Tohyama, M. An arcuate-paraventricular and dorsomedial hypothalamic neuropeptide Y-containing system which lacks noradrenaline in the rat. *Brain Research*, 1985, 331, 172–175.
- Bailey, A. The biology of autism. *Psychological Medicine*, 1993, 23, 7–11.
- Bailey, A., Le Couteur, A., Gottesman, I., Bolton, P., Simonoff, E., Yuzda, E., and Rutter, M. Autism as a strongly genetic disorder: Evidence from a British twin study. *Psychological Medicine*, 1995, 25, 63–77.
- Bailey, A., Luthert, P., Dean, A., Harding, B., Janota, I., Montgomery, M., Rutter, M., and Lantos, P. A clinicopathological study of autism. *Brain*, 1998, 121, 889–905.
- Bailey, J. M., and Pillard, R. C. A genetic study of male sexual orientation. *Archives of General Psychiatry*, 1991, 48, 1089–1096.
- Bailey, J. M., Pillard, R. C., Neale, M. C., and Agyei, Y. Heritable factors influence sexual orientation in women. *Archives of General Psychiatry*, 1993, 50, 217–223.
- Baizer, J. S., Ungerleider, L. G., and Desimone, R. Organization of visual inputs to the inferior temporal and posterior parietal cortex in macaques. *Journal of Neuroscience*, 1991, 11, 168–190.
- Bak, T. H., O'Donovan, D. G., Xuereb, J. H., Boniface, S., and Hodges, J. R. Selective impairment of verb processing associated with pathological changes in Brodmann areas 44 and 45 in the motor neurone disease-dementia-aphasia syndrome. *Brain*, 2001, 124, 103–120.
- Baker, D. G., West, S. A., Nicholson, W. E., Ekhator, N. N., Kasckow, J. W., Hill, K. K., Bruce, A. B., Orth, D. N., and Geraciotti, T. D. Serial CSF corticotropin-releasing hormone levels and adrenocortical activity in combat veterans with posttraumatic stress disorder. *American Journal of Psychiatry*, 1999, 156, 585–588.
- Baldessarini, R. J. *Chemotherapy in Psychiatry*. Cambridge, Mass.: Harvard University Press, 1977.
- Ballantine, H. T., Bouckoms, A. J., Thomas, E. K., and Giriunas, I. E. Treatment of psychiatric illness by stereotactic cingulotomy. *Biological Psychiatry*, 1987, 22, 807–819.
- Banks, W. A., Kastin, A. J., Huang, W. T., Jaspan, J. B., and Maness, L. M. Leptin enters the brain by a saturable system independent of insulin. *Peptides*, 1996, 17, 305–311.
- Barbazanges, A., Piazza, P. V., Le Moal, M., and Maccari, S. Maternal glucocorticoid secretion mediates long-term effects of prenatal stress. *Journal of Neuroscience*, 1996, 16, 3943–3949.
- Barber, T. X. Responding to "hypnotic" suggestions: An introspective report. *American Journal of Clinical Hypnosis*, 1975, 18, 6–22.
- Barclay, C. D., Cutting, J. E., and Kozlowski, L. T. Temporal and spatial factors in gait perception that influence gender recognition. *Perception and Psychophysics*, 1978, 23, 145–152.
- Bard, F., Cannon, C., Barbour, R., Burke, R. L., Games, D., Grajeda, H., Guido, T., Hu, K., Huang, J., Johnson-Wood, K., Khan, K., Khodenko, D., Lee, M., Lieberburg, I., Motter, R., Nguyen, M., Soriano, F., Vasquez, N., Weiss, K., Welch, B., Seubert, P., Schenk, D., and Yednock, T. Peripherally administered antibodies against amyloid beta-peptide enter the central nervous system and reduce pathology in a mouse model of Alzheimer disease. *Nature Medicine*, 2000, 6, 916–919.
- Bartness, T. J., Powers, J. B., Hastings, M. H., Bittman, E. L., and Goldman, B. D. The timed infusion paradigm for melatonin delivery: What has it taught us about the melatonin signal, its reception, and the photoperiodic control of seasonal responses? *Journal of Pineal Research*, 1993, 15, 161–190.
- Batterham, R. L., and Bloom, S. R. The gut hormone peptide YY regulates appetite. *Annals of the New York Academy of Science*, 2003, 995, 162–168.
- Batterham, R. L., Cowley, M. A., Small, C. J., Herzog, H., Cohen, M. A., Dakin, C. L., Wren, A. M., Brynes, A. E., Low, M. J., Ghatei, M. A., Cone, R. D., and Bloom, S. R. Gut hormone PYY_{3–36} physiologically inhibits food intake. *Nature*, 2002, 418, 650–654.
- Baylis, G. C., Rolls, E. T., and Leonard, C. M. Selectivity between faces in the responses of a population of neurons in the cortex in the superior temporal sulcus of the monkey. *Brain Research*, 1985, 342, 91–102.
- Bean, N. J. Modulation of agonistic behavior by the dual olfactory system in male mice. *Physiology and Behavior*, 1982, 29, 433–437.
- Bean, N. J., and Conner, R. Central hormonal replacement and home-cage dominance in castrated rats. *Hormones and Behavior*, 1978, 11, 100–109.
- Bear, O., and Fedio, P. Qualitative analysis of interictal behavior in temporal lobe epilepsy. *Archives of Neurology*, 1977, 34, 454–467.
- Beauvois, M. F., and Dérouesné, J. Lexical or orthographic dysgraphia. *Brain*, 1981, 104, 21–45.
- Beauvois, M. F., and Dérouesné, J. Phonological alexia: Three dissociations. *Journal of Neurology, Neurosurgery and Psychiatry*, 1979, 42, 1115–1124.
- Bechara, A., Damasio, H., Tranel, D., and Anderson, S. W. Dissociation of working memory from decision making within the human prefrontal cortex. *Journal of Neuroscience*, 1998, 18, 428–437.
- Bechara, A., Tranel, D., Damasio, H., Adolphs, R., Rockland, C., and Damasio, A. R. Double dissociation of conditioning and declarative knowledge relative to the amygdala and hippocampus in humans. *Science*, 1995, 269, 1115–1118.
- Beckstead, R. M., Morse, J. R., and Norgren, R. The nucleus of the solitary tract in the monkey: Projections to the thalamus and brainstem nuclei. *Journal of Comparative Neurology*, 1980, 190, 259–282.
- Beeman, E. A. The effect of male hormone on aggressive behavior in mice. *Physiological Zoology*, 1947, 20, 373–405.
- Beidler, L. M. Physiological properties of mammalian taste receptors. In *Taste and Smell in Vertebrates*, edited by G. E. W. Wolstenholme. London: J. & A. Churchill, 1970.
- Belin, P., Zatorre, R. J., Lafaille, P., Ahad, P., and Pike, B. Voice-selective areas in human auditory cortex. *Nature*, 2000, 403, 309–312.
- Bell, A. P., Weinberg, M. S., and Hammersmith, S. K. *Sexual Preference: Its Development in Men and Women*. Bloomington: Indiana University Press, 1981.
- Benington, J. H., Kodali, S. K., and Heller, H. C. Monoaminergic and cholinergic modulation of REM-sleep timing in rats. *Brain Research*, 1995, 681, 141–146.
- Berman, G., and Davidson, J. M. *Biological Bases of Sexual Behavior*. New York: Harper & Row, 1974.
- Bernhardt, P. C., Dabbs, J. M., Fielden, J. A., and Lutter, C. D. Testosterone changes during vicarious experiences of winning and losing among fans at sporting events. *Physiology and Behavior*, 1998, 65, 59–62.
- Berson, D. M., Dunn, F. A., and Takao, M. Phototransduction by retinal ganglion cells that set the circadian clock. *Science*, 2002, 295, 1070–1073.
- Berthier, M., Kulisevsky, J., Gironell, A., and Heras, J. A. Obsessive-compulsive disorder associated with brain lesions: Clinical phenomenology, cognitive function, and anatomic correlates. *Neurology*, 1996, 47, 353–361.
- Best, P. J., White, A. M., and Minai, A. Spatial processing in the brain: The activity of hippocampal place cells. *Annual Review of Neuroscience*, 2001, 24, 459–486.
- Bettelheim, B. *The Empty Fortress*. New York: Free Press, 1967.
- Bier, M. J., and McCarley, R. W. REM-enhancing effects of the adrenergic antagonist idazoxan infused into the medial pontine reticular formation of the freely moving cat. *Brain Research*, 1994, 634, 333–338.
- Bierut, L. J., Dinwiddie, S. H., Beglitter, H., Crowe, R. R., Hesselbrock, V., Nurnberger, J. I., Porjexz, B., Schukit, M. A., and Reich, T. Familial transmission of substance dependence: Alcohol, Marijuana, cocaine, and habitual smoking. *Archives of General Psychiatry*, 1998, 55, 982–988.
- Bigiani, A., Delay, R. J., Chaudhair, N., Kinna, S. C., and Roper, S. D. Responses to glutamate in rat taste cells. *Journal of Neurophysiology*, 1997, 77, 3048–3059.
- Birch, L. L., McPhee, L., Shoba, B. C., Steinberg, L., and Krehbiel, R. "Clean up your plate": Effects of child feeding practices on the conditioning of meal size. *Learning and Motivation*, 1987, 18, 301–317.
- Bird, E., Cardone, C. C., and Contreras, R. J. Area postrema lesions disrupt food intake induced by cerebroventricular infusions of 5-thioglucose in the rat. *Brain Research*, 1983, 270, 193–196.
- Bisiach, E., and Luzzatti, C. Unilateral neglect of representational space. *Cortex*, 1978, 14, 129–133.
- Blaustein, J. D., and Feder, H. H. Cytoplasmic progestin receptors in guinea pig brain: Characteristics and relationship to the induction of sexual behavior. *Brain Research*, 1979, 169, 481–497.
- Blest, A. D. The function of eyespot patterns in insects. *Behaviour*, 1957, 11, 209–256.
- Bleuler, E. *Dementia Praecox or the Group of Schizophrenia*, 1911. Translated by J. Zinkin. New York: International Universities Press, 1911/1950.
- Bliss, T. V. P., and Lømo, T. Long-lasting potentiation of synaptic transmission in the dentate area of the anaesthetized rabbit following stimulation of the perforant path. *Journal of Physiology (London)*, 1973, 232, 331–356.
- Bloch, V., Hennevin, E., and Leconte, P. Interaction between post-trial reticular stimulation and subsequent paradoxical sleep in memory consolidation processes. In *Neurobi-*

- ology of Sleep and Memory, edited by R. R. Drucker-Colin and J. L. McGaugh. New York: Academic Press, 1977.
- Blonder, L. X., Bowers, D., and Heilman, K. M. The role of the right hemisphere in emotional communication. *Brain*, 1991, 114, 1115–1127.
- Blundell, J. E., and Halford, J. C. G. Serotonin and appetite regulation: Implications for the pharmacological treatment of obesity. *CNS Drugs*, 1998, 9, 473–495.
- Boatman, D., Gordon, B., Hart, J., Selnes, O., Miglioretti, D., and Lenz, F. Transcortical sensory aphasia: Revisited and revised. *Brain*, 2000, 123, 1634–1642.
- Bodner, S. M., Morshed, S. A., and Peterson, B. S. The question of PANDAS in adults. *Biological Psychiatry*, 2001, 49, 807–810.
- Boeve, B. F., Silber, M. H., Ferman, T. J., Lucas, J. A., and Parisi, J. E. Association of REM sleep behavior disorder and neurodegenerative disease may reflect an underlying synucleinopathy. *Movement Disorders*, 2001, 16, 622–630.
- Bon, C., Böhme, G. A., Doble, A., Stutzmann, J.-M., and Blanchard, J.-C. A role for nitric oxide in long-term potentiation. *European Journal of Neuroscience*, 1992, 4, 420–424.
- Born, R. T., and Tootell, R. B. H. Spatial frequency tuning of single units in macaque supragranular striate cortex. *Proceedings of the National Academy of Sciences*, 1991, 88, 7066–7070.
- Bornstein, B., Stroka, H., and Munitz, H. Prosopagnosia with animal face agnosia. *Cortex*, 1969, 5, 164–169.
- Borod, J. C., Koff, E., Yecker, S., Santschi, C., and Schmidt, J. M. Facial asymmetry during emotional expression: Gender, falence, and measurement technique. *Neuropsychologia*, 1998, 36, 1209–1215.
- Boulos, Z., Campbell, S. S., Lewy, A. J., Terman, M., Dijk, D. J., and Eastman, C. I. Light treatment for sleep disorders: Consensus report. 7: Jet-lag. *Journal of Biological Rhythms*, 1995, 10, 167–176.
- Bouwknecht, J. A., Hijzen, T. H., van der Gugten, J., Maes, R. A. A., Hen, R., and Olivier, B. Absence of 5-HT_{1B} receptors is associated with impaired impulse control in Male 5-HT_{1B} knockout mice. *Biological Psychiatry*, 2001, 49, 557–568.
- Bowers, D., and Heilman, K. M. A dissociation between the processing of affective and nonaffective faces. Paper presented at the meeting of the International Neuropsychological Society, Atlanta, 1981.
- Bowersox, S. S., Kaitin, K. I., and Dement, W. C. EEG spindle activity as a function of age: Relationship to sleep continuity. *Brain Research*, 1985, 63, 526–539.
- Boynton, R. M. *Human Color Vision*. New York: Holt, Rinehart and Winston, 1979.
- Bozarth, M. A., and Wise, R. A. Toxicity associated with long-term intravenous heroin and cocaine self-administration in the rat. *Journal of the American Medical Association*, 1985, 254, 81–83.
- Bradbury, M. W. B. *The Concept of a Blood-Brain Barrier*. New York: John Wiley & Sons, 1979.
- Bradley, D. C., Maxwell, M., Andersen, R. A., Banks, M. S., and Shenoy, K. V. Mechanisms of heading perception in primate visual cortex. *Science*, 1996, 273, 1544–1547.
- Bradley, S. J., Oliver, G. D., Chernick, A. B., and Zucker, K. H. Experiment of nurture: Ablatio penis at 2 months, sex reassignment at 7 months, and a psychosexual follow-up in young adulthood. *Pediatrics*, 1998, 102, E91–E95.
- Braun, S. New experiments underscore warnings on maternal drinking. *Science*, 1996, 273, 738–739.
- Brecher, E. M. *Licit and Illicit Drugs*. Boston: Little, Brown & Co., 1972.
- Breedlove, S. M. Sexual differentiation of the brain and behavior. In *Behavioral Endocrinology*, edited by J. B. Becker, S. M. Breedlove, and D. Crews. Cambridge, Mass.: MIT Press, 1992.
- Breedlove, S. M. Sexual differentiation of the human nervous system. *Annual Review of Psychology*, 1994, 45, 389–418.
- Breier, A., Su, T.-P., Saunders, R., Carson, R. E., Kolachana, B. S., de Bartolomeis, A., Weinberger, D. R., Weisenfeld, N., Malhotra, A. K., Eckelman, W. C., and Pickar, D. Schizophrenia is associated with elevated amphetamine-induced synaptic dopamine concentrations: evidence from a novel positron emission tomography method. *Proceedings of the National Academy of Science, USA*, 1997, 94, 2569–2574.
- Breisch, S. T., Zemlan, F. P., and Hoebel, B. G. Hyperphagia and obesity following serotonin depletion by intraventricular p-chlorophenylalanine. *Science*, 1976, 192, 382–384.
- Bremner, J. D. Does stress damage the brain? *Biological Psychiatry*, 1999, 45, 797–805.
- Bremner, J. D., Innis, R. B., Salomon, R. M., Staib, L. H., Ng, C. K., Miller, H. L., Bronen, R. A., Krystal, J. H., Duncan, J., Rich, D., Price, L. H., Malison, R., Dey, H., Soufer, R., and Charney, D. S. Positron emission tomography measurement of cerebral metabolic correlates of tryptophan depletion-induced depressive relapse. *Archives of General Psychiatry*, 1997, 54, 364–374.
- Bremner, J. D., Randall, P., Scott, T. M., Bronen, R. A., Seibly, J. P., Southwick, S. M., Delaney, R. C., McCarthy, G., Charney, D. S., and Innis, R. B. MRI-based measurement of hippocampal volume in patients with combat-related posttraumatic stress disorder. *American Journal of Psychiatry*, 1995, 152, 973–981.
- Bridges, R. S. A quantitative analysis of the roles of dosage, sequence and duration of estradiol and progesterone exposure in the regulation of maternal behavior in the rat. *Endocrinology*, 1984, 114, 930–940.
- Bridges, R. S., Numan, M., Ronsheim, P. M., Mann, P. E., and Lupini, C. E. Central prolactin infusions stimulate maternal behavior in steroid-treated, nulliparous female rats. *Proceedings of the National Academy of Sciences, USA*, 1990, 87, 8003–8007.
- Britten, K. H., and van Wezel, R. J. Electrical microstimulation of cortical area MST biases heading perception in monkeys. *Nature Neuroscience*, 1998, 1, 59–63.
- Britton, D. R., Koob, G. F., Rivier, J., and Vale, W. Intraventricular corticotropin-releasing factor enhances behavioral effects of novelty. *Life Sciences*, 1982, 31, 363–367.
- Broberg, D. J., and Bernstein, I. L. Cephalic insulin release in anorexic women. *Physiology and Behavior*, 1989, 45, 871–874.
- Broberger, C., de Lecea, L., Sutcliffe, J. G., and Hökfelt, T. Hypocretin/orexin- and melanin concentrating hormone-expressing cells form distinct populations in the rodent lateral hypothalamus: Relationship to the neuropeptide Y and agouti gene-related protein systems. *Journal of Comparative Neurology*, 1998, 402, 460–474.
- Broca, P. Remarques sur le siège de la faculté du langage articulé, suivies d'une observation d'aphémie (perle de la parole). *Bulletin de la Société Anatomique (Paris)*, 1861, 36, 330–357.
- Brown, R. E., Stevens, D. R., and Haas, H. L. The physiology of brain histamine. *Progress in Neurobiology*, 2001, 63, 637–672.
- Brownell, W. E., Bader, C. R., Bertrand, D., and de-Ribaupierre, Y. Evoked mechanical responses of isolated cochlear outer hair cells. *Science*, 1985, 227, 194–196.
- Bruce, H. M. A block to pregnancy in the mouse caused by proximity of strange males. *Journal of Reproduction and Fertility*, 1960a, 1, 96–103.
- Bruce, H. M. Further observations of pregnancy block in mice caused by proximity of strange males. *Journal of Reproduction and Fertility*, 1960b, 2, 311–312.
- Brüning, J. C., Gautam, D., Burks, D. J., Gillette, J., Schubert, M., Orban, P. C., Klein, R., Krone, W., Müller-Wieland, D., and Kahn, C. R. Role of brain insulin receptor in control of body weight and reproduction. *Science*, 2000, 289, 2122–2125.
- Bryden, M. P., and Ley, R. G. Right-hemispheric involvement in the perception and expression of emotion in normal humans. In *Neuropsychology of Human Emotion*, edited by K. M. Heilman and P. Satz. New York: Guilford Press, 1983.
- Buchs, P. A., and Müller, D. Induction of long-term potentiation is associated with major ultrastructural changes of activated synapses. *Proceedings of the National Academy of Sciences of the United States of America*, 1996, 93, 8040–8045.
- Buchsbaum, M. S., Gillin, J. C., Wu, J., Hazlett, E., Sicotte, N., Dupont, R. M., and Bunney, W. E. Regional cerebral glucose metabolic rate in human sleep assessed by positron emission tomography. *Life Sciences*, 1989, 45, 1349–1356.
- Buck, L. B. Information coding in the vertebrate olfactory system. *Annual Review of Neuroscience*, 1996, 19, 517–544.
- Buck, L., and Axel, R. A novel multigene family may encode odorant receptors: A molecular basis for odor recognition. *Cell*, 1991, 65, 175–187.
- Bueler, H., Aguzzi, A., Sailer, A., Grenier, R. A., Autenreid, P., Aguet, M., and Weissmann, C. Mice devoid of PrP are resistant to scrapie. *Cell*, 1993, 73, 1339–1347.
- Buggy, J., Hoffman, W. E., Phillips, M. I., Fisher, A. E., and Johnson, A. K. Osmosensitivity of rat third ventricle and interactions with angiotensin. *American Journal of Physiology*, 1979, 236, R75–R82.
- Bunyard, L. B., Katzel, L. I., Busby-Whitehead, M. J., Wu, Z., and Goldberg, A. P. Energy requirements of middle-aged men are modifiable by physical activity. *American Journal of Clinical Nutrition*, 1998, 68, 1136–1142.
- Burnstock, G., and Wood, J. N. Purinergic receptors: Their role in nociception and primary afferent neurotransmission. *Current Opinion in Neurobiology*, 1996, 6, 526–532.
- Burton, M. J., Rolls, E. T., and Mora, F. Effects of hunger on the responses of neurons in the lateral hypothalamus to the sight and taste of food. *Experimental Neurology*, 1976, 51, 668–677.
- Buxbaum, L. J., Glosser, G., and Coslett, H. B. Impaired face and word recognition

- without object agnosia. *Neuropsychologia*, 1999, 37, 41–50.
- Byne, W., Tobet, S., Mattiace, L. A., Lasco, M. S., Kemether, E., Edgar, M. A., Morgello, S., Buchsbaum, M. S., and Jones, L. B. The interstitial nucleus of the human anterior hypothalamus: An investigation of variation with sex, sexual orientation, and HIV status. *Hormones and Behavior*, 2001, 40, 86–92.
- Cador, M., Robbins, T. W., and Everitt, B. J. Involvement of the amygdala in stimulus-reward associations: Interaction with the ventral striatum. *Neuroscience*, 1989, 30, 77–86.
- Cahill, L., Haier, R. J., Fallon, J., Alkire, M. T., Tang, C., Keator, D., Wu, J., and McGaugh, J. L. Amygdala activity at encoding correlated with long-term, free recall of emotional information. *Proceedings of the National Academy of Sciences of the United States of America*, 1996, 93, 8016–8021.
- Cain, W. S. Olfaction. In Stevens' *Handbook of Experimental Psychology. Vol. 1: Perception and Motivation*, edited by R. C. Atkinson, R. J. Herrnstein, G. Lindzey, and R. D. Luce. New York: John Wiley & Sons, 1988.
- Calder, A. J., Young, A. W., Rowland, D., Perrett, D. I., Hedges, J. R., and Etcoff, N. L. Facial emotion recognition after bilateral amygdala damage: Differentially severe impairment of fear. *Cognitive Neuropsychology*, 1996, 13, 699–745.
- Cameron, H. A., and McKay, R. D. G. Adult neurogenesis produces a large pool of new granule cells in the dentate gyrus. *Journal of Comparative Neurology*, 2001, 435, 406–417.
- Campeau, S., Hayward, M. D., Hope, B. T., Rosen, J. B., Nestler, E. J., and Davis, M. Induction of the c-fos proto-oncogene in rat amygdala during unconditioned and conditioned fear. *Brain Research*, 1991, 565, 349–352.
- Campeau, S., Miserendino, M. J. D., and Davis, M. Intra-amygdala infusion of the N-methyl-D-aspartate receptor antagonist AP5 blocks acquisition but not expression of fear-potentiated startle to an auditory conditioned stimulus. *Behavioral Neuroscience*, 1992, 106, 569–574.
- Campfield, L. A., Smith, F. J., Guisez, Y., Devos, R., and Burn, P. Recombinant mouse ob protein: Evidence for a peripheral signal linking adiposity and central neural networks. *Science*, 1995, 269, 546–549.
- Cannon, M., Jones, P. B., and Murray, R. M. Obstetric complications and schizophrenia: Historical and meta-analytic review. *American Journal of Psychiatry*, 2002, 159, 1080–1092.
- Cannon, M., Jones, P., Gilvarry, C., Rifkin, L., McKenzie, K., Foerster, A., and Murray, R. M. Premorbid social functioning in schizophrenia and bipolar disorder: Similarities and differences. *American Journal of Psychiatry*, 1997, 154, 1544–1550.
- Cannon, W. B. The James-Lange theory of emotions: A critical examination and an alternative. *American Journal of Psychology*, 1927, 39, 106–124.
- Card, J. P., Riley, J. N., and Moore, R. Y. The suprachiasmatic hypothalamic nucleus: Ultrastructure of relations to optic chiasm. *Neuroscience Abstracts*, 1980, 6, 758.
- Carew, T. J. Development assembly of learning in Aplysia. *Trends in Neuroscience*, 1989, 12, 389–394.
- Caro, J. F., Kolaczynski, J. W., Nyce, M. R., Ohannesian, J. P., Opentanova, I., Goldman, W. H., Lynn, R. B., Zhang, P. L., Sinha, M. K., and Considine, R. V. Decreased cerebrospinal fluid/serum leptin ratio in obesity: A possible mechanism for leptin resistance. *Lancet*, 1996, 348, 159–161.
- Carpenter, C. R. Sexual behavior of free ranging rhesus monkeys (*Macaca mulatta*). I. Specimens, procedures and behavioral characteristics of estrus. *Journal of Comparative Psychology*, 1942, 33, 113–142.
- Carr, D. B., and Sesack, S. R. Projections from the rat prefrontal cortex to the ventral tegmental area: Target specificity in the synaptic associations with mesoaccumbens and mesocortical neurons. *Journal of Neuroscience*, 2000, 20, 3864–3873.
- Carrera, M. R., Ashley, J. A., Parsons, L. H., Wirsching, P., Koob, G. F., and Janda, K. D. Suppression of psychoactive effects of cocaine by active immunization. *Nature*, 1995, 378, 727–730.
- Carroll, R. C., Lissin, D. V., von Zastrow, M., Niclou, R. A., and Malenka, R. C. Rapid redistribution of glutamate receptors contributes to long-term depression in hippocampal cultures. *Nature Neuroscience*, 1999, 2, 454–460.
- Carter, C. S. Hormonal influences on human sexual behavior. In *Behavioral Endocrinology*, edited by J. B. Becker, S. M. Breedlove, and D. Crews. Cambridge, Mass.: MIT Press, 1992.
- Castellanos, F. X., Lee, P. P., Sharp, W., Jefries, N. O., Greenstein, D. K., Clasen, L. S., Blumenthal, J. D., James, R. S., Ebens, C. L., Walter, J. M., Zijdenbos, A., Evans, A. C., Giedd, J. N., Rappoport, J. L. Developmental trajectories of brain volume abnormalities in children and adolescents with attention-deficit/hyperactivity disorder. *Journal of the American Medical Association*, 2002, 288, 1740–1748.
- Castles, A., and Coltheart, M. Varieties of developmental dyslexia. *Cognition*, 1993, 47, 149–180.
- Caterina, M. J., Leffler, A., Malmberg, A. B., Martin, W. J., Trafton, J., Petersen-Zeitz, K. R., Koltzenburg, M., Basbaum, A. I., and Julius, D. Impaired nociception and pain sensation in mice lacking the capsaicin receptor. *Science*, 2000, 288, 306–313.
- Cenci, M. A., Kalen, P., Mandel, R. J., and Björklund, A. Regional differences in the regulation of dopamine and noradrenaline release in medial frontal cortex, nucleus accumbens and caudate-putamen: A microdialysis study in the rat. *Brain Research*, 1992, 581, 217–228.
- Chaudhari, N., Yang, H., Lamp, C., Delay, E., Cartford, C., Than, T., and Roper, S. The taste of monosodium glutamate: Membrane receptors in taste buds. *Journal of Neuroscience*, 1996, 16, 3817–3826.
- Chemelli, R. M., Willie, J. T., Sinton, C. M., Elmquist, J. K., Scammell, T., Lee, C., Richardson, J. A., Williams, S. C., Xiong, Y., Kisanuki, Y., Fitch, T. E., Nakazato, M., Hammer, R. E., Saper, C. B., and Yanagisawa, M. Narcolepsy in orexin knockout mice: molecular genetics of sleep regulation. *Cell*, 1999, 98, 437–451.
- Chen, J., Paredes, W., Li, J., Smith, D., Lowinson, J., and Gardner, E. L. Delta⁹-tetrahydrocannabinol produces naloxone-blockable enhancement of presynaptic basal dopamine efflux in nucleus accumbens of conscious, freely-moving rats as measured by intracerebral microdialysis. *Psychopharmacology*, 1990, 102, 156–162.
- Chen, Y. W., and Dilsaver, S. C. Lifetime rates of suicide attempts among subjects with bipolar and unipolar disorders relative to subjects with other axis I disorders. *Biological Psychiatry*, 1996, 39, 896–899.
- Chou, T. C., Bjorkum, A. A., Gaus, S. E., Lu, J., Scammell, T. E., and Saper, C. B. Afferents to the ventrolateral preoptic nucleus. *Journal of Neuroscience*, 2002, 22, 977–990.
- Clapham, J. C., Arch, J. R., Chapman, H., Haynes, A., Lister, C., Moore, G. B., Piercy, V., Carter, S. A., Lehner, I., Smith, S. A., Beeley, L. J., Godden, R. J., Herrity, N., Skehel, M., Changani, K. K., Hockings, P. D., Reid, D. G., Squires, S. M., Hatcher, J., Trail, B., Latcham, J., Rastan, S., Harper, A. J., Cadenas, S., Buckingham, J. A., Brand, M. D., Abuin, A. Mice overexpressing human uncoupling protein-3 in skeletal muscle are hyperphagic and lean. *Nature*, 2000, 406, 415–418.
- Clark, J. T., Kalra, P. S., Crowley, W. R., and Kalra, S. P. Neuropeptide Y and human pancreatic polypeptide stimulates feeding behavior in rats. *Endocrinology*, 1984, 115, 427–429.
- Clément, K., Vaisse, C., Lahlou, N., Cabrol, S., Pelloux, V., Cassuto, D., Gourmelen, M., Dina, C., Chambaz, J., Lacorte, J. M., Basdevant, A., Bougnères, P., Lebouc, Y., Froguel, P., Guy-Grand, B. A mutation in the human leptin receptor gene causes obesity and pituitary dysfunction. *Nature*, 1998, 392, 398–401.
- Cloninger, C. R. Neurogenetic adaptive mechanisms in alcoholism. *Science*, 1987, 236, 410–416.
- Cloninger, C. R., Bohman, M., and Sigvardsson, S. Inheritance of alcohol abuse: Cross-fostering analysis of adopted men. *Archives of General Psychiatry*, 1981, 38, 861–868.
- Cloninger, C. R., Bohman, M., Sigvardsson, S., and von Knorring, A.-L. Psychopathology in adopted-out children of alcoholics: The Stockholm Adoption Study. *Recent Developments in Alcoholism*, 1985, 3, 37–51.
- Cobb, S., and Rose, R. M. Hypertension, peptic ulcer, and diabetes in air traffic controllers. *Journal of the American Medical Association*, 1973, 224, 489–492.
- Coble, P. A., Scher, M. S., Reynolds, C. F., Day, N. L., and Kupfer, D. J. Preliminary findings on the neonatal sleep of offspring of women with and without a prior history of affective disorder. *Sleep Research*, 1988, 16, 120.
- Coccaro, E. F., and Kavoussi, R. J. Fluoxetine and impulsive aggressive behavior in personality-disordered subjects. *Archives of General Psychiatry*, 1997, 54, 1081–1088.
- Coccaro, E. F., Silverman, J. M., Klar, H. M., Horvath, T. B., and Siever, L. J. Familial correlates of reduced central serotonergic system function in patients with personality disorders. *Archives of General Psychiatry*, 1994, 51, 318–324.
- Cohen, E. A. *Human Behavior in the Concentration Camp*. New York: W. W. Norton, 1953.
- Cohen, S., Tyrrell, D. A. J., and Smith, A. P. Psychological stress and susceptibility to the common cold. *New England Journal of Medicine*, 1991, 325, 606–612.
- Colapinto, J. *As Nature Made Him: The Boy Who Was Raised as a Girl*. New York: Harper-Collins, 2000.

- Cole, B. J., and Koob, G. F. Propranolol antagonizes the enhanced conditioned fear produced by corticotropin releasing factor. *Journal of Pharmacology and Experimental Therapeutics*, 1988, 247, 901–910.
- Collaborative Research Group. A novel gene containing a trinucleotide repeat that is expanded and unstable on Huntington's disease chromosomes. *Cell*, 1993, 72, 971–983.
- Comuzzie, A. G., and Allison, D. B. The search for human obesity genes. *Science*, 1998, 280, 1374–1377.
- Coolen, L. M., and Wood, R. I. Testosterone stimulation of the medial preoptic area and medial amygdala in the control of male hamster sexual behavior: Redundancy without amplification. *Behavioural Brain Research*, 1999, 98, 143–153.
- Cover, G. D., Murison, R., and Jellestad, F. K. Subtotal lesions of the amygdala: The rostral central nucleus in passive avoidance and ulceration. *Physiology and Behavior*, 1992, 51, 795–803.
- Corkin, S., Amaral, D. G., González, R. G., Johnson, K. A., and Hyman, B. R. H. M.'s medial temporal lobe lesion: Findings from magnetic resonance imaging. *Journal of Neuroscience*, 1997, 17, 3964–3979.
- Corkin, S., Sullivan, E. V., Twitchell, T. E., and Grove, E. The amnesic patient H. M.: Clinical observations and test performance 28 years after operation. *Society for Neuroscience Abstracts*, 1981, 7, 235.
- Cottingham, S. L., and Pfaff, D. Interconnectedness of steroid hormone-binding neurons: Existence and implications. *Current Topics in Neuroendocrinology*, 1986, 7, 223–249.
- Courchesne, E., Karns, C. M., Davis, H. R., Ziccardi, R., Carper, R. A., Tigue, Z. D., Chisum, H. J., Moses, P., Pierce, K., Lord, C., Lincoln, A. J., Pizzo, S., Schreibman, L., Hass, R. H., Akshoomoff, N. A., and Courchesne, R. Y. Unusual brain growth patterns in early life in patients with autistic disorder: an MRI study. *Neurology*, 2001, 57, 245–254.
- Covington, H. E., and Miczek, K. A. Repeated social-defeat stress, cocaine or morphine: Effects on behavioral sensitization and intravenous cocaine self-administration "binges." *Psychopharmacology*, 2001, 158, 388–398.
- Cox, A., Rutter, M., Newman, S., and Bartak, L. A comparative study of infantile autism and specific developmental language disorders. I. Parental characteristics. *British Journal of Psychiatry*, 1975, 126, 146–159.
- Crane, G. E. Iproniazid (Marsilid) phosphate, a therapeutic agent for mental disorders and debilitating diseases. *Psychiatry Research Reports*, 1957, 8, 142–152.
- Creese, I., Burt, D. R., and Snyder, S. H. Dopamine receptor binding predicts clinical and pharmacological potencies of anti-schizophrenic drugs. *Science*, 1976, 192, 481–483.
- Crick, F., and Mitchison, G. The function of dream sleep. *Nature*, 1983, 304, 111–114.
- Crick, F., and Mitchison, G. REM sleep and neural nets. *Behavioural Brain Research*, 1995, 69, 147–155.
- Crow, T. J. A map of the rat mesencephalon for electrical self-stimulation. *Brain Research*, 1972, 36, 265–273.
- Crow, T. J. Positive and negative schizophrenic symptoms and the role of dopamine. *British Journal of Psychiatry*, 1980, 137, 383–386.
- Cubelli, R. A selective deficit for writing vowels in acquired dysgraphia. *Nature*, 1991, 353, 258–260.
- Culotta, E., and Koshland, D. E. NO news is good news. *Science*, 1992, 258, 1862–1865.
- Cummings, D. E., Purnell, J. Q., Frayo, R. S., Schmidova, K., Wisse, B. E., and Weigle, D. S. A preprandial rise in plasma ghrelin levels suggests a role in meal initiation in humans. *Diabetes*, 2001, 50, 1714–1719.
- Currie, P. J., and Coscina, D. V. Regional hypothalamic differences in neuropeptide Y-induced feeding and energy substrate utilization. *Brain Research*, 1996, 737, 238–242.
- Dabbs, J. M., Frady, R. L., Carr, T. S., and Besch, N. F. Saliva testosterone and criminal violence in young adult prison inmates. *Psychosomatic Medicine*, 1987, 49, 174–182.
- Dabbs, J. M., and Morris, R. Testosterone, social class, and antisocial behavior in a sample of 4,462 men. *Psychological Science*, 1990, 1, 209–211.
- Dabbs, J. M., Ruback, J. M., Frady, R. L., and Hopper, C. H. Saliva testosterone and criminal violence among women. *Personality and Individual Differences*, 1988, 9, 269–275.
- Dallos, P. The active cochlea. *Journal of Neuroscience*, 1992, 12, 4575–4585.
- Damasio, A. R., Brandt, J. P., Tranel, D., and Damasio, H. Name dropping: Retrieval of proper or common nouns depends on different systems in left temporal cortex. *Society for Neuroscience Abstracts*, 1991, 17, 4.
- Damasio, A. R., and Damasio, H. The anatomic basis of pure alexia. *Neurology*, 1983, 33, 1573–1583.
- Damasio, A. R., and Damasio, H. Hemianopia, hemiachromatopsia, and the mechanisms of alexia. *Cortex*, 1986, 22, 161–169.
- Damasio, A. R., Damasio, H., and Van Hoesen, G. W. Prosopagnosia: Anatomic basis and behavioral mechanisms. *Neurology*, 1982, 32, 331–341.
- Damasio, A. R., and Tranel, D. Nouns and verbs are retrieved with differentially distributed neural systems. *Proceedings of the National Academy of Sciences, USA*, 1993, 90, 4957–4960.
- Damasio, A. R., Yamada, T., Damasio, H., Corbett, J., and McKee, J. Central achromatopsia: Behavioral, anatomic, and physiologic aspects. *Neurology*, 1980, 30, 1064–1071.
- Damasio, H. Neuroimaging contributions to the understanding of aphasia. In *Handbook of Neuropsychology*, Vol. 2, edited by F. Boller and J. Grafman. Amsterdam: Elsevier, 1989.
- Damasio, H., and Damasio, A. R. The anatomical basis of conduction aphasia. *Brain*, 1980, 103, 337–350.
- Damasio, H., Eslinger, P., and Adams, H. P. Aphasia following basal ganglia lesions: New evidence. *Seminars in Neurology*, 1984, 4, 151–161.
- Damasio, H., Grabowski, T., Frank, R., Galaburda, A. M., and Damasio, A. R. The return of Phineas Gage: Clues about the brain from the skull of a famous patient. *Science*, 1994, 264, 1102–1105.
- Damsma, G., Day, J., and Fibiger, H. C. Lack of tolerance to nicotine-induced dopamine release in the nucleus accumbens. *European Journal of Pharmacology*, 1989, 168, 363–368.
- Daniele, A., Giustolisi, L., Silveri, M. C., Colosimo, C., and Gainotti, G. Evidence for a possible neuroanatomical basis for lexical processing of nouns and verbs. *Neuropsychologia*, 1994, 32, 1325–1341.
- Daniels, D., Miselis, R. R., and Flanagan-Cato, L. M. Central neuronal circuit innervating the lordosis-producing muscles defined by transneuronal transport of pseudorabies virus. *Journal of Neuroscience*, 1999, 19, 2823–2833.
- Darwin, C. *The Expression of the Emotions in Man and Animals*. Chicago: University of Chicago Press, 1872/1965.
- Davidson, D., Swift, R., and Fitz, E. Naltrexone increases the latency to drink alcohol in social drinkers. *Alcoholism: Clinical and Experimental Research*, 1996, 20, 732–739.
- Davis, J. D., and Campbell, C. S. Peripheral control of meal size in the rat: Effect of sham feeding on meal size and drinking rate. *Journal of Comparative and Physiological Psychology*, 1973, 83, 379–387.
- Davis, J. O., Phelps, J. A., and Bracha, H. S. Prenatal development of monozygotic twins and concordance for schizophrenia. *Schizophrenia Bulletin*, 1995, 21, 357–366.
- Davis, M. The role of the amygdala in fear and anxiety. *Annual Review of Neuroscience*, 1992a, 15, 353–375.
- Davis, M. The role of the amygdala in fear-potentiated startle: Implications for animal models of anxiety. *Trends in Pharmacological Sciences*, 1992b, 13, 35–41.
- Davison, G. C., and Neale, J. M. *Abnormal Psychology: An Experimental Clinical Approach*. New York: John Wiley & Sons, 1974.
- Daw, N. W. Colour-coded ganglion cells in the goldfish retina: Extension of their receptive fields by means of new stimuli. *Journal of Physiology (London)*, 1968, 197, 567–592.
- Dawson, T. M., and Dawson, V. L. Molecular pathways of neurodegeneration in Parkinson's disease. *Science*, 2003, 302, 819–822.
- Day, J., Damsma, G., and Fibiger, H. C. Cholinergic activity in the rat hippocampus, cortex and striatum correlates with locomotor activity: An in vivo microdialysis study. *Pharmacology, Biochemistry, and Behavior*, 1991, 38, 723–729.
- Deacon, S., and Arendt, J. Adapting to phase shifts. I. An experimental model for jet lag and shift work. *Physiology and Behavior*, 1996, 59, 665–673.
- Dean, P. Effects of inferotemporal lesions on the behavior of monkeys. *Psychological Bulletin*, 1976, 83, 41–71.
- Debanne, D., Gähwiler, B. H., and Thompson, S. M. Asynchronous pre- and postsynaptic activity induces associative long-term depression in area CA1 of the rat hippocampus *in vitro*. *Proceedings of the National Academy of Sciences*, 1994, 91, 1148–1152.
- de Castro, J. M., McCormick, J., Pedersen, M., and Kreitzman, S. N. Spontaneous human meal patterns are related to preprandial factors regardless of natural environmental constraints. *Physiology and Behavior*, 1986, 38, 25–29.
- De Gennaro, L., Ferrara, M., and Bertini, M. The spontaneous K-complex during stage 2 sleep: Is it the "forerunner" of delta waves? *Neuroscience Letters*, 2000, 291, 41–43.
- Dejerine, J. Contribution à l'étude anatomo-pathologique et clinique des différentes variétés de cécité verbale. *Comptes Rendus des Séances de la Société de Biologie et de Ses Filiales*, 1892, 4, 61–90.
- De Jonge, F. H., Oldenburger, W. P., Louwerse, A. L., and van de Poll, N. E. Changes in male copulatory behavior after sexual exciting stimuli: Effects of medial amygdala

- lesions. *Physiology and Behavior*, 1992, 52, 327–332.
- Delgado, P. L., Charney, D. S., Price, L. H., Aghajanian, G. K., Landis, H., and Heninger, G. R. Serotonin function and the mechanism of antidepressant action: Reversal of antidepressant induced remission by rapid depletion of plasma tryptophan. *Archives of General Psychiatry*, 1990, 47, 411–418.
- DeLong, G. R. Autism: New data suggest a new hypothesis. *Neurology*, 1999, 52, 911–916.
- Dement, W. C. The effect of dream deprivation. *Science*, 1960, 131, 1705–1707.
- Deol, M. S., and Gluecksohn-Waelsch, S. The role of inner hair cells in hearing. *Nature*, 1979, 278, 250–252.
- Dérousné, J., and Beauvois, M.-F. Phonological processing in reading: Data from alexia. *Journal of Neurology, Neurosurgery, and Psychiatry*, 1979, 42, 1125–1132.
- Desimone, R., Albright, T. D., Gross, C. G., and Bruce, D. Stimulus-selective properties of inferior temporal neurons in the macaque. *Journal of Neuroscience*, 1984, 8, 2051–2062.
- Deutch, A. Y. The regulation of subcortical dopamine systems by the prefrontal cortex: Interactions of central dopamine systems and the pathogenesis of schizophrenia. *Journal of Neural Transmission*, 1992, 36, 61–89.
- Deutsch, J. A., and Gonzalez, M. F. Gastric nutrient content signals satiety. *Behavioral and Neural Biology*, 1980, 30, 113–116.
- De Valois, R. L., Albrecht, D. G., and Thorell, L. Cortical cells: Bar detectors or spatial frequency filters? In *Frontiers in Visual Science*, edited by S. J. Cool and E. L. Smith. Berlin: Springer-Verlag, 1978.
- De Valois, R. L., and De Valois, K. K. *Spatial Vision*. New York: Oxford University Press, 1988.
- Devane, W. A., Hanus, L., Breuer, A., Pertwee, R. G., Stevenson, L. A., Griffin, G., Gibson, D., Mandelbaum, A., Etinger, A., and Mechoulam, R. Isolation and structure of a brain constituent that binds to the cannabinoid receptor. *Science*, 1992, 258, 1946–1949.
- Devine, D. P., and Wise, R. A. Self-administration of morphine, DAMGO, and DPDPE into the ventral tegmental area of rats. *Journal of Neuroscience*, 1994, 14, 1978–1984.
- Diamond, D. M., Park, C. R., Heman, K. L., and Rose, G. M. Exposing rats to a predator impairs spatial working memory in the radial arm water maze. *Hippocampus*, 1999, 9, 542–552.
- Diamond, M., and Sigmundson, H. K. Sex reassignment at birth: Long-term review and clinical implications. *Archives of Pediatric and Adolescent Medicine*, 1997, 151, 298–304.
- Di Chiara, G. The role of dopamine in drug abuse viewed from the perspective of its role in motivation. *Drug and Alcohol Dependency*, 1995, 38, 95–137.
- Di Ciano, P., Coury, A., Depoortere, R. Y., Egilmez, Y., Lane, J. D., Emmett-Oglesby, M. W., Lepiane, F. G., Phillips, A. G., and Blaha, C. D. Comparison of changes in extracellular dopamine concentrations in the nucleus accumbens during intravenous self-administration of cocaine or d-amphetamine. *Behavioural Pharmacology*, 1995, 6, 311–322.
- Digiovanni, M., Dalessandro, G., Baldini, S., Cantalupi, D., and Bottacchi, E. Clinical and neuroradiological findings in a case of pure word deafness. *Italian Journal of Neurological Sciences*, 1992, 13, 507–510.
- Dijk, D. J., Boulos, Z., Eastman, C. I., Lewy, A. J., Campbell, S. S., and Terman, M. Light treatment for sleep disorders: Consensus report. 2. Basic properties of circadian physiology and sleep regulation. *Journal of Biological Rhythms*, 1995, 10, 113–125.
- di Tomaso, E., Beltramino, M., and Piomelli, D. Brain cannabinoids in chocolate. *Nature*, 1996, 382, 677–678.
- Dixon, A. K. The effect of olfactory stimuli upon the social behaviour of laboratory mice (*Mus musculus L.*). Doctoral dissertation, Birmingham University, Birmingham, England, 1973.
- Dixon, A. K., and Mackintosh, J. H. Effects of female urine upon the social behaviour of adult male mice. *Animal Behaviour*, 1971, 19, 138–140.
- Donny, E. C., Caggiula, A. R., Knopf, S., and Brown, C. Nicotine self-administration in rats. *Psychopharmacology*, 1995, 122, 390–394.
- Doty, R. L. Olfaction. *Annual Review of Psychology*, 2001, 52, 423–452.
- Dougherty, D. D., Baie, L., Gosgrove, G. R., Cassem, E. H., Price, B. H., Nierenberg, A. A., Jenike, M. A., and Rauch, S. L. Prospective long-term follow-up of 44 patients who received cingulotomy for treatment-refractory obsessive-compulsive disorder. *American Journal of Psychiatry*, 2002, 159, 269–275.
- Dougherty, D. D., Bonab, A. A., Spencer, T. J., Rauch, S. L., Madras, B. K., and Fischman, A. J. Dopamine transporter density in patients with attention deficit hyperactivity disorder. *Lancet*, 1999, 354, 2132–2133.
- Douglass, J., McKinzie, A. A., and Couceyro, P. PCR differential display identifies a rat brain mRNA that is transcriptionally regulated by cocaine and amphetamine. *Journal of Neuroscience*, 1995, 15, 2471–2481.
- Dovey, H. F., John, V., Anderson, J. P., Chen, L. Z., de Saint Andrieu, P., Fang, L. Y., Freedman, S. B., Folmer, B., Goldbach, E., Holsztynska, E. J., Hu, K. L., Johnson-Wood, K. L., Kennedy, S. L., Khodolenko, D., Knops, J. E., Latimer, L. H., Lee, M., Liao, Z., Lieberburg, I. M., Motter, R. N., Mutter, L. C., Nietz, J., Quinn, K. P., Sacchi, K. L., Seubert, P. A., Shopp, G. M., Thorsett, E. D., Tung, J. S., Wu, J., Yang, S., Yin, C. T., Schenk, D. B., May, P. C., Altstiel, L. D., Bender, M. H., Boggs, L. N., Britton, T. C., Clemens, J. C., Czilli, D. L., Dieckmann-Ginty, D. K., Droste, J. J., Fuson, K. S., Gitter, B. D., Hyslop, P. A., Johnstone, E. M., Li, W. Y., Little, S. P., Mabry, T. E., Miller, F. D., Ni, B., Nissen, J. S., Porter, W. J., Potts, B. D., Reel, J. K., Stephenson, D., Su, Y., Shipley, L. A., Whitesitt, C. A., Yin, T., and Audia, J. E. Functional gamma-secretase inhibitors reduce beta-amyloid peptide levels in brain. *Journal of Neurochemistry*, 2001, 76, 173–181.
- Drevets, W. C. Neuroimaging studies of mood disorders. *Biological Psychiatry*, 2000a, 48, 813–829.
- Drevets, W. C. Functional anatomical abnormalities in limbic and prefrontal cortical structures in major depression. *Progress in Brain Research*, 2000b, 126, 413–431.
- Drevets, W. C. Neuroimaging and neuropathological studies of depression: Implications for the cognitive-emotional features of mood disorders. *Current Opinions in Neurobiology*, 2001, 11, 240–249.
- Drevets, W. C., Price, J. L., Simpson, J. R., Todd, R. D., Reich, T., Vannier, M., and Raichle, M. E. Subgenual prefrontal cortex abnormalities in mood disorders. *Nature*, 1997, 386, 824–827.
- Drevets, W. C., Videen, T. O., Price, J. L., Preskorn, S. H., Carmichael, S. T., and Raichle, M. E. A functional anatomical study of unipolar depression. *Journal of Neuroscience*, 1992, 12, 3628–3641.
- Dronkers, N. F. A new brain region for coordinating speech articulation. *Nature*, 1996, 384, 159–161.
- Dryden, S., Wang, Q., Frankish, H. M., Pickavance, L., and Williams, G. The serotonin (5-HT) antagonist methysergide increases neuropeptide-Y (NPY) synthesis and secretion in the hypothalamus of the rat. *Brain Research*, 1995, 699, 12–18.
- Dube, M. G., Kalra, S. P., and Kalra, P. S. Food intake elicited by central administration of orexins/hypocretins: Identification of hypothalamic sites of action. *Brain Research*, 1999, 842, 473–477.
- Duchenne, G.-B. *The Mechanism of Human Facial Expression* (translated by R. A. Cuthbertson). Cambridge, England: Cambridge University Press, 1990. (Original work published 1862.)
- Dujardin, K., Guerrien, A., and Leconte, P. Sleep, brain activation and cognition. *Physiology and Behavior*, 1990, 47, 1271–1278.
- Dunnett, S. B., Lane, D. M., and Winn, P. Ibotenic acid lesions of the lateral hypothalamus: Comparison with 6-hydroxy-dopamine-induced sensorimotor deficits. *Neuroscience*, 1985, 14, 509–518.
- Durie, D. J. Sleep in animals. In *Psychopharmacology of Sleep*, edited by D. Wheatley. New York: Raven Press, 1981.
- Duva, M. A., Tomkins, E. M., Moranda, L. M., Kaplan, R., Sukhaseum, A., Jimenez, A., and Stanley, B. G. Reverse microdialysis of N-methyl-D-aspartic acid into the lateral hypothalamus of rats: Effects on feeding and other behaviors. *Brain Research*, 2001, 921, 122–132.
- Eaton, W. W., Kessler, R. C., Wittchen, H. U., and Magee, W. J. Panic and panic disorder in the United States. *American Journal of Psychiatry*, 1994, 151, 413–420.
- Eaton, W. W., Mortensen, P. B., and Frydenberg, M. Obstetric factors, urbanization and psychosis. *Schizophrenia Research*, 2000, 43, 117–123.
- Eckel, L. S., Langhans, W., Kahler, A., Campfield, L. A., Smith, F. J., and Geary, N. Chronic administration of OB protein decreases food intake by selectively reducing meal size in female rats. *American Journal of Physiology*, 1998, 275, R186–R193.
- Eddy, N. B., Halbach, H., Isbell, H., and Seegers, M. H. Drug dependence: Its significance and characteristics. *Bulletin of the World Health Organization*, 1965, 32, 721–733.
- Eden, G. F., and Zeffiro, T. A. Neural systems affected in developmental dyslexia revealed by functional neuroimaging. *Neuron*, 1998, 21, 279–282.
- Edwards, D. P., Purpura, K. P., and Kaplan, E. Contrast sensitivity and spatial-frequency response of primate cortical neurons in and around the cytochrome oxidase blobs. *Vision Research*, 1995, 35, 1501–1523.

- Eichenbaum, H., Otto, T., and Cohen, N. J. The hippocampus: What does it do? *Behavioral and Neural Biology*, 1992, 57, 2–36.
- Eichenbaum, H., Stewart, C., and Morris, R. G. M. Hippocampal representation in spatial learning. *Journal of Neuroscience*, 1990, 10, 331–339.
- Ekman, P. *The Face of Man: Expressions of Universal Emotions in a New Guinea Village*. New York: Garland STPM Press, 1980.
- Ekman, P. Facial expressions of emotion: An old controversy and new findings. *Philosophical Transactions of the Royal Society of London [B]*, 1992, 335, 63–69.
- Ekman, P., and Davidson, R. J. Voluntary smiling changes regional brain activity. *Psychological Science*, 1993, 4, 342–345.
- Ekman, P., and Friesen, W. V. Constants across cultures in the face and emotion. *Journal of Personality and Social Psychology*, 1971, 17, 124–129.
- El Mansari, M., Sakai, K., and Jouvet, M. Unitary characteristics of presumptive cholinergic tegmental neurons during the sleep-waking cycle in freely moving cats. *Experimental Brain Research*, 1989, 76, 519–529.
- Elias, C. F., Lee, C., Kelly, J., Aschkenasi, C., Ahima, R. S., Couceyro, P., Kuhar, M. J., Saper, C. B., and Elmquist, J. K. Leptin activates hypothalamic CART neurons projecting to the spinal cord. *Neuron*, 1998b, 21, 1375–1385.
- Elias, C. F., Saper, C. B., Maratos-Flier, E., Tritos, N. A., Lee, C., Kelly, J., Tatro, J. B., Hoffman, G. E., Ollmann, M. M., Barsh, G. S., Sakurai, T., Yanagisawa, M., and Elmquist, J. K. Chemically defined projections linking the mediobasal hypothalamus and the lateral hypothalamic area. *Journal of Comparative Neurology*, 1998a, 402, 442–459.
- Elias, M. Serum cortisol, testosterone and testosterone binding globulin responses to competitive fighting in human males. *Aggressive Behavior*, 1981, 7, 215–224.
- Elkis, H., Friedman, L., Buckley, P. F., Lee, H. S., Lys, C., Kaufman, B., and Meltzer, H. Y. Increased prefrontal sulcal prominence in relatively young patients with unipolar major depression. *Psychiatry Research: Neuroimaging*, 1996, 67, 123–134.
- Elmquist, J. K., Elias, C. F., and Saper, C. B. From lesions to leptin: Hypothalamic control of food intake and body weight. *Neuron*, 1999, 22, 221–232.
- Ende, G., Braus, D. F., Walter, S., Weber-Fahr, W., and Henn, F. A. The hippocampus in patients treated with electroconvulsive therapy. *Archives of General Psychiatry*, 2000, 57, 937–943.
- Endoh, M., Maiiese, K., and Wagner, J. A. Expression of the neural form of nitric oxide synthase by CA1 hippocampal neurons and other central nervous system neurons. *Neuroscience*, 1994, 63, 679–689.
- Ernst, M., Zametkin, A. J., Matochik, J. A., Jons, P. H., and Cohen, R. M. DOPA decarboxylase activity in attention deficit hyperactivity disorder adults: A [fluorine¹⁸] flurodopa positron emission tomographic study. *Journal of Neuroscience*, 1998, 18, 5901–5907.
- Ernulf, K. E., Innala, S. M., and Whitam, F. L. Biological explanation, psychological explanation, and tolerance of homosexuals: A cross-national analysis of beliefs and attitudes. *Psychological Reports*, 1989, 248, 183–188.
- Eslinger, P. J., and Damasio, A. R. Severe disturbance of higher cognition after bilateral frontal lobe ablation: Patient EVR. *Neurology*, 1985, 35, 1731–1741.
- Estabrooke, I. V., McCarthy, M. T., Ko, E., Chou, T. C., Chemelli, R. M., Yanagisawa, M., Saper, C. B., and Scammell, T. E. Fos expression in orexin neurons varies with behavioral state. *Journal of Neuroscience*, 2001, 21, 1656–1662.
- Everitt, B. J., Cadot, M., and Robbins, T. W. Interactions between the amygdala and ventral striatum in stimulus-reward associations: Studies using a second-order schedule of sexual reinforcement. *Neuroscience*, 1989, 30, 63–75.
- Fabbro, F. The bilingual brain: Bilingual aphasia. *Brain and Language*, 2001a, 79, 201–210.
- Fabbro, F. The bilingual brain: Cerebral representation of languages. *Brain and Language*, 2001b, 79, 211–229.
- Fanselow, M. S., and Kim, J. J. Acquisition of contextual Pavlovian fear conditioning is blocked by application of an NMDA receptor antagonist, D,L-2-amino-5-phosphonovaleric acid to the basolateral amygdala. *Behavioral Neuroscience*, 1994, 108, 210–212.
- Faraone, S., and Biederman, J. Genetics of attention-deficit hyperactivity disorder. *Child and Adolescent Psychiatric Clinics of North America*, 1994, 3, 285–302.
- Farber, N. B., Woźniak, D. F., Price, M. T., Labruyere, J., Huss, J., St. Peter, H., and Olney, J. W. Age-specific neurotoxicity in the rat associated with NMDA receptor blockade: Potential relevance to schizophrenia? *Biological Psychiatry*, 1995, 38, 788–796.
- Farlow, M., Murrell, J., Ghetti, B., Unverzagt, F., Zeldenrust, S., and Benson, M. Clinical characteristics in a kindred with early-onset Alzheimers-disease and their linkage to a G/T change at position-2149 of amyloid precursor protein gene. *Neurology*, 1994, 44, 105–111.
- Farooqi, I. S., Keogh, J. M., Kamath, S., Jones, S., Gibson, W. T., Trussell, R., Jebb, S. A., Lip, G. Y. H., and O’Rahilly, S. Partial leptin deficiency and human adiposity. *Nature*, 2001, 414, 34–35.
- Farrington, C. P., Miller, E., and Taylor, B. MMR and autism: Further evidence against a causal association. *Vaccine*, 2001, 27, 3632–3635.
- Fava, M., Copeland, P. M., Schweiger, U., and Herzog, M. D. Neurochemical abnormalities of anorexia nervosa and bulimia nervosa. *American Journal of Psychiatry*, 1989, 146, 963–971.
- Feder, H. H. Estrous cyclicity in mammals. In *Neuroendocrinology of Reproduction*, edited by N. T. Adler. New York: Plenum Press, 1981.
- Feigenbaum, S. L., Masi, A. T., and Kaplan, S. B. Prognosis in rheumatoid arthritis: A longitudinal study of newly diagnosed younger adult patients. *American Journal of Medicine*, 1979, 66, 377–384.
- Feinle, C., Grundy, D., and Read, N. W. Effects of duodenal nutrients on sensory and motor responses of the human stomach to distension. *American Journal of Physiology*, 1997, 273, G721–G726.
- Fernandez-Ruiz, J., Wang, J., Aigner, T. G., and Mishkin, M. Visual habit formation in monkeys with neurotoxic lesions of the ventrocaudal neostriatum. *Proceedings of the National Academy of Sciences, USA*, 2001, 98, 4196–4201.
- Fibiger, H. C. The dopamine hypothesis of schizophrenia and mood disorders: Contradictions and speculations. In *The Mesolimbic Dopamine System: From Motivation to Action*, edited by P. Willner and J. Scheel-Krüger. Chichester, England: John Wiley & Sons, 1991.
- Fieve, R. R. The clinical effects of lithium treatment. *Trends in Neurosciences*, 1979, 2, 66–68.
- Fiez, J. A., and Petersen, S. E. Neuroimaging studies of word reading. *Proceedings of the National Academy of Science, USA*, 1998, 94, 914–921.
- Fiez, J. A., Balota, D. A., Raichle, M. E., and Petersen, S. E. Effects of lexicality, frequency, and spelling-to-sound consistency on the functional anatomy of reading. *Neuron*, 1999, 24, 205–218.
- Finger, S. *Origins of Neuroscience: A History of Explorations into Brain Function*. New York: Oxford University Press, 1994.
- Firestein, S., Zufall, F., and Shepherd, G. M. Single odor-sensitive channels in olfactory receptor neurons are also gated by cyclic nucleotides. *Journal of Neuroscience*, 1991, 11, 3565–3572.
- Fisher, C., Gross, J., and Zuch, J. Cycle of penile erection synchronous with dreaming (REM) sleep: Preliminary report. *Archives of General Psychiatry*, 1965, 12, 29–45.
- Fisher, S. E., Marlow, A. J., Lamb, J., Maestrini, E., Williams, D. F., Richardson, A. J., Weeks, D. E., Stein, J. F. and Monaco, A. P. A quantitative-trait locus on chromosome 6p influences different aspects of developmental dyslexia. *American Journal of Human Genetics*, 1999, 4, 146–156.
- Fishman, P. S., and Oyler, G. A. Significance of the parkin gene and protein in understanding Parkinson’s disease. *Current Neurology and Neuroscience Reports*, 2002, 2, 296–302.
- Fiske, A. P., and Haslam, N. Is obsessive-compulsive disorder a pathology of the human disposition to perform socially meaningful rituals? Evidence of similar content. *Journal of Nervous and Mental Disease*, 1997, 185, 211–222.
- Fitzpatrick, D., Itoh, K., and Diamond, I. T. The laminar organization of the lateral geniculate body and the striate cortex in the squirrel monkey (*Saimiri sciureus*). *Journal of Neuroscience*, 1983, 3, 673–702.
- Fitzsimons, J. T., and Moore-Gillon, M. J. Drinking and antidiuresis in response to reductions in venous return in the dog: Neural and endocrine mechanisms. *Journal of Physiology (London)*, 1980, 308, 403–416.
- Flaum, M., and Andreasen, N. C. Diagnostic criteria for schizophrenia and related disorders: Options for DNS-IV. *Schizophrenia Bulletin*, 1990, 17, 27–49.
- Fletcher, P. J., Currie, P. J., Chambers, J. W., and Coscina, D. V. Radiofrequency lesions of the PVN fail to modify the effects of serotonergic drugs on food intake. *Brain Research*, 1993, 630, 1–9.
- Flock, A. Physiological properties of sensory hairs in the ear. In *Psychophysics and Physiology of Hearing*, edited by E. F. Evans and J. P. Wilson. London: Academic Press, 1977.
- Flood, J. F., and Morley, J. E. Increased food intake by neuropeptide Y is due to an increased motivation to eat. *Peptides*, 1991, 12, 1329–1332.
- Folstein, S. E., and Piven, J. Etiology of autism: Genetic influences. *Pediatrics*, 1991, 87, 767–773.

- Folstein, S. E., and Rosen-Sheidley, B. Genetics of autism: Complex aetiology for a heterogeneous disorder. *Nature Reviews: Genetics*, 2001, 2, 943–955.
- Fombonne, E. The epidemiology of autism: A review. *Psychological Medicine*, 1999, 29, 769–786.
- Forno, L. S. Neuropathology of Parkinson's disease. *Journal of Neuropathology and Experimental Neurology*, 1996, 55, 259–272.
- Foy, M. R., Stanton, M. E., Levine, S., and Thompson, R. F. Behavioral stress impairs long-term potentiation in rodent hippocampus. *Behavioral and Neural Biology*, 1987, 48, 138–149.
- Freed, C. R. Will embryonic stem cells be a useful source of dopamine neurons for transplant into patients with Parkinson's disease? *Proceedings of the National Academy of Science, USA*, 2002, 99, 1755–1757.
- Freed, C. R., Breeze, R. E., DeMasters, B. K., Galvin, J., Trojanowski, J. Q., Greene, P., Eidelberg, D., Fahn, S. Transplants of embryonic dopamine cells show progressive histologic maturation for at least 8 years and improve signs of Parkinsons up to the maximum benefit of L-DOPA preoperatively. *Annual Meeting, American Academy of Neurology*, Denver, CO, April 2002.
- Freedman, M. S., Lucas, R. J., Soni, B., von Schantz, M., Muñoz, M., David-Gray, Z., and Foster, R. Regulation of mammalian circadian behavior by non-rod, non-cone, ocular photoreceptors. *Science*, 1999, 284, 502–504.
- Frey, U., and Morris, R. G. Synaptic tagging and long-term potentiation. *Nature*, 1997, 385, 533–536.
- Frey, U., Krug, M., Reymann, K. G., and Matthies, H. Anisomycin, an inhibitor of protein synthesis, blocks late phases of LTP phenomena in the hippocampal CA1 region in vitro. *Brain Research*, 1988, 452, 57–65.
- Fride, E., and Mechoulam, R. Ontogenetic development of the response to anandamide and D⁹-tetrahydrocannabinol in mice. *Developmental Brain Research*, 1996, 95, 131–134.
- Friedman, M. I., and Bruno, J. P. Exchange of water during lactation. *Science*, 1976, 191, 409–410.
- Fry, J. M. Treatment modalities for narcolepsy. *Neurology*, 1998, 50, S43–S48.
- Fukuyawari, T., Kawada, T., Tsuruta, M., Hiroyaka, T., Iwanaga, T., Sugimoto, E., and Fushiki, T. Expression of the putative membrane fatty acid transporter (FAT) in taste buds of the circumvallate papillae in rats. *FEBS Letters*, 1997, 414, 461–464.
- Fullerton, C. S., Ursano, R. J., Epstein, R. S., Crowley, B., Vance, K., Kao, T. C., Dougall, A., and Baum, A. Gender differences in posttraumatic stress disorder after motor vehicle accidents. *American Journal of Psychiatry*, 2001, 158, 1485–1491.
- Gaffan, D., Gaffan, E. A., and Harrison, S. Disconnection of the amygdala from visual association cortex impairs visual reward-association learning in monkeys. *Journal of Neuroscience*, 1988, 9, 3144–3150.
- Gagliardo, A., Ioalé, P., and Bingman, V. P. Homing in pigeons: The role of the hippocampal formation in the representation of landmarks used for navigation. *Journal of Neuroscience*, 1999, 19, 3111–3115.
- Gallassi, R., Morreale, A., Montagna, P., Cortelli, P., Avoni, P., Castellani, R., Gammie, P., and Lugaresi, E. Fatal familial insomnia: Behavioral and Cognitive Features. *Neurology*, 1996, 46, 935–939.
- Garcia-Velasco, J., and Mondragon, M. The incidence of the vomeronasal organ in 1000 human subjects and its possible clinical significance. *Journal of Steroid Biochemistry and Molecular Biology*, 1991, 39, 561–563.
- Gardner, H., Brownell, H. H., Wapner, W., and Michelow, D. Missing the point: The role of the right hemisphere in the processing of complex linguistic materials. In *Cognitive Processing in the Right Hemisphere*, edited by E. Pericman. New York: Academic Press, 1983.
- Gariano, R. F., and Groves, P. M. Burst firing induced in midbrain dopamine neurons by stimulation of the medial prefrontal and anterior cingulate cortices. *Brain Research*, 1988, 462, 194–198.
- Gatchel, R. J., Baum, A., and Krantz, D. S. *An Introduction to Health Psychology*, 2nd ed. New York: Newbery Award Records, 1989.
- Gauthier, I., Skudlarski, P., Gore, J. C., and Anderson, A. W. Expertise for cars and birds recruits brain areas involved in face recognition. *Nature Neuroscience*, 2000, 3, 191–197.
- Gauthier, I., Tarr, M. J., Anderson, A. W., Skudlarski, P., and Gore, J. C. Activation of the middle fusiform "face area" increases with expertise in recognizing novel objects. *Nature Neuroscience*, 1999, 2, 568–573.
- Gayán, J., Smith, S. D., Cherny, S. S., Cardon, L. R., Fulker, D. W., Brower, A. M., Olson, R. K., Pennington, B. F., and DeFries, J. C. Quantitative-trait locus for specific language and reading deficits on chromosome 6p. *American Journal of Human Genetics*, 1999, 4, 157–164.
- Gazzaniga, M. S. *The Bisected Brain*. New York: Appleton-Century-Crofts, 1970.
- Gazzaniga, M. S., and LeDoux, J. E. *The Integrated Mind*. New York: Plenum Press, 1978.
- Geinisman, Y., DeToledo-Morrell, L., and Morrell, F. Induction of long-term potentiation is associated with an increase in the number of axospinous synapses with segmented postsynaptic densities. *Brain Research*, 1991, 566, 77–88.
- Geinisman, Y., DeToledo-Morrell, L., Morrell, F., Persina, I. S., and Beatty, M. A. Synapse restructuring associated with the maintenance phase of hippocampal long-term potentiation. *Journal of Comparative Neurology*, 1996, 368, 413–423.
- George, M. S., Ketter, T. A., Parekh, P. I., Horwitz, B., Herscovitch, P., and Post, R. M. Brain activity during transient sadness and happiness in healthy women. *American Journal of Psychiatry*, 1995, 152, 341–351.
- George, M. S., Parekh, P. I., Rosinsky, N., Ketter, T. A., Kimbrell, T. A., Heilman, K. M., Herscovitch, P., and Post, R. M. Understanding emotional prosody activates right hemisphere regions. *Archives of Neurology*, 1996, 53, 665–670.
- Georges-François, P., Rolls, E. T., and Robertson, R. G. Spatial view cells in the primate hippocampus: Allocentric view not head direction or eye position or place. *Cerebral Cortex*, 1999, 9, 197–212.
- Gerbino, L., Oleshansky, M., and Gershon, S. Clinical use and mode of action of lithium. In *Psychopharmacology: A Generation of Progress*, edited by M. A. Lipton, A. DiMascio, and K. F. Killam. New York: Raven Press, 1978.
- Gerhand, S. Routes to reading: A report of a non-semantic reader with equivalent performance on regular and exception words. *Neuropsychologia*, 2001, 39, 1473–1484.
- Gershon, E. S., Bunney, W. E., Leckman, J., Van Eerdewegh, M., and DeBauche, B. The inheritance of affective disorders: A review of data and hypotheses. *Behavior Genetics*, 1976, 6, 227–261.
- Geschwind, N., Quadfasel, F. A., and Segarra, J. M. Isolation of the speech area. *Neuropsychologia*, 1968, 6, 327–340.
- Gessa, G. L., Muntoni, F., Collu, M., Vargiu, L., and Mereu, G. Low doses of ethanol activate dopaminergic neurons in the ventral tegmental area. *Brain Research*, 1985, 348, 201–204.
- Gibbs, J., Young, R. C., and Smith, G. P. Cholecystokinin decreases food intake in rats. *Journal of Comparative and Physiological Psychology*, 1973, 84, 488–495.
- Giedd, J. N., Rapoport, J. L., Kruesi, M. J. P., Parker, C., Schapiro, M. B., Allen, A. J., Leonard, H. L., Kayser, D., Dickstein, D. P., Marsh, W. L., Kozuch, P. L., Vaituzis, A. C., Hamburger, S. D., and Swedo, S. E. Sydenham's chorea: Magnetic resonance imaging of the basal ganglia. *Neurology*, 1995, 45, 2199–2202.
- Gilbert, D. C., and Gilbert, B. O. Personality, psychopathology, and nicotine response as mediators of the genetics of smoking. *Behavioral Genetics*, 1995, 25, 133–148.
- Gilbertson, T. A., Fontenot, D. T., Liu, L., Zhang, H., and Monroe, W. T. Fatty acid modulation of K⁺ channels in taste receptor cells: Gustatory cues for dietary fat. *American Journal of Physiology*, 1997, 272, C1203–C1210.
- Giles, D. E., Biggs, M. M., Rush, A. J., and Roffwarg, H. P. Risk factors in families of unipolar depression. I. Psychiatric illness and reduced REM latency. *Journal of Affective Disorders*, 1988, 14, 51–59.
- Giles, D. E., Roffwarg, H. P., and Rush, A. J. REM latency concordance in depressed family members. *Biological Psychiatry*, 1987, 22, 910–924.
- Gillespie, P. G. Molecular machinery of auditory and vestibular transduction. *Current Opinion in Neurobiology*, 1995, 5, 449–455.
- Gillette, M. U., and McArthur, A. J. Circadian actions of melatonin at the suprachiasmatic nucleus. *Behavioural Brain Research*, 1995, 73, 135–139.
- Giordano, A. L., Siegel, H. I., and Rosenblatt, J. S. Nuclear estrogen receptor binding in the preoptic area and hypothalamus of pregnancy-terminated rats: Correlation with the onset of maternal behavior. *Neuroendocrinology*, 1989, 50, 248–258.
- Givens, B., and McMahon, K. Ethanol suppresses the induction of long-term potentiation in vivo. *Brain Research*, 1995, 688, 27–33.
- Glaser, R., Rice, J., Sheridan, J., Post, A., Ferrel, R., Stout, J., Speicher, C. E., Kotur, M., and Kiecolt-Glaser, J. K. Stress-related immune suppression: Health implications. *Brain, Behavior, and Immunity*, 1987, 1, 7–20.
- Glaum, S. R., Hara, M., Bindokas, V. P., Lee, C. C., Polonsky, K. S., Bell, G. I., and Miller, R. J. Leptin, the obese gene product, rapidly modulates synaptic transmission in the hypothalamus. *Molecular Pharmacology*, 1996, 50, 230–235.
- Gloor, P., Olivier, A., Quesney, L. F., Andermann, F., and Horowitz, S. The role of the limbic system in experiential phenomena of temporal lobe epilepsy. *Annals of Neurology*, 1982, 12, 129–144.

- Goate, A. M. Monogenetic determinants of Alzheimer's disease: APP mutations. *Cellular and Molecular Life Sciences*, 1998, 54, 897–901.
- Goddard, G. V. Development of epileptic seizures through brain stimulation at low intensity. *Nature*, 1967, 214, 1020–1021.
- Goeders, N. E., Lane, J. D., and Smith, J. E. Self-administration of methionine enkephalin into the nucleus accumbens. *Pharmacology, Biochemistry, and Behavior*, 1984, 20, 451–455.
- Goedert, M. Alpha-synuclein and neurodegenerative diseases. *Nature Review Neuroscience*, 2001, 2, 492–501.
- Goedert, M., and Spillantini, M. G. Tau mutations in frontotemporal dementia FTDP-17 and their relevance for Alzheimer's disease. *Biochimica et Biophysica Acta*, 2000, 1502, 110–121.
- Goff, D. C., Tsai, G., Levitt, J., Amico, E., Manoach, D., Schoenfeld, D. A., Hayden, D. L., McCarley, R., and Coyle, J. T. A placebo-controlled trial of D-cycloserine added to conventional neuroleptics in patients with schizophrenia. *Archives of General Psychiatry*, 1999, 56, 21–27.
- Golden, P. L., MacCagnan, T. J., and Pardridge, W. M. Human blood-brain barrier leptin receptor: Binding and endocytosis in isolated human brain microvessels. *Journal of Clinical Investigation*, 1997, 99, 14–18.
- Goldstein, R. Z., and Volkow, N. F. Drug addiction and its underlying neurological basis: Neuroimaging evidence for the involvement of the frontal cortex. *American Journal of Psychiatry*, 2002, 159, 1642–1652.
- Gonzales, R. A. NMDA receptors excite alcohol research. *Trends in Pharmacological Science*, 1990, 11, 137–139.
- Goodglass, H., and Kaplan, E. *Assessment of Aphasia and Related Disorders*. Philadelphia: Lea & Febiger, 1972.
- Goodwin, D. W. Alcoholism and heredity: A review and hypothesis. *Archives of General Psychiatry*, 1979, 36, 57–61.
- Gordon, H. W., and Sperry, R. Lateralization of olfactory perception in the surgically separated hemispheres in man. *Neuropsychologia*, 1969, 7, 111–120.
- Gorski, R. A., Gordon, J. H., Shryne, J. E., and Southam, A. M. Evidence for a morphological sex difference within the medial preoptic area of the rat brain. *Brain Research*, 1978, 148, 333–346.
- Gottesman, I. I., and Shields, J. *Schizophrenia: The Epigenetic Puzzle*. New York: Cambridge University Press, 1982.
- Gouras, P. Identification of cone mechanisms in monkey ganglion cells. *Journal of Physiology (London)*, 1968, 199, 533–538.
- Grabowski, T. J., Damasio, H., Tranel, D., Ponto, L. L., Hichwa, R. D., and Damasio, A. R. A role for left temporal pole in the retrieval of words for unique entities. *Human Brain Mapping*, 2001, 13, 199–212.
- Grace, A. A. Phasic versus tonic dopamine release and the modulation of dopamine system responsiveness: A hypothesis for the etiology of schizophrenia. *Neuroscience*, 1991, 41, 1–24.
- Graf, P., Squire, L. R., and Mandler, G. The information that amnesic patients do not forget. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 1984, 10, 164–178.
- Grafton, S. T., Waters, C., Sutton, J., Lew, M. F., and Couldwell, W. Pallidotomy increases activity of motor association cortex in Parkinson's disease: A positron emission tomographic study. *Annals of Neurology*, 1995, 37, 776–783.
- Gratacos, M., Nadal, M., Martin-Santos, R., Pi-jana, M. A., Gago, J., Peral, B., Armengol, L., Ponsa, I., Miro, R., Bulbena, A., and Estivill, X. A polymorphic genomic duplication on human chromosome 15 is a susceptibility factor for panic and phobic disorders. *Cell*, 2001, 106, 367–379.
- Grattan, D. R., Pi, X. J., Andrews, Z. B., Augustine, R. A., Kokay, I. C., Summerfield, M. R., Todd, B., and Bunn, S. J. Prolactin receptors in the brain during pregnancy and lactation: Implications for behavior. *Hormones and Behavior*, 2001, 40, 115–124.
- Graybiel, A. M. Basal ganglia: New therapeutic approaches to Parkinson's disease. *Current Biology*, 1996, 6, 368–371.
- Greenberg, R., and Pearlman, C. A. Cutting the REM nerve: An approach to the adaptive role of REM sleep. *Perspectives in Biology and Medicine*, 1974, 17, 513–521.
- Greene, J. D., Sommerville, R. B., Nystrom, L. E., Darley, J. M., and Cohen, J. D. An fMRI investigation of emotional engagement in moral judgment. *Science*, 2001, 293, 2105–2108.
- Grelotti, D. J., Gauthier, I., and Schultz, R. T. Social interest and the development of cortical face specialization: What autism teaches us about face processing. *Developmental Psychobiology*, 2002, 40, 213–225.
- Grigorenko, E. L., Wood, F. B., Meyer, M. S., Hart, L. A., Speed, W. C., Shuster, A., and Pauls, D. L. Susceptibility loci for distinct components of developmental dyslexia on chromosomes 6 and 15. *American Journal of Human Genetics*, 1997, 60, 27–39.
- Grill, H. J., and Kaplan, J. M. Caudal brain-stem participates in the distributed neural control of feeding. In *Handbook of Behavioral Neurobiology*. Vol. 10: *Neurobiology of Food and Fluid Intake*, edited by E. Stricker. New York: Plenum Press, 1990.
- Gross, C. G. Visual functions of inferotemporal cortex. In *Handbook of Sensory Physiology*, Vol. 7: *Central Processing of Visual Information*, edited by R. Jung. Berlin: Springer-Verlag, 1973.
- Grossman, E. D., and Blake, R. Brain activity evoked by inverted and imagined biological motion. *Vision Research*, 2001, 41, 1475–1482.
- Grossman, E. D., Donnelly, M., Price, R., Pickens, D., Morgan, V., Neighbor, G., and Blake, R. Brain areas involved in perception of biological motion. *Journal of Cognitive Neuroscience*, 2000, 12, 711–720.
- Guerin, G. F., Goeders, N. E., Dworkin, S. I., and Smith, J. E. Intracranial self-administration of dopamine into the nucleus accumbens. *Society for Neuroscience Abstracts*, 1984, 10, 1072.
- Guilleminault, C., Wilson, R. A., and Dement, W. C. A study on cataplexy. *Archives of Neurology*, 1974, 31, 255–261.
- Gura, T. Obesity sheds its secrets. *Science*, 1997, 275, 751–753.
- Gurd, J. M., and Marshall, J. C. Cognition: Righting reading. *Current Biology*, 1993, 3, 593–595.
- Gurevich, E. V., Bordelon, Y., Shapiro, R. M., Arnold, S. E., Gur, R. E., and Joyce, J. N. Mesolimbic dopamine D₃ receptors and use of antipsychotics in patients with schizophrenia: A postmortem study. *Archives of General Psychiatry*, 1997, 54, 225–232.
- Guridi, J., and Obeso, J. A. The subthalamic nucleus, hemiballismus and Parkinson's disease: Reappraisal of a neurosurgical dogma. *Brain*, 2001, 124, 5–19.
- Gurvits, T. V., Shenton, M. E., Hokama, H., Ohta, H., Lasko, N. B., Gilbertson, M. W., Orr, S. P., Kikinis, R., Jolesz, F. A., McCarley, R. W., and Pitman, R. K. Magnetic resonance imaging study of hippocampal volume in chronic, combat-related posttraumatic stress disorder. *Biological Psychiatry*, 1996, 40, 1091–1099.
- Habib, M. The neurological basis of developmental dyslexia: An overview and working hypothesis. *Brain*, 2000, 123, 2373–2399.
- Hadjikhani, N., Liu, A. K., Dale, A. M., Cavanagh, P., and Tootell, R. B. H. Retinotopy and color sensitivity in human visual cortical area V8. *Nature Neuroscience*, 1998, 1, 235–241.
- Hahn, T. M., Breininger, J. F., Baskin, D. G., and Schwartz, M. W. Coexpression of AgRP and NPY in fasting-activated hypothalamic neurons. *Nature Neuroscience*, 1998, 1, 271–272.
- Hajak, G., Clarenbach, P., Fischer, W., Haase, W., Bandelow, B., Adler, L., and Ruther, E. Effects of hypnotics on sleep quality and daytime well-being: Data from a comparative multicentre study in outpatients with insomnia. *European Psychiatry*, 1995, 10 (Suppl. 3), 173S–179S.
- Hakansson, M. L., Hulting, A. L., and Meister, B. Expression of leptin receptor messenger RNA in the hypothalamic arcuate nucleus: Relationship with NPY neurons. *Neuroreport*, 1996, 7, 3087–3092.
- Halaas, J. L., Gajiwala, K. D., Maffei, M., Cohen, S. L., Chait, B. T., Rabinowitz, D., Lalonde, R. L., Burley, S. K., and Friedman, J. M. Weight-reducing effects of the plasma protein encoded by the obese gene. *Science*, 1995, 269, 543–546.
- Haley, J. E., Wilcox, G. L., and Chapman, P. F. The role of nitric oxide in hippocampal long-term potentiation. *Neuron*, 1992, 8, 211–216.
- Halgren, E., Walter, R. D., Cherlow, D. G., and Crandall, P. E. Mental phenomena evoked by electrical stimulation of the human hippocampal formation and amygdala. *Brain*, 1978, 101, 83–117.
- Halmi, K. A. Anorexia nervosa: Recent investigations. *Annual Review of Medicine*, 1978, 29, 137–148.
- Halmi, K. A., Eckert, E., LaDu, T. J., and Cohen, J. Anorexia nervosa: Treatment efficacy of cyproheptadine and amitriptyline. *Archives of General Psychiatry*, 1986, 43, 177–181.
- Halpern, M. The organization and function of the vomeronasal system. *Annual Review of Neuroscience*, 1987, 10, 325–362.
- Hamberger, M. J., Goodman, R. R., Perrine, K., and Tamny, T. Anatomic dissociation of auditory and visual naming in the lateral temporal cortex. *Neurology*, 2001, 56, 56–61.
- Hamm, R. J., Temple, M. D., O'Dell, D. M., Pike, B. R., and Lyeth, B. G. Exposure to environmental complexity promotes recovery of cognitive function after traumatic brain injury. *Journal of Neurotrauma*, 1996, 13, 41–47.
- Hara, J., Beuckmann, C. T., Nambu, T., Willie, J. T., Chemelli, R. M., Sinton, C. M.,

- Sugiyama, F., Yagami, K., Goto, K., Yanagisawa, M., and Sakurai, T. Genetic ablation of orexin neurons in mice results in narcolepsy, hypophagia, and obesity. *Neuron*, 2001, **30**, 345–354.
- Hardy, J. Amyloid, the presenilins and Alzheimer's disease. *Trends in Neuroscience*, 1997, **4**, 154–159.
- Harris, G. W., and Jacobsohn, D. Functional grafts of the anterior pituitary gland. *Proceedings of the Royal Society of London [B]*, 1951–1952, **139**, 263–267.
- Hartline, H. K. The response of single optic nerve fibers of the vertebrate eye to illumination of the retina. *American Journal of Physiology*, 1938, **121**, 400–415.
- Harvey, S. M. Female sexual behavior: Fluctuations during the menstrual cycle. *Journal of Psychosomatic Research*, 1987, **31**, 101–110.
- Hattar, S., Liao, H.-W., Takao, M., Berson, D. M., and Yau, K.-W. Melanopsin-containing retinal ganglion cells: Architecture, projections, and intrinsic photosensitivity. *Science*, 2002, **295**, 1065–1070.
- Haug, H.-J. Prediction of sleep deprivation outcome by diurnal variation of mood. *Biological Psychiatry*, 1992, **31**, 271–278.
- Havel, P. J., Townsend, R., Chaump, L., and Teff, K. High-fat meals reduce 24-h circulating leptin concentrations in women. *Diabetes*, 1999, **48**, 334–341.
- Hawke, C. Castration and sex crimes. *American Journal of Mental Deficiency*, 1951, **55**, 220–226.
- Haxby, J. V., Horwitz, B., Ungerleider, L. G., Maisog, J. M., Pietrini, P., and Grady, C. L. The functional organization of human extrastriate cortex: A PET-TCBF study of selective attention to faces and locations. *Journal of Neuroscience*, 1994, **14**, 6336–6353.
- Heath, A. C., Madden, P. A. F., Slutske, W. S., and Martin, N. G. Personality and the inheritance of smoking behavior: A genetic perspective. *Behavioral Genetics*, 1995, **25**, 103–118.
- Hebb, D. O. *The Organization of Behaviour*. New York: Wiley-Interscience, 1949.
- Heckler, M. M. *Fifth Special Report to the U.S. Congress on Alcohol and Health*. Washington, DC: U.S. Government Printing Office, 1983.
- Heffner, H. E., and Heffner, R. S. Role of primate auditory cortex in hearing. In *Comparative Perception. Vol. II: Complex Signals*, edited by W. C. Stebbins and M. A. Berkley. New York: John Wiley & Sons, 1990.
- Heilmann, K. M., Watson, R. T., and Bowers, D. Affective disorders associated with hemispheric disease. In *Neuropsychology of Human Emotion*, edited by K. M. Heilmann and P. Satz. New York: Guilford Press, 1983.
- Heimer, L., and Larsson, K. Impairment of mating behavior in male rats following lesions in the preoptic-anterior hypothalamic continuum. *Brain Research*, 1966/1967, **3**, 248–263.
- Heinrichs, S. C., Menzaghi, F., Pich, E. M., Baldwin, H. A., Rassnick, S., Britton, K. T., and Koob, G. F. Anti-stress action of a corticotropin-releasing factor antagonist on behavioral reactivity to stressors of varying type and intensity. *Neuropharmacology*, 1994, **11**, 179–186.
- Helenius, P., Utuola, K., and Hari, R. Auditory stream segregation in dyslexic adults. *Brain*, 1999, **122**, 907–913.
- Hellhammer, D. H., Hubert, W., and Schurmeyer, T. Changes in saliva testosterone after psychological stimulation in men. *Psychoneuroendocrinology*, 1985, **10**, 77–81.
- Helmuth, L. Dyslexia: Same brains, different languages. *Science*, 2001, **291**, 2064–2065.
- Henderson, W. W. The epidemiology of estrogen replacement therapy and Alzheimer's disease. *Neurology*, 1997, **48**, S27–S35.
- Hendrickson, A. E., Wagoner, N., and Cowan, W. M. Autoradiographic and electron microscopic study of retino-hypothalamic connections. *Zeitschrift für Zellforschung und Mikroskopische Anatomie*, 1972, **125**, 1–26.
- Hendry, S. H. C., and Yoshioka, T. A neurochemically distinct third channel in the caaque dorsal lateral geniculare nucleus. *Science*, 1994, **264**, 575–577.
- Henke, P. G. The telencephalic limbic system and experimental gastric pathology: A review. *Neuroscience and Biobehavioral Reviews*, 1982, **6**, 381–390.
- Hennessey, A. C., Camak, L., Gordon, F., and Edwards, D. A. Connections between the pontine central gray and the ventromedial hypothalamus are essential for lordosis in female rats. *Behavioral Neuroscience*, 1990, **104**, 477–488.
- Heresco-Levy, U., Javitt, D. C., Ermilov, M., Mordel, C., Silipo, G., and Lichtenstein, M. Efficacy of high-dose glycine in the treatment of enduring negative symptoms of schizophrenia. *Archives of General Psychiatry*, 1999, **56**, 29–36.
- Herholz, K. Neuroimaging in anorexia nervosa. *Psychiatry Research*, 1996, **62**, 105–110.
- Hertzmann, M., Reba, R. C., and Kotlyarov, E. V. Single photon emission computed tomography in phencyclidine and related drug abuse. *American Journal of Psychiatry*, 1990, **147**, 255–256.
- Hetherington, A. W., and Ranson, S. W. Hypothalamic lesions and adiposity in the rat. *Anatomical Record*, 1942, **78**, 149–172.
- Hettema, J. M., Neale, M. C., and Kendler, K. S. A review and meta-analysis of the genetic epidemiology of anxiety disorders. *American Journal of Psychiatry*, 2001, **158**, 1568–1578.
- Hetz, C., Russelakis-Carneiro, M., Maundrell, K., Castilla, J., and Soto, C. Caspase-12 and endoplasmic reticulum stress mediate neurotoxicity of pathological prion protein. *The EMBO Journal*, 2003, **22**, 5435–5445.
- Heuser, J. E. Synaptic vesicle exocytosis revealed in quick-frozen frog neuromuscular junctions treated with 4-aminopyridine and given a single electrical shock. In *Society for Neuroscience Symposia. Vol. II*, edited by W. M. Cowan and J. A. Ferrendelli. Bethesda, Md.: Society for Neuroscience, 1977.
- Heuser, J. E., Reese, T. S., Dennis, M. J., Jan, Y., Jan, L., and Evans, L. Synaptic vesicle exocytosis captured by quick freezing and correlated with quantal transmitter release. *Journal of Cell Biology*, 1979, **81**, 275–300.
- Heywood, C. A., Gaffan, D., and Cowey, A. Cerebral achromatopsia in monkeys. *European Journal of Neuroscience*, 1995, **7**, 1064–1073.
- Higley, J. D., Mehlman, P. T., Higley, S. B., Fernald, B., Vickers, J., Lindell, S. G., Taub, D. M., Suomi, S. J., and Linnoila, M. Excessive mortality in young free-ranging male nonhuman primates with low cerebrospinal fluid 5-hydroxyindoleacetic acid concentrations. *Archives of General Psychiatry*, 1996a, **53**, 537–543.
- Higley, J. D., Mehlman, P. T., Poland, R. E., Taub, D. M., Vickers, J., Suomi, S. J., and Linnoila, M. CSF testosterone and 5-HIAA correlate with different types of aggressive behaviors. *Biological Psychiatry*, 1996b, **40**, 1067–1082.
- Hilditch-Maguire, P., Trettel, F., Passani, L. A., Auerbach, A., Persichetti, F., and MacDonald, M. E. Huntington: An iron-regulated protein essential for normal nuclear and perinuclear organelles. *Human Molecular Genetics*, 2000, **9**, 2789–2797.
- Himmelsbach, C. K. Can the euphoric analgesic and physical dependence effects of drugs be separated? With reference to physical dependence. *Federation Proceedings*, 1943, **2**, 201–203.
- Hines, M., Allen, L. S., and Gorski, R. A. Sex differences in subregions of the medial nucleus of the amygdala and the bed nucleus of the stria terminalis of the rat. *Brain Research*, 1992, **579**, 321–326.
- Hinjo, S., Hirano, C., Murase, S., Kaneko, T., Sugiyama, T., Ohtaka, K., Aoyama, T., Takei, Y., Inoko, K., and Wakabayashi, S. Obsessive-compulsive symptoms in childhood and adolescence. *Acta Psychiatrica Scandinavica*, 1989, **80**, 83–91.
- Hirsch, J. The search for new ways to treat obesity. *Proceedings of the National Academy of Science, USA*, 2002, **99**, 9096–9097.
- Hobson, J. A. *The Dreaming Brain*. New York: Basic Books, 1988.
- Hock, C., Konietzko, U., Streffer, J. R., Tracy, J., Signorelli, A., Müller-Tillmans, B., Lemke, U., Henke, K., Moritz, E., Garcia, E., Wollmer, M. A., Umbricht, D., de Quervain, D. J. F., Hofmann, M., Maddalena, A., Passotiropoulos, A., and Nitsch, R. M. Antibodies against β-amyloid slow cognitive decline in Alzheimer's disease. *Neuron*, 2003, **38**, 547–554.
- Hodge, C. W., Haraguchi, M., Erickson, H., and Samson, H. H. Ventral tegmental microinjections of quinpirole decrease ethanol and sucrose-reinforced responding. *Alcohol: Clinical and Experimental Research*, 1993, **17**, 370–375.
- Hoebel, B. G., Monaco, A. P., Hernandez, L., Aulisi, E. F., Stanley, B. G., and Lenard, L. Self-injection of amphetamine directly into the brain. *Psychopharmacology*, 1983, **81**, 158–163.
- Hohman, G. W. Some effects of spinal cord lesions on experienced emotional feelings. *Psychophysiology*, 1966, **3**, 143–156.
- Holden, C. The violence of the lambs. *Science*, 2000, **289**, 580–581.
- Hollander, E., DelGiudice-Asch, G., Simon, L., Schmeidler, J., Cartwright, C., DeCarla, C. M., Kwon, J., Cunningham-Rundles, C., Chapman, F., and Zabriskie, J. B. B lymphocyte antigen D8/17 and repetitive behaviors in autism. *American Journal of Psychiatry*, 1999, **156**, 317–320.
- Hollander, E., Schiffman, E., Cohen, B., Rivera-Stein, M. A., Rosen, W., Gorman, J. M., Fyer, A. J., Papp, L., and Liebowitz, M. R. Signs of central nervous system dysfunction in obsessive-compulsive disorder. *Archives of General Psychiatry*, 1990, **47**, 27–32.
- Hollister, J. M., Laing, P., and Mednick, S. A. Rhesus incompatibility as a risk factor for schizophrenia in male adults. *Archives of General Psychiatry*, 1996, **53**, 19–24.
- Honda, T., and Semba, K. Serotonergic synaptic input to cholinergic neurons in the rat

- mesopontine tegmentum. *Brain Research*, 1994, 647, 299–306.
- Hopf, H. C., Mueller-Forell, W., and Hopf, N. J. Localization of emotional and volitional facial paresis. *Neurology*, 1992, 42, 1918–1923.
- Horne, J. A. A review of the biological effects of total sleep deprivation in man. *Biological Psychology*, 1978, 7, 55–102.
- Horne, J. A., and Minard, A. Sleep and sleepiness following a behaviourally "active" day. *Ergonomics*, 1985, 28, 567–575.
- Horner, P. H., and Gage, F. H. Regenerating the damaged central nervous system. *Nature*, 2000, 407, 963–970.
- Horowitz, R. M., and Gentili, B. Dihydrochalcone sweeteners. In *Symposium: Sweeteners*, edited by G. E. Inglett. Westport, Conn.: Avi Publishing, 1974.
- Horton, J. C., and Hubel, D. H. Cytochrome oxidase stain preferentially labels intersection of ocular dominance and vertical orientation columns in macaque striate cortex. *Society for Neuroscience Abstracts*, 1980, 6, 315.
- Houpt, T. A., Boulos, Z., and Moore-Ede, M. C. MidnightSun: Software for determining light exposure and phase-shifting schedules during global travel. *Physiology and Behavior*, 1996, 59, 561–568.
- Hubel, D. H., and Wiesel, T. N. Brain mechanisms of vision. *Scientific American*, 1979, 241, 150–162.
- Hubel, D. H., and Wiesel, T. N. Functional architecture of macaque monkey visual cortex. *Proceedings of the Royal Society of London*, 1977, 198, 1–59.
- Hublin, C. Narcolepsy: Current drug-treatment options. *CNS Drugs*, 1996, 5, 426–436.
- Hudspeth, A. J., and Gillespie, P. G. Pulling springs to tune transduction: Adaptation by hair cells. *Neuron*, 1994, 12, 1–9.
- Hughes, J., Smith, T. W., Kosterlitz, H. W., Fothergill, L. A., Morgan, B. A., and Moris, H. R. Identification of two related pentapeptides from the brain with potent opiate agonist activity. *Nature*, 1975, 258, 577–579.
- Hulshoff Pol, H. E., Schnack, H. G., Bertens, M. G. B. C., van Haren, N. E. M., Staal, W. G., Baaré, W. F. C., and Kahn, R. S. Volume changes in gray matter in patients with schizophrenia. *American Journal of Psychiatry*, 2002, 159, 244–250.
- Humphrey, A. L., and Hendrickson, A. E. Radial zones of high metabolic activity in squirrel monkey striate cortex. *Society for Neuroscience Abstracts*, 1980, 6, 315.
- Humphreys, G. W., Donnelly, N., and Ridderoch, M. J. Expression is computed separately from facial identity, and it is computed separately for moving and static faces: Neuropsychological evidence. *Neuropsychologia*, 1993, 31, 173–181.
- Hungs, M., and Mignot, E. Hypocretin/oxytocin, sleep and narcolepsy. *Bioessays*, 2001, 23, 397–408.
- Hunt, D. M., Dulai, K. S., Cowing, J. A., Julliot, C., Mollon, J. D., Bowmaker, J. K., Li, W.-H., and Hewett-Emmett, D. Molecular evolution of trichromacy in primates. *Vision Research*, 1998, 38, 3299–3306.
- Huttunen, M. O., and Niskanen, P. Prenatal loss of father and psychiatric disorders. *Archives of General Psychiatry*, 1978, 35, 429–431.
- Hyman, S. E., and Malenka, R. C. Addiction and the brain: The neurobiology of compulsion and its persistence. *Nature Reviews: Neuroscience*, 2001, 2, 695–703.
- Ibuka, N., and Kawamura, H. Loss of circadian rhythm in sleep-wakefulness cycle in the rat by suprachiasmatic nucleus lesions. *Brain Research*, 1975, 96, 76–81.
- Iggo, A., and Andres, K. H. Morphology of cutaneous receptors. *Annual Review of Neuroscience*, 1982, 5, 1–32.
- Iijima, M., Arisaka, O., Minamoto, F., and Arai, Y. Sex differences in children's free drawings: A study on girls with congenital adrenal hyperplasia. *Hormones and Behavior*, 2001, 20, 99–104.
- Imaki, T., Shibasaki, T., Hotta, M., and Demura, H. Early induction of c-fos precedes increased expression of corticotropin-releasing factor messenger ribonucleic acid in the paraventricular nucleus after immobilization stress. *Endocrinology*, 1992, 131, 240–246.
- Imperato, A., and Di Chiara, G. Preferential stimulation of dopamine-release in the accumbens of freely moving rats by ethanol. *Journal of Pharmacology and Experimental Therapeutics*, 1986, 239, 219–228.
- Imperato, A., Scrocco, M. G., Bacchi, S., and Angelucci, L. NMDA receptors and in vivo dopamine release in the nucleus accumbens and caudatus. *European Journal of Pharmacology*, 1990, 187, 555–556.
- Ingelfinger, F. J. The late effects of total and subtotal gastrectomy. *New England Journal of Medicine*, 1944, 231, 321–327.
- Inoue, M., Koyanagi, T., Nakahara, H., Hara, K., Hori, E., and Nakano, H. Functional development of human eye movement in utero assessed quantitatively with real time ultrasound. *American Journal of Obstetrics and Gynecology*, 1986, 155, 170–174.
- Isenberg, N., Silbersweig, D., Engelien, A., Emmerich, S., Malavade, K., Beattie, B., Leon, A. C., and Stern, E. Linguistic threat activates the human amygdala. *Proceedings of the National Academy of Sciences, USA*, 1999, 96, 10456–10459.
- Iwata, M. Kanji versus Kana: Neuropsychological correlates of the Japanese writing system. *Trends in Neurosciences*, 1984, 7, 290–293.
- Izard, C. E. *The Face of Emotion*. New York: Appleton-Century-Crofts, 1971.
- Jackson, M. E., Frost, A. S., and Moghaddam, B. Stimulation of prefrontal cortex at physiologically relevant frequencies inhibits dopamine release in the nucleus accumbens. *Journal of Neurochemistry*, 2001, 78, 920–923.
- Jacob, S., and McClintock, M. K. Psychological state and mood effects of steroid chemosignals in women and men. *Hormones and Behavior*, 2000, 37, 57–78.
- Jacobs, B. L., and McGinty, D. J. Participation of the amygdala in complex stimulus recognition and behavioral inhibition: Evidence from unit studies. *Brain Research*, 1972, 36, 431–436.
- Jacobs, G. H. Primate photopigments and primate color vision. *Proceedings of the National Academy of Sciences, USA*, 1996, 93, 577–581.
- James, W. What is an emotion? *Mind*, 1884, 9, 188–205.
- Jaramillo, F. Signal transduction in hair cells and its regulation by calcium. *Neuron*, 1995, 15, 1227–1230.
- Jasper, J. H., and Tessier, J. Acetylcholine liberation from cerebral cortex during paradoxical (REM) sleep. *Science*, 1969, 172, 601–602.
- Javitt, D. C., and Zukin, S. R. Recent advances in the phencyclidine model of schizophrenia. *American Journal of Psychiatry*, 1991, 148, 1301–1308.
- Jaynes, J. The problem of animate motion in the seventeenth century. *Journal of the History of Ideas*, 1970, 6, 219–234.
- Jensen, T., Genefke, I., and Hyldebrandt, N. Cerebral atrophy in young torture victims. *New England Journal of Medicine*, 1982, 307, 1341.
- Jentsch, J. D., Redmond, D. E., Elsworth, J. D., Taylor, J. R., Youngren, K. D., and Roth, R. H. Enduring cognitive deficits and cortical dopamine dysfunction in monkeys after long-term administration of phencyclidine. *Science*, 1997, 277, 953–955.
- Jentsch, J. D., Tran, A., Taylor, J. R., and Roth, R. H. Prefrontal cortical involvement in phencyclidine-induced activation of the mesolimbic dopamine system: Behavioral and neurochemical evidence. *Psychopharmacology*, 1998, 138, 89–95.
- Jeste, D. V., Del Carmen, R., Lohr, J. B., and Wyatt, R. J. Did schizophrenia exist before the eighteenth century? *Comprehensive Psychiatry*, 1985, 26, 493–503.
- Jewett, D. C., Cleary, J., Levine, A. S., Schaaf, D. W., and Thompson, T. Effects of neuropeptide Y on food-reinforced behavior in sated rats. *Pharmacology, Biochemistry, and Behavior*, 1992, 42, 207–212.
- Jiang, C. L., and Hunt, J. N. The relation between freely chosen meals and body habitus. *American Journal of Clinical Nutrition*, 1983, 38, 32–40.
- Johanson, A., Gustafson, L., Passant, U., Risberg, J., Smith, G., Warkentin, S., and Tucker, D. Brain function in spider phobia. *Psychiatry Research: Neuroimaging Section*, 1998, 84, 101–111.
- Johansson, G. Visual perception of biological motion and a model for its analysis. *Perception and Psychophysics*, 1973, 14, 201–211.
- Johnson, A. K., and Edwards, G. L. The neuroendocrinology of thirst: Afferent signaling and mechanisms of central integration. *Current Topics in Neuroendocrinology*, 1990, 10, 149–190.
- Johnson, M. K., Kim, J. K., and Risse, G. Do alcoholic Korsakoff's syndrome patients acquire affective reactions? *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 1985, 11, 22–36.
- Jones, B. E. Influence of the brainstem reticular formation, including intrinsic monoaminergic and cholinergic neurons, on forebrain mechanisms of sleep and waking. In *The Diencephalon and Sleep*, edited by M. Mancia and G. Marini. New York: Raven Press, 1990.
- Jones, B. E., and Beaudet, A. Distribution of acetylcholine and catecholamine neurons in the cat brain stem studied by choline acetyltransferase and tyrosine hydroxylase immunohistochemistry. *Journal of Comparative Neurology*, 1987, 261, 15–32.
- Jones, D. T., and Reed, R. R. G_{olf} : An olfactory neuron specific-G protein involved in odorant signal transduction. *Science*, 1989, 244, 790–795.
- Jones, M. B., and Szatmari, P. Stoppage rules and genetic studies of autism. *Journal of Autism and Developmental Disorders*, 1988, 18, 31–40.
- Jones, S. S., Collins, K., and Hong, H.-W. An audience effect on smile production in 10-

- month-old infants. *Psychological Science*, 1991, 2, 45–49.
- Jope, R. S., Song, L., Li, P. P., Young, L. T., Kish, S. J., Pacheco, M. A., and Warsh, J. J. The phosphoinositide signal transduction system is impaired in bipolar affective disorder brain. *Journal of Neurochemistry*, 1996, 66, 2402–2409.
- Jornales, V. E., Jakob, M., Zamani, A., and Vaina, L. M. Deficits on complex motion perception, spatial discrimination and eye-movements in a patient with bilateral occipital-parietal lesions. *Investigative Ophthalmology and Visual Science*, 1997, 38, S72.
- Jouvet, M. The role of monoamines and acetylcholine-containing neurons in the regulation of the sleep-waking cycle. *Ergebnisse der Physiologie*, 1972, 64, 166–307.
- Kahler, A., Geary, N., Eckel, L. A., Campfield, L. A., Smith, F. J., and Langhans, W. Chronic administration of OB protein decreases food intake by selectively reducing meal size in male rats. *American Journal of Physiology*, 1998, 275, R180–R185.
- Kales, A., Scharf, M. B., Kales, J. D., and Soldatos, C. R. Rebound insomnia: A potential hazard following withdrawal of certain benzodiazepines. *Journal of the American Medical Association*, 1979, 241, 1692–1695.
- Kalin, N. H., Sherman, J. E., and Takahashi, L. K. Antagonism of endogenous CRG systems attenuates stress-induced freezing behavior in rats. *Brain Research*, 1988, 457, 130–135.
- Kanner, L. Autistic disturbances of affective contact. *The Nervous Child*, 1943, 2, 217–250.
- Kanwisher, N., McDermott, J., and Chun, M. M. The fusiform face area: A module in human extrastriate cortex specialized for face perception. *Journal of Neuroscience*, 1997, 17, 4302–4311.
- Kapp, B. S., Fryssinger, R. C., Gallagher, M., and Haselton, J. R. Amygdala central nucleus lesions: Effect on heart rate conditioning in the rabbit. *Physiology and Behavior*, 1979, 23, 1109–1117.
- Kapp, B. S., Gallagher, M., Applegate, C. D., and Fryssinger, R. C. The amygdala central nucleus: Contributions to conditioned cardiovascular responding during aversive Pavlovian conditioning in the rabbit. In *Conditioning: Representation of Involved Neural Functions*, edited by C. D. Woody. New York: Plenum Press, 1982.
- Karacan, I., Salis, P. J., and Williams, R. L. The role of the sleep laboratory in diagnosis and treatment of impotence. In *Sleep Disorders: Diagnosis and Treatment*, edited by R. J. Williams and I. Karacan. New York: John Wiley & Sons, 1978.
- Karacan, I., Williams, R. L., Finley, W. W., and Hursch, C. J. The effects of naps on nocturnal sleep: Influence on the need for stage 1 REM and stage 4 sleep. *Biological Psychiatry*, 1970, 2, 391–399.
- Karlson, P., and Luscher, M. "Pheromones": A new term for a class of biologically active substances. *Nature*, 1959, 183, 55–56.
- Kartsounis, L. D., Rudge, P., and Stevens, J. M. Bilateral lesions of CA1 and CA2 fields of the hippocampus are sufficient to cause a severe amnesia syndrome in humans. *Journal of Neurology, Neurosurgery and Psychiatry*, 1995, 59, 95–98.
- Kattler, H., Dijk, D. J., and Borbély, A. A. Effect of unilateral somatosensory stimulation prior to sleep on the sleep EEG in humans. *Journal of Sleep Research*, 1994, 3, 159–164.
- Kawamura, M., Hirayama, K., and Yamamoto, H. Different interhemispheric transfer of kanji and kana writing evidenced by a case with left unilateral agraphia without apraxia. *Brain*, 1989, 112, 1011–1018.
- Kawauchi, H., Kawazoe, I., Tsubokawa, M., Kishida, M., and Baker, B. I. Characterization of melanin-concentrating hormone in chum salmon pituitaries. *Nature*, 1983, 305, 321–323.
- Kayama, Y., Ohta, M., and Jodo, E. Firing of "possibly" cholinergic neurons in the rat lateroventral tegmental nucleus during sleep and wakefulness. *Brain Research*, 1992, 569, 210–220.
- Kaye, W. H. Neuropeptide abnormalities in anorexia nervosa. *Psychiatry Research*, 1996, 62, 65–74.
- Kaye, W. H., Berrettini, W., Gwirtsman, H., and George, D. T. Altered cerebrospinal fluid neuropeptide Y and peptide YY immunoreactivity in anorexia and bulimia nervosa. *Archives of General Psychiatry*, 1990, 47, 548–556.
- Kaye, W. H., Nagata, T., Weltzin, T. E., Hsu, G., Sokol, M. S., McConaha, C., Plotnicov, K. H., Weise, J., and Deep, D. Double-blind placebo-controlled administration of fluoxetine in restricting- and restricting-purging-type anorexia nervosa. *Biological Psychiatry*, 2001, 49, 644–652.
- Keller, S. E., Weiss, J. M., Schleifer, S. J., Miller, N. E., and Stein, M. Stress-induced suppression of immunity in adrenalectomized rats. *Science*, 1983, 221, 1301–1304.
- Kelso, S. R., Ganong, A. H., and Brown, T. H. Hebbian synapses in hippocampus. *Proceedings of the National Academy of Sciences, USA*, 1986, 83, 5326–5330.
- Kendell, R. E., and Adams, W. Unexplained fluctuations in the risk for schizophrenia by month and year of birth. *British Journal of Psychiatry*, 1991, 158, 758–763.
- Kennard, C., Lawden, M., Morland, A. B., and Ruddock, K. H. Colour identification and colour constancy are impaired in a patient with incomplete achromatopsia associated with prestriate cortical lesions. *Proceedings of the Royal Society of London (B)*, 1995, 260, 169–175.
- Kertesz, A. Anatomy of jargon. In *Jargonaphasia*, edited by J. Brown. New York: Academic Press, 1981.
- Kestler, L. P., Walker, E., and Vega, E. M. Dopamine receptors in the brains of schizophrenia patients: A meta-analysis of the findings. *Behavioral Pharmacology*, 2001, 12, 355–371.
- Kety, S. S., Rosenthal, D., Wender, P. H., and Schulsinger, K. F. The types and prevalence of mental illness in the biological and adoptive families of adopted schizophrenics. In *The Transmission of Schizophrenia*, edited by D. Rosenthal and S. S. Kety. New York: Pergamon Press, 1968.
- Kety, S. S., Wender, P. H., Jacobsen, B., Ingraham, L. J., Jansson, L., Faber, B., and Kinney, D. K. Mental illness in the biological and adoptive relatives of schizophrenic adoptees: Replication of the Copenhagen Study in the rest of Denmark. *Archives of General Psychiatry*, 1994, 51, 442–455.
- Khanna, S., and Channabasavanna, S. Toward a classification of compulsions in obsessive compulsive neurosis. *Psychopathology*, 1987, 20, 23–28.
- Khateb, A., Fort, P., Pegna, A., Jones, B. E., and Muhlethaler, M. Cholinergic nucleus basalis neurons are excited by histamine in vitro. *Neuroscience*, 1995, 69, 495–506.
- Kiang, N. Y.-S. *Discharge Patterns of Single Fibers in the Cat's Auditory Nerve*. Cambridge, Mass.: MIT Press, 1965.
- Kiecolt-Glaser, J. K., Marucha, P. T., Malarkey, W. B., Mercado, A. M., and Glaser, R. Slowing of wound healing by psychological stress. *Lancet*, 1995, 346, 1194–1196.
- Kihlstrom, J. F. Hypnosis. *Annual Review of Psychology*, 1985, 36, 385–418.
- King, G. A., Fitzhugh, E. C., Bassett, D. R., McLaughlin, J. E., Strath, S. J., Swartz, A. M., and Thompson, D. L. Relationship of leisure-time physical activity and occupational activity to the prevalence of obesity. *International Journal of Obesity*, 2001, 25, 606–612.
- Kingston, K., Szmułek, G., Andrewes, D., Tress, B., and Desmond, P. Neuropsychological and structural brain changes in anorexia nervosa before and after refeeding. *Psychological Medicine*, 1996, 26, 15–28.
- Kinnamon, S. C., and Cummings, T. A. Chemosensory transduction mechanisms in taste. *Annual Review of Physiology*, 1992, 54, 715–731.
- Kinnamon, S. C., Dionne, V. E., and Beam, K. G. Apical localization of K⁺ channels in taste cells provides the basis for sour taste transduction. *Proceedings of the National Academy of Sciences, USA*, 1988, 85, 7023–7027.
- Kinney, D. K., Yurgelun-Todd, D. A., Levy, D. L., Medoff, D., Lajonchere, C. M., and Radford-Paregol, M. Obstetrical complications in patients with bipolar disorder and their siblings. *Psychiatry Research*, 1993, 48, 47–56.
- Kinney, D. K., Yurgelun-Todd, D. A., Tohen, M., and Tramer, S. Pre- and perinatal complications and risk for bipolar disorder: A retrospective study. *Journal of Affective Disorders*, 1998, 50, 117–124.
- Kinon, B. J., and Lieberman, J. A. Mechanisms of action of atypical antipsychotic drugs: A critical analysis. *Psychopharmacology*, 1996, 124, 2–34.
- Kirkpatrick, B., Kim, J. W., and Insel, T. R. Limbic system fMRI expression associated with paternal behavior. *Brain Research*, 1994, 658, 112–118.
- Kitada, T., Asakawa, S., Hattori, N., Matsumine, H., Yamamura, Y., Minoshima, S., Yokochi, M., Mizuno, Y., and Shimizu, N. Mutations in the parkin gene cause autosomal recessive juvenile parkinsonism. *Nature*, 1998, 392, 605–608.
- Klein, E., Kreinin, I., Chistyakov, A., Koren, D., Mecz, L., Marmur, S., Ben-Shachar, D., and Feinsod, M. Therapeutic efficacy of right prefrontal slow repetitive transcranial magnetic stimulation in major depression: A double-blind controlled study. *Archives of General Psychiatry*, 1999, 56, 315–320.
- Kleitman, N. Basic rest-activity cycle—22 years later. *Sleep*, 1982, 4, 311–317.
- Kleitman, N. The nature of dreaming. In *The Nature of Sleep*, edited by G. E. W. Wolstenholme and M. O'Connor. London: J. & A. Churchill, 1961.
- Knebelmann, B., Boussin, L., Guerrier, D., Legeai, L., Kahn, A., Josso, N., and Picard, J.-Y. Anti-Müllerian hormone Bruxelles: A nonsense mutation associated with the per-

- sistent Muellerian duct syndrome. *Proceedings of the National Academy of Sciences, USA*, 1991, 88, 3767–3771.
- Knecht, S., Drager, B., Deppe, M., Bobe, L., Lohmann, H., Floel, A., Ringelstein, R. B., and Henningsen, H. Handedness and hemispheric language dominance in healthy humans. *Brain*, 2000, 123, 2512–2518.
- Knutson, B., Adams, C. M., Fong, G. W., and Hommer, D. Anticipation of increasing monetary reward selectively recruits nucleus accumbens. *Journal of Neuroscience*, 2001, 21, RC159 (1–5).
- Kojima, M., Hosoda, H., Date, Y., Nakazato, M., Matsuo, H., and Kangawa, K. Ghrelin is a growth-hormone-releasing acylated peptide from stomach. *Nature*, 1999, 402, 656–660.
- Komatsu, H. Mechanisms of central color vision. *Current Opinion in Neurobiology*, 1998, 8, 503–508.
- Komisaruk, B. R., and Larsson, K. Suppression of a spinal and a cranial nerve reflex by vaginal or rectal probing in rats. *Brain Research*, 1971, 55, 231–235.
- Komisaruk, B. R., and Steinman, J. L. Genital stimulation as a trigger for neuroendocrine and behavioral control of reproduction. *Annals of the New York Academy of Sciences*, 1987, 474, 64–75.
- Koob, G. F., Thatcher-Britton, K., Britton, D., Roberts, D. C. S., and Bloom, F. E. Destruction of the locus coeruleus or the dorsal NE bundle does not alter the release of punished responding by ethanol and chlorodiazepoxide. *Physiology and Behavior*, 1984, 33, 479–485.
- Koopman, P. Gonad development: Signals for sex. *Current Biology*, 2001, 11, R481–R483.
- Koroshetz, W. J., and Moskowitz, M. A. Emerging treatments for stroke in humans. *Trends in Pharmacological Sciences*, 1996, 17, 227–233.
- Kortegaard, L. S., Hoerder, K., Joergensen, J., Gillberg, C., and Kyvik, K. O. A preliminary population-based twin study of self-reported eating disorder. *Psychological Medicine*, 2001, 31, 361–365.
- Kosten, T. A., Miserendino, M. J. D., and Kehoe, P. Enhanced acquisition of cocaine self-administration in adult rats with neonatal isolation stress experience. *Brain Research*, 2000, 875, 44–50.
- Kourtzi, A., and Kanwisher, N. Activation in human MT/MST by static images with implied motion. *Journal of Cognitive Neuroscience*, 2000, 12, 48–55.
- Kovács, G., Vogels, R., and Orban, G. A. Selectivity of macaque inferior temporal neurons for partially occluded shapes. *Journal of Neuroscience*, 1995, 15, 1984–1997.
- Koylu, E. O., Couceyro, P. R., Lambert, P. D., and Kuhar, M. J. Cocaine- and amphetamine-regulated transcript peptide immunohistochemical localization in the rat brain. *Journal of Comparative Neurology*, 1998, 391, 115–132.
- Kozlowski, L. T., and Cutting, J. E. Recognizing the sex of a walker from a dynamic point-light display. *Perception and Psychophysics*, 1977, 21, 575–580.
- Kraut, R. E., and Johnston, R. Social and emotional messages of smiling: An ethological approach. *Journal of Personality and Social Psychology*, 1979, 37, 1539–1553.
- Kress, M., and Zeilhofer, H. U. Capsaicin, protons and heat: New excitement about nociceptors. *Trends in Pharmacological Science*, 1999, 20, 112–118.
- Kristensen, P., Judge, M. E., Thim, L., Ribel, U., Christjansen, K. N., Wulff, B. S., Clausen, J. T., Jensen, P. B., Madsen, O. D., Vrang, N., Larsen, P. J., and Hastrup, S. Hypothalamic CART is a new anorectic peptide regulated by leptin. *Nature*, 1998, 393, 72–76.
- Kuffler, S. W. Discharge patterns and functional organization of mammalian retina. *Journal of Neurophysiology*, 1953, 16, 37–68.
- Kuffler, S. W. Neurons in the retina: Organization, inhibition and excitation problems. *Cold Spring Harbor Symposium on Quantitative Biology*, 1952, 17, 281–292.
- Kunos, G., and Batkai, S. Novel physiologic functions of endocannabinoids as revealed through the use of mutant mice. *Neurochemical Research*, 2001, 26, 1015–1021.
- Kupfer, D. J. REM latency: A psychobiologic marker for primary depressive disease. *Biological Psychiatry*, 1976, 11, 159–174.
- Kupfer, D. J., Ehlers, C. L., Frank, E., Grochocinski, V. J., McEachran, A. B., and Buhari, A. Persistent effects of antidepressants: EEG sleep studies in depressed patients during maintenance treatment. *Biological Psychiatry*, 1994, 35, 781–793.
- Kurihara, K. Recent progress in taste receptor mechanisms. In *Umami: A Basic Taste*, edited by Y. Kawamura and M. R. Kare. New York: Dekker, 1987.
- Kuriki, S., Mori, T., and Hirata, Y. Motor planning center for speech articulation in the normal human brain. *Neuroreport*, 1999, 10, 765–769.
- LaBar, K. S., LeDoux, J. E., Spencer, D. D., and Phelps, E. A. Impaired fear conditioning following unilateral temporal lobectomy in humans. *Journal of Neuroscience*, 1995, 15, 6846–6855.
- Lahti, A. C., Weiler, M. A., Michaelidis, T., Parwani, A., and Tamminga, C. A. Effects of ketamine in normal and schizophrenic volunteers. *Neuropsychopharmacology*, 2001, 25, 455–467.
- Lai, E. C., Jankovic, J., Krauss, J. K., Ondo, W. G., and Grossman, R. G. Long-term efficacy of posteroventral pallidotomy in the treatment of Parkinson's disease. *Neurology*, 2000, 55, 1218–1222.
- Laitinen, L. V., Bergenheim, A. T., and Hariz, M. I. Leksell's posteroventral pallidotomy in the treatment of Parkinson's disease. *Journal of Neurosurgery*, 1992, 76, 53–61.
- Lange, C. G. *Über Gemüthsbewegungen*. Leipzig, Germany: T. Thomas, 1887.
- Langston, J. W., and Ballard, P. Parkinsonism induced by 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP): Implications for treatment and the pathogenesis of Parkinson's disease. *Canadian Journal of Neurological Science*, 1984, 11(1 Suppl), 160–165.
- Langston, J. W., Ballard, P., Tetrud, J., and Irwin, I. Chronic parkinsonism in humans due to a product of meperidine-analog synthesis. *Science*, 1983, 219, 979–980.
- Langston, J. W., Irwin, I., Langston, E. B., and Forno, L. S. Pargyline prevents MPTP-induced parkinsonism in primates. *Science*, 1984, 225, 1480–1482.
- Laruelle, M., Abi-Dargham, A., Van Dyck, C. H., Gil, R., D'Souza, C. D., Erdos, J., McCance, E., Rosenblatt, W., Fingado, C., Zoghbi, S. S., Baldwin, R. M., Seibyl, J. P., Krystal, J. H., Charney, D. S., and Innis, R. B. Single photon emission computerized tomography imaging of amphetamine-induced dopamine release in drug-free schizophrenic subjects. *Proceedings of the National Academy of Sciences, USA*, 1996, 93, 9235–9240.
- Laschet, U. Antiandrogen in the treatment of sex offenders: Mode of action and therapeutic outcome. In *Contemporary Sexual Behavior: Critical Issues in the 1970's*, edited by J. Zubin and J. Money. Baltimore: Johns Hopkins University Press, 1973.
- Lavond, D. G., Kim, J. J., and Thompson, R. F. Mammalian brain substrates of aversive classical conditioning. *Annual Review of Psychology*, 1993, 44, 317–342.
- LeDoux, J. E. Brain mechanisms of emotion and emotional learning. *Current Opinion in Neurobiology*, 1992, 2, 191–197.
- LeDoux, J. E. Emotion: Clues from the brain. *Annual Review of Psychology*, 1995, 46, 209–235.
- LeDoux, J. E., Iwata, J., Cicchetti, P., and Reis, D. J. Different projections of the central amygdaloid nucleus mediate autonomic and behavioral correlates of conditioned fear. *Journal of Neuroscience*, 1988, 8, 2517–2529.
- LeDoux, J. E., Sakaguchi, A., and Reis, D. J. Subcortical efferent projections of the medial geniculate nucleus mediate emotional responses conditioned to acoustic stimuli. *Journal of Neuroscience*, 1984, 4, 683–698.
- Lehman, M. N., and Winans, S. S. Vomeronasal and olfactory pathways to the amygdala controlling male hamster sexual behavior: Autoradiographic and behavioral analyses. *Brain Research*, 1982, 240, 27–41.
- Lehman, M. N., Silver, R., Gladstone, W. R., Kahn, R. M., Gibson, M., and Bittman, E. L. Circadian rhythmicity restored by neural transplant: Immunocytochemical characterization with the host brain. *Journal of Neuroscience*, 1987, 7, 1626–1638.
- Leibenluft, E., and Wehr, T. A. Is sleep deprivation useful in the treatment of depression? *American Journal of Psychiatry*, 1992, 149, 159–168.
- Leibowitz, S. F., Weiss, G. F., and Suh, J. S. Medial hypothalamic nuclei mediate serotonin's inhibitory effect on feeding behavior. *Pharmacology, Biochemistry, and Behavior*, 1990, 37, 735–742.
- Leonard, C. M., Rolls, E. T., Wilson, F. A. W., and Baylis, G. C. Neurons in the amygdala of the monkey with responses selective for faces. *Behavioral Brain Research*, 1985, 15, 159–176.
- Leonard, C. S., Kerman, I., Blaha, G., Taveras, E., and Taylor, B. Interdigitations of nitric oxide synthase-, tyrosine hydroxylase-, and serotonin-containing neurons in and around the laterodorsal and pedunculopontine tegmental nuclei of the guinea pig. *Journal of Comparative Neurology*, 1995, 362, 411–432.
- Leonard, H. L., Lenane, M. C., Swedo, S. E., Rettew, D. C., Gershon, E. S., and Rapoport, J. L. Tics and Tourette's disorder: a 2- to 7-year follow-up of 54 obsessive-compulsive children. *American Journal of Psychiatry*, 1992a, 149, 1244–1251.
- Leonard, H. L., Swedo, S. E., Rapoport, J. L., Koby, E. V., Lenane, M. C., Cheslow, D. L., and Hamburger, S. D. Treatment of obsessive-compulsive disorder with clomipramine and desipramine in children and adolescents: A double-blind crossover comparison. *Archives of General Psychiatry*, 1989, 46, 1088–1092.

- Leshner, A. I. Molecular mechanisms of cocaine addiction. *The New England Journal of Medicine*, 1996, 335, 128–129.
- Lesser, R. Selective preservation of oral spelling without semantics in a case of multi-infarct dementia. *Cortex*, 1989, 25, 239–250.
- LeVay, S. A difference in hypothalamic structure between heterosexual and homosexual men. *Science*, 1991, 253, 1034–1037.
- Levine, J. D., Gordon, N. C., and Fields, H. L. The role of endorphins in placebo analgesia. In *Advances in Pain Research and Therapy*, Vol. 3, edited by J. J. Bonica, J. C. Liebeskind, and D. Albe-Fessard. New York: Raven Press, 1979.
- Levy, F., Hay, D. A., McStephen, M., Wood, C., and Waldman, I. Attention-deficit hyperactivity disorder: a category or a continuum? Genetic analysis of a large-scale twin study. *Journal of the American Academy of Child and Adolescent Psychiatry*, 1997, 36, 737–744.
- Levy, R. M., and Bredesen, D. E. Controversies in HIV-related central nervous system disease: Neuropsychological aspects of HIV-1 infection. In *AIDS Clinical Review 1989*, edited by P. Volberding, and M. A. Jacobson. New York: Marcel Dekker, 1989.
- Lewin, R. Big first scored with nerve diseases. *Science*, 1989, 245, 467–468.
- Lewis, D. A., and Smith, R. E. Steroid-induced psychiatric syndromes. A report of 14 cases and a review of the literature. *Journal of the Affective Disorders*, 1983, 5, 19–32.
- Lewy, A. J., Bauer, V. K., Cutler, N. L., Sack, R. L., Ahmed, S., Thomas, K. H., Blood, M. L., Latham Jackson, J. M. Morning vs evening light treatment of patients with winter depression. *Archives of General Psychiatry*, 1998, 55, 890–896.
- Li, B.-H., and Rowland, N. E. Effects of vagotomy on cholecystokinin- and dexamfetamine-induced fos-like immunoreactivity in the rat brain. *Brain Research Bulletin*, 1995, 37, 589–593.
- Li, B.-H., Spector, A. C., and Rowland, N. E. Reversal of dexamfetamine-induced anorexia and c-Fos/c-Jun expression by lesion in the lateral parabrachial nucleus. *Brain Research*, 1994, 640, 255–267.
- Li, J. Y., Finniss, S., Yang, Y. K., Zeng, Q., Qu, S. Y., Barsh, G., Dickinson, C., and Gantz, I. Agouti-related protein-like immunoreactivity: characterization of release from hypothalamic tissue and presence in serum. *Endocrinology*, 2000, 141, 1942–1950.
- Lidberg, L., Asberg, M., and Sundqvist-Stensman, U. B. 5-Hydroxyindoleacetic acid levels in attempted suicides who have killed their children. *Lancet*, 1984, 2, 928.
- Lidberg, L., Tuck, J. R., Asberg, M., Scalia-Tomba, G. P., and Bertilsson, L. Homicide, suicide and CSF 5-HIAA. *Acta Psychiatrica Scandinavica*, 1985, 71, 230–236.
- Lin, J. S., Sakai, K., and Jouvet, M. Evidence for histaminergic arousal mechanisms in the hypothalamus of cat. *Neuropharmacology*, 1998, 27, 111–122.
- Lin, L., Faraco, J., Li, R., Kadotani, H., Rogers, W., Lin, X., Qiu, X., de Jong, P. J., Nishino, S., and Mignot, E. The sleep disorder narcolepsy is caused by a mutation in the hypocretin (orexin) receptor 2. *Cell*, 1999, 98, 365–376.
- Lindemann, B. Taste reception. *Physiological Reviews*, 1996, 76, 719–766.
- Links, J. M., Zubieta, J. K., Meltzer, C. G., Stumpf, M. J., and Frist, J. J. Influence of spatially heterogenous background activity on “hot object” quantitation in brain emission computed tomography. *Journal of Computer Assisted Tomography*, 1996, 20, 680–687.
- Liotti, M., Mayberg, H. S., McGinnis, S., Branigan, S. L., and Jerabek, P. Unmasking disease-specific cerebral blood flow abnormalities: Mood challenge in patients with remitted unipolar depression. *American Journal of Psychiatry*, 2002, 159, 1830–1840.
- Lipton, S. A. Neuropathogenesis of acquired immunodeficiency syndrome dementia. *Current Opinion in Neurology*, 1997, 10, 247–253.
- Lipton, S. A. Similarity of neuronal cell injury and death in AIDS dementia and focal cerebral ischemia: Potential treatment with NMDA open-channel blockers and nitric oxide-related species. *Brain Pathology*, 1996, 6, 507–514.
- Lipton, S. A., Dreyer, E. B., Kaiser, P. K., and Offermann, J. T. HIV-1 coat protein neurotoxicity prevented by calcium channel antagonists. *Science*, 1990, 248, 364–367.
- Lisk, R. D., Pretlow, R. A., and Friedman, S. Hormonal stimulation necessary for elicitation of maternal nest-building in the mouse (*Mus musculus*). *Animal Behaviour*, 1969, 17, 730–737.
- Lisman, J. E., and Zhabotinsky, A. M. A model of synaptic memory: a CaMKII/PP1 switch that potentiates transmission by organizing an AMPA receptor anchoring assembly. *Neuron*, 2001, 31, 191–201.
- Livingstone, M. S., and Hubel, D. H. Anatomy and physiology of a color system in the primate visual cortex. *Journal of Neuroscience*, 1984, 4, 309–356.
- Livingstone, M. S., and Hubel, D. Segregation of form, color, movement, and depth: Anatomy, physiology, and perception. *Science*, 1988, 240, 740–749.
- Lledo, P. M., Hjelmstad, G. O., Mukherji, S., Soderling, T. R., Malenka, R. C., and Nicoll, R. A. Calcium/calmodulin-dependent kinase II and long-term potentiation enhance synaptic transmission by the same mechanism. *Proceedings of the National Academy of Science, USA*, 1995, 92, 11175–11179.
- Llorca, P. M., Chereau, I., Bayle, F. J., and Lancon, C. Tardive dyskinesias and antipsychotics: A review. *European Psychiatry*, 2002, 17, 129–138.
- Loeb, G. E. Cochlear prosthetics. *Annual Review of Neuroscience*, 1990, 13, 357–371.
- Loewenstein, W. R., and Mendelson, M. Components of receptor adaptation in a Pacinian corpuscle. *Journal of Physiology (London)*, 1965, 177, 377–397.
- Logan, F. A. Decision making by rats: Delay versus amount of reward. *Journal of Comparative and Physiological Psychology*, 1965, 59, 1–12.
- Lohr, J. B., Caligiuri, M. P., Edson, R., Lavori, P., Adler, L. A., Rotrosen, J., and Hitzemann, R. Treatment predictors of extrapyramidal side effects in patients with tardive dyskinesia: Results from Veterans Affairs Cooperative Study 394. *Journal of Clinical Psychopharmacology*, 2002, 22, 196–200.
- Lohse, P., Lohse, P., Chahrokh-Zadeh, S., and Seidel, D. The acid lipase family: Three enzymes, one highly conserved gene structure. *Journal of Lipid Research*, 1997, 38, 880–891.
- Lømo, T. Frequency potentiation of excitatory synaptic activity in the dentate area of the hippocampal formation. *Acta Physiologica Scandinavica*, 1966, 68 (Suppl. 227), 128.
- Loscher, W., Annies, R., and Honack, D. The N-methyl-D-aspartate receptor antagonist MK-801 induces increases in dopamine and serotonin metabolism in several brain regions of rats. *Neuroscience Letters*, 1991, 128, 191–194.
- Lu, J., Greco, M. A., Shiromani, P., and Saper, C. B. Effect of lesions of the ventrolateral preoptic nucleus on NREM and REM sleep. *Journal of Neuroscience*, 2000, 20, 3830–3842.
- Lu, J., Zhang, Y.-H., Chou, T. C., Gaus, S. E., Elmquist, J. K., Shiromani, P., and Saper, C. B. Contrasting effects of ibotenate lesions of the paraventricular nucleus and subparaventricular zone on sleep-wake cycle and temperature regulation. *Journal of Neuroscience*, 2001, 21, 4864–4874.
- Lucas, B. K., Ormandy, C. J., Binart, N., Bridges, R. S., and Kelley, P. A. Null mutation of the prolactin receptor gene produces a defect in maternal behavior. *Endocrinology*, 1998, 139, 4102–4107.
- Lupien, S., Lecours, A. R., Schwartz, G., Sharma, S., Hauger, R. L., Meaney, M. J., and Nair, N. P. V. Longitudinal study of basal cortisol levels in healthy elderly subjects: Evidence for subgroups. *Neurobiology of Aging*, 1996, 17, 95–105.
- Lüscher, C., Xia, H., Beattie, E. C., Carroll, R. C., von Zastrow, M., Malenka, R. C., and Nicoll, R. A. Role of AMPA receptor cycling in synaptic transmission and plasticity. *Neuron*, 1999, 24, 649–658.
- Lutz, T. A., Diener, M., and Scharrer, E. Interoportal mercaptoacetate infusion increases afferent activity in the common hepatic vagus branch of the rat. *American Journal of Physiology*, 1997, 273, R442–R445.
- Luzzi, S., Pucci, E., Di Bella, P., and Piccirilli, M. Topographical disorientation consequent to amnesia of spatial location in a patient with right parahippocampal damage. *Cortex*, 2000, 36, 427–434.
- Lydic, R., Baghdoyan, H. A., Hibbard, L., Bonyak, E. V., DeJoseph, M. R., and Hawkins, R. A. Regional brain glucose metabolism is altered during rapid eye movement sleep in the cat: A preliminary study. *Journal of Comparative Neurology*, 1991, 304, 517–529.
- Lynch, G., Larson, J., Kelso, S., Barrionuevo, G., and Schottler, F. Intracellular injections of EGTA block induction of long-term potentiation. *Nature*, 1984, 305, 719–721.
- Lytton, W. W., and Brust, J. C. M. Direct dyslexia: Preserved oral reading of real words in Wernicke's aphasia. *Brain*, 1989, 112, 583–594.
- Ma, W., Miao, Z., and Novotny, M. Induction of estrus in grouped female mice (*Mus domesticus*) by synthetic analogs of preputial gland constituents. *Chemical Senses*, 1999, 24, 289–293.
- MacLean, H. E., Warne, G. L., and Zajac, J. D. Defects of androgen receptor function: From sex reversal to motor-neuron disease. *Molecular and Cellular Endocrinology*, 1995, 112, 133–141.
- MacLean, P. D. Psychosomatic disease and the “visceral brain”: Recent developments bearing on the Papez theory of emotion. *Psychosomatic Medicine*, 1949, 11, 338–353.
- Madden, P. A. F., Heath, A. C., Rosenthal, N. E., and Martin, N. G. Seasonal changes in mood and behavior: The role of genetic factors. *Archives of General Psychiatry*, 1996, 53, 47–55.

- Magistretti, P. J., Pellerin, L., Rothman, D. L., and Shulman, R. G. Energy on demand. *Science*, 1999, 283, 496–497.
- Maguire, E. A., Burgess, N., Donnett, J. G., Frackowiak, R. S. J., Frith, C. D., and O'Keefe, J. Knowing where and getting there: A human navigation network. *Science*, 1998, 280, 921–924.
- Maguire, E. A., Frackowiak, R. S. J., and Frith, C. D. Recalling routes around London: Activation of the right hippocampus in taxi drivers. *Journal of Neuroscience*, 1997, 17, 7103–7110.
- Maguire, E. A., Gadian, D. G., Johnsrude, I. S., Good, C. D., Ashburner, J., Frackowiak, R. S. J., and Frith, C. D. Navigation-related structural change in the hippocampi of taxi drivers. *Proceedings of the National Academy of Science, USA*, 2000, 97, 4398–4403.
- Mahley, R. W., and Rall, S. C. Apolipoprotein E: Far more than a lipid transport protein. *Annual Review of Genomics and Human Genetics*, 2000, 1, 507–537.
- Maier, S. F., Drugan, R. C., and Grau, J. W. Controllability, coping behavior, and stress-induced analgesia in the rat. *Pain*, 1982, 12, 47–56.
- Maj, M. Organic mental disorders in HIV-1 infection. *AIDS*, 1990, 4, 831–840.
- Malizia, A. L., Cunningham, V. J., Bell, C. J., Liddle, P. F., Jones, T., and Nutt, D. J. Decreased brain GABA(A)-benzodiazepine receptor binding in panic disorder: preliminary results from a quantitative PET study. *Archives of General Psychiatry*, 1998, 55, 15–20.
- Mallow, G. K. The relationship between aggression and cycle stage in adult female rhesus monkeys (*Macaca mulatta*). *Dissertation Abstracts*, 1979, 39, 3194.
- Mallucci, G., Dickinson, A., Linehan, J., Köhn, P. C., Brandner, S., and Collinge, J. Depleting neuronal PrP in prion infections prevents disease and reverses spongiosis. *Science*, 2003, 302, 871–874.
- Malnic, B., Hirono, J., Sato, T., and Buck, L. B. Combinatorial receptor codes for odors. *Cell*, 1999, 96, 713–723.
- Malsbury, C. W. Facilitation of male rat copulatory behavior by electrical stimulation of the medial preoptic area. *Physiology and Behavior*, 1971, 7, 797–805.
- Manji, H. K., and Lenox, R. H. Lithium: A molecular transducer of mood-stabilization in the treatment of bipolar disorder. *Neuropharmacology*, 1998, 19, 161–166.
- Manji, H. K., Moore, G. J., and Chen, G. Bipolar disorder: Leads from the molecular and cellular mechanisms of action of mood stabilizers. *British Journal of Psychiatry*, 2001, 178 (Suppl. 41), S107–S109.
- Mann, J. J., Malone, K. M., Diehl, D. J., Perel, J., Nichols, T. E., and Mintun, M. A. Positron emission tomographic imaging of serotonin activation effects on prefrontal cortex in healthy volunteers. *Journal of Cerebral Blood Flow and Metabolism*, 1996, 16, 418–426.
- Manning, L., and Campbell, R. Optic aphasia with spared action naming: A description and possible loci of impairment. *Neuropsychologia*, 1992, 30, 587–592.
- Mantzoros, C., Flier, J. S., Lesem, M. D., Brewerton, T. D., and Jimerson, D. C. Cerebrospinal fluid leptin in anorexia nervosa: Correlation with nutritional status and potential role in resistance to weight gain. *Journal of Clinical Endocrinology and Metabolism*, 1997, 82, 1845–1851.
- Maquet, P. Sleep function(s) and cerebral metabolism. *Behavioural Brain Research*, 1995, 69, 75–83.
- Maquet, P., Dive, D., Salmon, E., Sadzot, B., Franco, G., Poirrier, R., Von Frenckell, R., and Franck, G. Cerebral glucose utilization during sleep-wake cycle in man determined by positron emission tomography and [¹⁸F]2-fluoro-2-deoxy-D-glucose method. *Brain Research*, 1990, 513, 136–143.
- Maren, S. Auditory fear conditioning increases CS-elicited spike firing in lateral amygdala neurons even after extensive over-training. *European Journal of Neuroscience*, 2000, 12, 4047–4054.
- Maret, G., Testa, B., Jenner, P., el Tayar, N., and Carrupt, P. A. The MPTP story: MAO activates tetrahydropyridine derivatives to toxins causing parkinsonism. *Drug Metabolism Review*, 1990, 22, 291–332.
- Margolin, D. I., and Goodman-Schulman, R. Oral and written spelling impairments. In *Cognitive Neuropsychology in Clinical Practice*, edited by D. I. Margolin. New York: Oxford University Press, 1992.
- Margolin, D. I., and Walker, J. A. Personal communication, 1981.
- Margolin, D. I., Marcel, A. J., and Carlson, N. R. Common mechanisms in dysnomia and post-semantic surface dyslexia: Processing deficits and selective attention. In *Surface Dyslexia: Neuropsychological and Cognitive Studies of Phonological Reading*, edited by M. Coltheart. London: Lawrence Erlbaum Associates, 1985.
- Marler, J. R., Tilley, B. C., Lu, M., Brott, T. G., Lyden, P. C., Grotta, J. C., Broderick, J. P., Levine, S. R., Frankel, M. P., Horowitz, S. H., Haley, E. C., Lewandowski, C. A., and Kwiatkowski, T. P. Early stroke treatment associated with better outcome: The NINDS rt-PA stroke study. *Neurology*, 2000, 55, 1649–1655.
- Marrocco, R. T., Witte, E. A., and Davidson, M. C. Arousal systems. *Current Opinion in Neurobiology*, 1994, 4, 166–170.
- Marshall, B. E., and Longnecker, D. E. General anesthetics. In *The Pharmacological Basis of Therapeutics*, edited by Goodman, L. S., Gilman, A., Rall, T. W., Nies, A. S., and Taylor, P. New York: Pergamon Press, 1990.
- Marshall, J. C., and Newcombe, F. Patterns of paralexia: A psycholinguistic approach. *Journal of Psycholinguistic Research*, 1973, 2, 175–199.
- Marson, L. Central nervous system neurons identified after injection of pseudorabies virus into the rat clitoris. *Neuroscience Letters*, 1995, 190, 41–44.
- Marson, L., and McKenna, K. E. CNS cell groups involved in the control of the ischio-cavernosus and bulbospongiosus muscles: A transneuronal tracing study using pseudorabies virus. *Journal of Comparative Neurology*, 1996, 374, 161–179.
- Martin, A., Wiggs, C. L., Ungerleider, L. G., and Haxby, J. V. Neural correlates of category-specific knowledge. *Nature*, 1996, 379, 649–652.
- Martin, P. R., White, A. J., Goodchild, A. K., Wilder, H. D., and Sefton, A. E. *European Journal of Neuroscience*, 1997, 9, 1536–1541.
- Martinez, M., Campion, D., Babron, M. C., and Clergetdarpous, F. Is a single mutation at the same locus responsible for all affected cases in a large Alzheimer pedigree (Fad4)? *Genetic Epidemiology*, 1993, 10, 431–435.
- Martin-Santos, R., Bulbena, A., Porta, M., Gago, J., Molina, L., and Duro, J. C. Associa-
- tion between joint hypermobility syndrome and panic disorder. *American Journal of Psychiatry*, 1998, 155, 1578–1583.
- Mas, M. Neurobiological correlates of masculine sexual behavior. *Neuroscience and Biobehavioral Reviews*, 1995, 19, 261–277.
- Masland, R. H. Neuronal diversity in the retina. *Current Opinion in Neurobiology*, 2001, 11, 431–436.
- Matsuda, L. A., Lolait, S. J., Brownstein, M. J., Young, A. C., and Bonner, T. I. Structure of a cannabinoid receptor and functional expression of the cloned cDNA. *Nature*, 1990, 346, 561–564.
- Matteo, S., and Rissman, E. F. Increased sexual activity during the midcycle portion of the human menstrual cycle. *Hormones and Behavior*, 1984, 18, 249–255.
- Matthews, D. B., Simson, P. E., and Best, P. J. Ethanol alters spatial processing of hippocampal place cells: A mechanism for impaired navigation when intoxicated. *Alcoholism: Clinical and Experimental Research*, 1996, 20, 404–407.
- Mawson, A. R. Anorexia nervosa and the regulation of intake: A review. *Psychological Medicine*, 1974, 4, 289–308.
- Mayer, D. J., Price, D. D., Rafii, A., and Barber, J. Acupuncture hypalgesia: Evidence for activation of a central control system as a mechanism of action. In *Advances in Pain Research and Therapy*, Vol. 1, edited by J. J. Bonica and D. Albe-Fessard. New York: Raven Press, 1976.
- Mazur, A. Hormones, aggression, and dominance in humans. In *Hormones and Aggressive Behavior*, edited by B. B. Svare. New York: Plenum Press, 1983.
- Mazur, A., and Lamb, T. Testosterone, status, and mood in human males. *Hormones and Behavior*, 1980, 14, 236–246.
- McCann, U. D., Wong, D. F., Yokoi, F., Villemagne, V., Dannls, R. F., and Ricaurte, G. A. Reduced striatal dopamine transporter density in abstinent methamphetamine and methcathinone users: Evidence from positron emission tomography studies with [¹¹C]WIN-35,428. *Journal of Neuroscience*, 1998, 18, 8417–8422.
- McCarley, R. W., and Hobson, J. A. The form of dreams and the biology of sleep. In *Handbook of Dreams: Research, Theory, and Applications*, edited by B. Wolman. New York: Van Nostrand Reinhold, 1979.
- McCarthy, R. A., and Warrington, E. K. Evidence for modality-specific meaning systems in the brain. *Nature*, 1988, 334, 428–435.
- McCarthy, R. A., and Warrington, E. K. *Cognitive Neuropsychology: A Clinical Introduction*. San Diego: Academic Press, 1990.
- McCaul, K. D., Gladue, B. A., and Joppa, M. Winning, losing, mood, and testosterone. *Hormones and Behavior*, 1992, 26, 486–504.
- McClintock, M. K. Menstrual synchrony and suppression. *Nature*, 1971, 229, 244–245.
- McClintock, M. K., and Adler, N. T. The role of the female during copulation in wild and domestic Norway rats (*Rattus norvegicus*). *Behaviour*, 1978, 67, 67–96.
- McCormick, D. A. Neurotransmitter actions in the thalamus and cerebral cortex. *Journal of Clinical Neurophysiology*, 1992, 9, 212–223.
- McEwen, B. S., and Sapolsky, R. M. Stress and cognitive function. *Current Biology*, 1995, 5, 205–216.

- McFarlane, A. C., Atchison, M., and Yehuda, R. The acute stress response following motor vehicle accidents and its relation to PTSD. *Annals of the New York Academy of Science*, 1997, 821, 437–441.
- McGinty, D. J., and Sterman, M. B. Sleep suppression after basal forebrain lesions in the cat. *Science*, 1968, 160, 1253–1255.
- McHugh, T. J., Blum, K. I., Tsien, J. Z., Tonegawa, S., and Wilson, M. A. Impaired hippocampal representation of space in CA1-specific NMDAR1 knockout mice. *Cell*, 1996, 87, 1339–1349.
- McIver, B., Connacher, A., Whittle, I., Baylis, P., and Thompson, C. Adipsic hypothalamic diabetes insipidus after clipping of anterior communicating artery aneurysm. *British Medical Journal*, 1991, 303, 1465–1467.
- McLaughlin, S. K., McKinnon, P. J., Robichon, A., Spickofsky, N., and Margolskee, R. F. Gustducin and transducin: A tale of 2 G-proteins. *CIBA Foundation Symposia*, 1993, 179, 186–200.
- Meesters, Y., Jansen, J. H. C., Beersma, D. G. M., Bouhuys, A. L., and Van den Hooffdakker, R. H. Light therapy for seasonal affective disorder. The effects of timing. *British Journal of Psychiatry*, 1995, 166, 607–612.
- Mehlman, P. T., Higley, J. D., Faucher, I., Lilly, A. A., Taub, D. M., Vickers, J., Suomi, S. J., and Linnola, M. Correlation of CSF 5-HIAA concentration with sociality and the timing of emigration in free-ranging primates. *American Journal of Psychiatry*, 1995, 152, 907–913.
- Meijer, J. H., and Rietveld, W. J. Neurophysiology of the suprachiasmatic circadian pacemaker in rodents. *Physiological Reviews*, 1989, 69, 671–707.
- Mellet, E., Tzourio, N., Crivello, F., Jolio, M., Denis, M., and Mazoyer, B. Functional anatomy of spatial mental imagery generated from verbal instructions. *Journal of Neuroscience*, 1996, 16, 6504–6512.
- Melzak, R. Phantom limbs. *Scientific American*, 1992, 266(4), 120–126.
- Menco, B. P. M., Bruch, R. C., Dau, B., and Danho, W. Ultrastructural localization of olfactory transduction components: The G protein subunit G_{olf} and type III adenylyl cyclase. *Neuron*, 1992, 8, 441–453.
- Mercer, J. G., Hoggard, N., Williams, L. M., Lawrence, C. B., Hannah, L. T., Morgan, P. J., and Trayhurn, P. Coexpression of leptin receptor and preproneuropeptide Y mRNA in arcuate nucleus of mouse hypothalamus. *Journal of Neuroendocrinology*, 1996, 8, 733–735.
- Meredith, M. Chronic recording of vomeronasal pump activation in awake behaving hamsters. *Physiology and Behavior*, 1994, 56, 345–354.
- Meredith, M., and O'Connell, R. J. Efferent control of stimulus access to the hamster vomeronasal organ. *Journal of Physiology*, 1979, 286, 301–316.
- Mereu, G., Yoon, K.-W. P., Boi, V., Gessa, G. L., Naes, L., and Westfall, T. C. Preferential stimulation of ventral tegmental area dopaminergic neurons by nicotine. *European Journal of Pharmacology*, 1987, 141, 395–400.
- Meschies, M. H., Fleshner, M., Heman, K. L., Rose, G. M., and Diamond, D. M. Exposing rats to a predator blocks primed burst potentiation in the hippocampus *in vitro*. *Journal of Neuroscience*, 1999, 19, RC18(1–5).
- Mesulam, M.-M. Frontal cortex and behavior. *Annals of Neurology*, 1986, 19, 320–325.
- Meyer-Bahlburg, H. F. L. Psychoendocrine research on sexual orientation: Current status and future options. *Progress in Brain Research*, 1984, 63, 375–398.
- Mignot, E. Genetic and familial aspects of narcolepsy. *Neurology*, 1998, 50, S16–S22.
- Miller, M. T., and Strömlund, K. Thalidomide embryopathy: An insight into autism. *Tetiology*, 1993, 47, 387–388.
- Miller, N. E. Understanding the use of animals in behavioral research: Some critical issues. *Annals of the New York Academy of Sciences*, 1983, 406, 113–118.
- Milner, B. Memory and the temporal regions of the brain. In *Biology of Memory*, edited by K. H. Pribram and D. E. Broadbent. New York: Academic Press, 1970.
- Milner, B., Corkin, S., and Teuber, H.-L. Further analysis of the hippocampal amnesia syndrome: 14-year follow-up study of H. M. *Neuropsychologia*, 1968, 6, 317–338.
- Mindus, P., Rasmussen, S. A., and Lindquist, C. Neurosurgical treatment for refractory obsessive-compulsive disorder: Implications for understanding frontal lobe function. *Journal of Neuropsychiatry and Clinical Neurosciences*, 1994, 6, 467–477.
- Mishkin, M. Visual mechanisms beyond the striate cortex. In *Frontiers in Physiological Psychology*, edited by R. W. Russell. New York: Academic Press, 1966.
- Mitchell, J. E. Psychopharmacology of eating disorders. *Annals of the New York Academy of Sciences*, 1989, 575, 41–49.
- Mitler, M. M. Evaluation of treatment with stimulants in narcolepsy. *Sleep*, 1994, 17, S103–S106.
- Moghaddam, B., and Bunney, B. S. Differential effect of cocaine on extracellular dopamine levels in rat medial prefrontal cortex and nucleus accumbens: Comparison to amphetamine. *Synapse*, 1989, 4, 156–161.
- Moldin, S. O., Reich, T., and Rice, J. P. Current perspectives on the genetics of unipolar depression. *Behavioral Genetics*, 1991, 21, 211–242.
- Mollon, J. D. "Tho' she kneel'd in that place where they grew . . .": The uses and origins of primate colour vision. *Journal of Experimental Biology*, 1989, 146, 21–38.
- Moltz, H., Lubin, M., Leon, M., and Numan, M. Hormonal induction of maternal behavior in the ovariectomized nulliparous rat. *Physiology and Behavior*, 1970, 5, 1373–1377.
- Mombaerts, P. Molecular biology of odorant receptors in vertebrates. *Annual Review of Neuroscience*, 1999, 22, 487–510.
- Money, J., and Ehrhardt, A. *Man & Woman, Boy & Girl*. Baltimore: Johns Hopkins University Press, 1972.
- Money, J., Schwartz, M., and Lewis, V. G. Adult heterosexual status and fetal hormonal masculinization and demasculinization: 46,XX congenital virilizing adrenal hyperplasia and 46,XY androgen-insensitivity syndrome compared. *Psychoneuroendocrinology*, 1984, 9, 405–414.
- Monsonego, A., and Weiner, H. L. Immunotherapeutic approaches to Alzheimer's disease. *Science*, 2003, 302, 834–838.
- Montague, C. T., Farooqi, I. S., Whitehead, J. P., Soos, M. A., Rau, H., Wareham, N. J., Sewter, C. P., Digby, J. E., Mohammed, S. N., Hurst, J. A., Cheetham, C. H., Earley, A. R., Barnett, A. H., Prins, J. B., and O'Rahilly, S. Congenital leptin deficiency is associated with severe early-onset obesity in humans. *Nature*, 1997, 387, 903–908.
- Moore, G. J., Bebchuk, J. M., Wilds, I. B., Chen, G., and Manji, H. K. Lithium-induced increase in human brain grey matter. *Lancet*, 2000, 356, 1241–1242.
- Moore, R. Y. Neural control of the pineal gland. *Behavioural Brain Research*, 1995, 73, 125–130.
- Moore, R. Y., and Eichler, V. B. Loss of a circadian adrenal corticosterone rhythm following suprachiasmatic lesions in the rat. *Brain Research*, 1972, 42, 201–206.
- Moore, R. Y., Card, J. P., and Riley, J. N. The suprachiasmatic hypothalamic nucleus: Neuronal ultrastructure. *Neuroscience Abstracts*, 1980, 6, 758.
- Morales, F. R., Boxer, P. A., and Chase, M. H. Behavioral state-specific inhibitory postsynaptic potentials impinge on cat lumbar motoneurons during active sleep. *Experimental Neurology*, 1987, 98, 418–435.
- Moran, T. H., Shnayder, L., Hostetler, A. M., and McHugh, P. R. Pyloromyotomy reduces the satiety action of cholecystokinin. *American Journal of Physiology*, 1989, 255, R1059–R1063.
- Mori, E., Ikeda, M., Hirono, N., Kitagaki, H., Imamura, T., and Shimomura, T. Amygdalar volume and emotional memory in Alzheimer's disease. *American Journal of Psychiatry*, 1999, 156, 216–222.
- Morris, J. S., Frith, C. D., Perrett, D. I., Rowland, D., Young, A. W., Calder, A. J., and Dolan, R. J. A differential neural response in the human amygdala to fearful and happy facial expressions. *Nature*, 1996, 383, 812–815.
- Morris, N. M., Udry, J. R., Khan-Dawood, F., and Dawood, M. Y. Marital sex frequency and midcycle female testosterone. *Archives of Sexual Behavior*, 1987, 16, 27–37.
- Morris, R. G. M., Garrud, P., Rawlins, J. N. P., and O'Keeffe, J. Place navigation impaired in rats with hippocampal lesions. *Nature*, 1982, 297, 681–683.
- Moscovitch, M., and Olds, J. Asymmetries in emotional facial expressions and their possible relation to hemispheric specialization. *Neuropsychologia*, 1982, 20, 71–81.
- Moscovitch, M., Kapur, S., Koehler, S., and Houle, S. Distinct neural correlates of visual long-term memory for spatial location and object identity: A positron emission tomography study in humans. *Proceedings of the National Academy of Sciences*, 1995, 92, 3721–3725.
- Moscovitch, M., Winocur, G., and Behrmann, M. What is special about face recognition? Nineteen experiments on a person with visual object agnosia and dyslexia but normal face recognition. *Journal of Cognitive Neuroscience*, 1997, 9, 555–604.
- Mukhametov, L. M. Sleep in marine mammals. In *Sleep Mechanisms*, edited by A. A. Borbély and J. L. Valatx. Munich: Springer-Verlag, 1984.
- Munro, J. F., Stewart, I. C., Seidelin, P. H., Mackenzie, H. S., and Dewhurst, N. E. Mechanical treatment for obesity. *Annals of the New York Academy of Sciences*, 1987, 499, 305–312.
- Murphy, A. Z., and Hoffman, G. E. Distribution of gonadal steroid receptor-containing neurons in the preoptic-periaqueductal

- gray-brainstem pathway: A potential circuit for the initiation of male sexual behavior. *Journal of Comparative Neurology*, 2001, 438, 191–212.
- Murray, A. M., Hyde, T. M., Knable, M. B., Herman, M. M., Bigelow, L. B., Carter, J. M., Weinberger, D. R., and Kleinman, J. E. Distribution of putative D4 dopamine receptors in postmortem striatum from patients with schizophrenia. *Journal of Neuroscience*, 1995, 15, 2186–2191.
- Murray, A. M., Ryoo, H., Gurevich, E., and Joyce, J. N. Localization of dopamine D₃ receptors to mesolimbic and D₂ receptors to mesostriatal regions of human forebrain. *Proceedings of the National Academy of Sciences, USA*, 1994, 91, 11271–11275.
- Murray, C. J., and Lopez, A. D. Alternative projections of mortality and disability by cause 1990–2020: Global Burden of Disease Study. *Lancet*, 1997, 349, 180–183.
- Must, A., Spadano, J., Coakley, E. H., Field, A. E., Colditz, G., and Dietz, W. H. The disease burden associated with overweight and obesity. *Journal of the American Medical Association*, 1999, 282, 1523–1529.
- Myers, R. D., Wooten, M. H., Ames, C. D., and Nyce, J. W. Anorexic action of a new potential neuropeptide Y antagonist [D-Tyr^{27,36}D-Thr³²]NPY (27–36) infused into the hypothalamus of the rat. *Brain Research Bulletin*, 1995, 37, 237–245.
- Nadeau, S. E. Impaired grammar with normal fluency and phonology. *Brain*, 1988, 111, 1111–1137.
- Nader, K., Majidishad, P., Amorapant, P., and LeDoux, J. E. Damage to the lateral and central, but not other, amygdaloid nuclei prevents the acquisition of auditory fear conditioning. *Learning and Memory*, 2001, 8, 156–163.
- Naeser, M. A., Palumbo, C. L., Helm-Estabrooks, N., Stiassny-Eder, D., and Albert, M. L. Severe nonfluency in aphasia: Role of the medial subcallosal fasciculus and other white matter pathways in recovery of spontaneous speech. *Brain*, 1989, 112, 1–38.
- Nafe, J. P., and Waggoner, K. S. The nature of pressure adaptation. *Journal of General Psychology*, 1941, 25, 323–351.
- Nakahara, D., Ozaki, N., Miura, Y., Miura, H., and Nagatsu, T. Increased dopamine and serotonin metabolism in rat nucleus accumbens produced by intracranial self-stimulation of medial forebrain bundle as measured by in vivo microdialysis. *Brain Research*, 1989, 495, 178–181.
- Nakamura, T., and Gold, G. A cyclic nucleotide-gated conductance in olfactory receptor cilia. *Nature*, 1987, 325, 442–444.
- Nakazato, M., Mauakami, N., Date, Y., Kojima, M., Matsuo, H., Kangawa, K., and Matsukura, S. A role for ghrelin in the central regulation of feeding. *Nature*, 2001, 409, 194–198.
- Nambu, T., Sakurai, T., Mizukami, K., Hosoya, Y., Yanagisawa, M., and Goto, K. Distribution of orexin neurons in the adult rat brain. *Brain Research*, 1999, 827, 243–260.
- Naranjo, C. A., Poulos, C. X., Bremner, K. E., and Lanctot, K. L. Citalopram decreases desirability, liking, and consumption of alcohol in alcohol-dependent drinkers. *Clinical Pharmacology and Therapeutics*, 1992, 51, 729–739.
- Nathans, J., Piantanida, T. P., Eddy, R. L., Shows, T. B., and Hogness, D. S. Molecular genetics of inherited variation in human color vision. *Science*, 1986, 232, 203–210.
- Nauta, W. J. H. Hypothalamic regulation of sleep in rats: Experimental study. *Journal of Neurophysiology*, 1946, 9, 285–316.
- Nauta, W. J. H. Some efferent connections of the prefrontal cortex in the monkey. In *The Frontal Granular Cortex and Behavior*, edited by J. M. Warren and K. Akert. New York: McGraw-Hill, 1964.
- Navia, B. A., Dafni, U., Simpson, D., Tucker, T., Singer, E., McArthur, J. C., Yiannoutsos, C., Zaborski, L., and Lipton, S. A. A phase I/II trial of nimodipine for HIV-related neurologic complications. *Neurology*, 1998, 51, 221–228.
- Nef, P., Hermansborgmeyer, I., Artierespina, H., Beasley, L., Dionne, V. E., and Heinemann, S. F. Spatial pattern of receptor expression in the olfactory epithelium. *Proceedings of the National Academy of Sciences (USA)*, 1992, 89, 8948–8952.
- New, A. S., Hazlett, E. A., Buchsbaum, M. S., Goodman, M., Reynolds, D., Mitropoulou, V., Sprung, L., Shaw, R. B., Koenigsberg, H., Platholi, J., Silverman, J., and Siever, L. J. Blunted prefrontal cortical 18fluoro-deoxyglucose positron emission tomography response to meta-chlorophenylpiperazine in impulsive aggression. *Archives of General Psychiatry*, 2002, 59, 621–629.
- Nicholl, C. S., and Russell, R. M. Analysis of animal rights literature reveals the underlying motives of the movement: Ammunition for counter offensive by scientists. *Endocrinology*, 1990, 127, 985–989.
- Nicholls, P., and Wenner, C. E. Release of respiratory control by uncouplers: the question of stoichiometry. *Archives of Biochemistry and Biophysics*, 1972, 151, 206–215.
- Nicolas, A., Petit, D., Rompre, S., and Montplaisir, J. Sleep spindle characteristics in healthy subjects of different age groups. *Clinical Neurophysiology*, 2001, 112, 521–527.
- Nicoll, J. A. R., Wilkinson, D., Holmes, C., Steart, P., Markham, H., and Weller, R. O. Neuropathology of human Alzheimer disease after immunization with amyloid-β peptide: A case report. *Nature Medicine*, 2003, 9, 448–452.
- Nishino, S., Ripley, B., Overeem, S., Lammers, G. J., and Mignot, E. Hypocretin (orexin) deficiency in human narcolepsy. *Lancet*, 2000, 355, 39–40.
- Nonogaki, K., Strack, A. M., Dallman, M. F., and Tecott, L. H. Leptin-independent hyperphagia and type 2 diabetes in mice with a mutated serotonin 5-HT_{2C} receptor gene. *Nature Medicine*, 1998, 4, 1152–1156.
- Norgren, R., and Grill, H. Brain-stem control of ingestive behavior. In *The Physiological Mechanisms of Motivation*, edited by D. W. Pfaff. New York: Springer-Verlag, 1982.
- Novin, D., VanderWeele, D. A., and Rezek, M. Hepatic-portal 2-deoxy-D-glucose infusion causes eating: Evidence for peripheral glucoreceptors. *Science*, 1973, 181, 858–860.
- Novotny, M. V., Ma, W., Wiesler, D., and Zidek, L. Positive identification of the puberty-accelerating pheromone of the house mouse: The volatile ligands associating with the major urinary protein. *Proceedings of the Royal Society of London [B]*, 1999, 266, 2017–2022.
- Numan, M. Medial preoptic area and maternal behavior in the female rat. *Journal of Comparative and Physiological Psychology*, 1974, 87, 746–759.
- Numan, M., and Numan, M. J. Projection sites of medial preoptic area and ventral bed nucleus of the stria terminalis neurons that express Fos during maternal behavior in female rats. *Journal of Neuroendocrinology*, 1997, 9, 369–384.
- Numan, M., and Smith, H. G. Maternal behavior in rats: Evidence for the involvement of preoptic projections to the ventral tegmental area. *Behavioral Neuroscience*, 1984, 98, 712–727.
- Numan, M., Rosenblatt, J. S., and Komisaruk, B. R. Medial preoptic area and onset of maternal behavior in the rat. *Journal of Comparative and Physiological Psychology*, 1977, 91, 146–164.
- Nutt, D. J., Glue, P., Lawson, C. W., and Wilson, S. Flumazenil provocation of panic attacks: Evidence for altered benzodiazepine receptor sensitivity in panic disorders. *Archives of General Psychiatry*, 1990, 47, 917–925.
- Oakin, S., Rodriguez del Castillo, A., Guerra, M., Battaner, E., and Mas, M. Change in forebrain Na,K-ATPase activity and serum hormone levels during sexual behavior in male rats. *Physiology and Behavior*, 1989, 45, 407–410.
- Obler, L. K., and Gjerlow, K. *Language and the Brain*. Cambridge, England: Cambridge University Press, 1999.
- O'Brien, C. P., Volpicelli, L. A., and Volpicelli, J. R. Naltrexone in the treatment of alcoholism: A clinical review. *Alcohol*, 1996, 13, 35–39.
- O'Callaghan, E., Gibson, T., Colohan, H. A., Buckley, P., Walshe, D. G., Larkin, C., and Waddington, J. L. Risk of schizophrenia in adults born after obstetric complications and their association with early onset of illness: A controlled study. *British Medical Journal*, 1992, 305, 1256–1259.
- O'Carroll, R., Shapiro, C., and Bancroft, J. Androgens, behavior and nocturnal erection in hypogonadal men: The effects of varying the replacement dose. *Clinical Endocrinology*, 1985, 73, 527–538.
- O'Dell, T. J., Hawkins, R. D., Kandel, E. R., and Arancio, O. Tests of the roles of two diffusible substances in long-term potentiation: Evidence for nitric oxide as a possible early retrograde messenger. *Proceedings of the National Academy of Sciences, USA*, 1991, 88, 11285–11289.
- Ogawa, S., Olazabal, U. E., Parhar, I. S., and Pfaff, D. W. Effects of intrahypothalamic administration of antisense DNA for progesterone receptor mRNA on reproductive behavior and progesterone receptor immunoreactivity in female rat. *Journal of Neuroscience*, 1994, 14, 1766–1774.
- O'Keefe, J., and Bouma, H. Complex sensory properties of certain amygdala units in the freely moving cat. *Experimental Neurology*, 1969, 23, 384–398.
- O'Keefe, J., and Dostrovsky, T. The hippocampus as a spatial map: Preliminary evidence from unit activity in the freely moving rat. *Brain Research*, 1971, 34, 171–175.
- Olausson, H., Lamarre, Y., Backlund, H., Morin, C., Wallin, B. G., Starck, G., Ekholm, S., Strigo, I., Worsley, K., Vallbo, Å. B., Bushnell, M. C. Unmyelinated tactile afferents signal touch and project to insular cortex. *Nature Neuroscience*, 2002, 5, 900–904.
- Olds, M. E., and Fobes, J. L. The central basis of motivation: Intracranial self-stimulation studies. *Annual Review of Psychology*, 1981, 32, 523–574.

- Oleksenko, A. I., Mukhametov, L. M., Polyakova, I. G., Supin, A. Y., and Kovalzon, V. M. Unihemispheric sleep deprivation in bottlenose dolphins. *Journal of Sleep Research*, 1992, 1, 40–44.
- O'Mara, S. M., Rolls, E. T., Berthoz, A., and Kesner, R. P. Neurons responding to whole-body motion in the primate hippocampus. *Journal of Neuroscience*, 1994, 14, 6511–6523.
- Ossebaard, C. A., Polet, I. A., and Smith, D. V. Amiloride effects on taste quality: Comparison of single and multiple response category procedures. *Chemical Senses*, 1997, 22, 267–275.
- Osaki, M., Soma, Y., Arihiro, S., Watanabe, Y., Moriwaki, H., and Naritomi, H. Dystopia: Isolated typing impairment without aphasia, apraxia or visuospatial impairment. *European Neurology*, 2002, 47, 136–140.
- Owen, A. M., James, M., Leigh, P. N., Summers, B. A., Marsden, C. D., Quinn, N. P., Lange, K. W., and Robbins, T. W. Frontostriatal cognitive deficits at different stages of Parkinson's disease. *Brain*, 1992, 115, 1727–1751.
- Ozata, M., Ozdemir, I. C., and Licinio, J. Human leptin deficiency caused by a missense mutation: Multiple endocrine defects, decreased sympathetic tone, and immune system dysfunction indicate new targets for leptin action, greater central than peripheral resistance to the effects of leptin, and spontaneous correction of leptin-mediated defects. *Journal of Clinical Endocrinology and Metabolism*, 1999, 84, 3686–3695.
- Packard, M. G., and Teather, L. A. Double dissociation of hippocampal and dorsal-striatal memory systems by posttraining intracerebral injections of 2-amino-5-phosphonopentanoic acid. *Behavioral Neuroscience*, 1997, 111, 543–551.
- Pallast, E. G. M., Jongbloet, P. H., Straatman, H. M., and Zeilhuis, G. A. Excess of seasonality of births among patients with schizophrenia and seasonal otopathy. *Schizophrenia Bulletin*, 1994, 20, 269–276.
- Patapadimitriou, G. N., Christodoulou, G. N., Katsouyanni, K., and Stefanis, C. N. Therapy and prevention of affective illness by total sleep deprivation. *Journal of the Affective Disorders*, 1993, 27, 107–116.
- Papez, J. W. A proposed mechanism of emotion. *Archives of Neurology and Psychiatry*, 1937, 38, 725–744.
- Pascoe, J. P., and Kapp, B. S. Electrophysiological characteristics of amygdaloid central nucleus neurons during Pavlovian fear conditioning in the rabbit. *Behavioural Brain Research*, 1985, 16, 117–133.
- Pattattucci, A. M. L., and Hamer, D. H. Development and familiarity of sexual orientation in females. *Behavior Genetics*, 1995, 25, 407–420.
- Patterson, K., and Ralph, M. A. L. Selective disorders of reading? *Current Opinion in Neurobiology*, 1999, 9, 235–239.
- Paulesu, E., Démonet, J.-F., Fazio, F., McCrory, E., Chanoine, V., Brunswick, N., Cappa, S. F., Cossu, G., Habib, M., Frith, C. D., and Frith, U. *Science*, 2001, 291, 2165–2167.
- Pauls, D. L., and Leckman, J. F. The inheritance of Gilles de la Tourette's syndrome and associated behaviors. *New England Journal of Medicine*, 1986, 315, 993–997.
- Pauls, D. L., Towbin, K. E., Leckman, J. F., Zahner, G. E., and Cohen, D. J. Gilles de la Tourette's syndrome and obsessive-compulsive disorder. Evidence supporting a genetic relationship. *Archives of General Psychiatry*, 1986, 43, 1180–1182.
- Peck, B. K., and Vanderwolf, C. H. Effects of raphe stimulation on hippocampal and neocortical activity and behaviour. *Brain Research*, 1991, 568, 244–252.
- Pedersen-Bjergaard, U., Host, U., Kelbaek, H., Schifter, S., Rehfeld, J. F., Faber, J., and Christensen, N. J. Influence of meal composition on postprandial peripheral plasma concentrations of vasoactive peptides in man. *Scandinavian Journal of Clinical and Laboratory Investigation*, 1996, 56, 497–503.
- Pelleymounter, M. A., Cullen, M. J., Baker, M. B., Hecht, R., Winters, D., Boone, T., and Collins, F. Effects of the obese gene product on body weight regulation in ob/ob mice. *Science*, 1995, 269, 540–543.
- Penfield, W., and Perot, P. The brain's record of auditory and visual experience: A final summary and discussion. *Brain*, 1963, 86, 595–697.
- Pennington, B. F., Gilger, J. W., Pauls, D., Smith, S. A., Smith, S. D., and DeFries, J. C. Evidence for major gene transmission of developmental dyslexia. *Journal of the American Medical Association*, 1991, 266, 1527–1534.
- Perlmutter, S. J., Garvey, M. A., Castellanos, X., Mittleman, B. B., Giedd, J., Rapoport, J. L., and Swedo, S. E. A case of pediatric autoimmune neuropsychiatric disorders associated with streptococcal infections. *American Journal of Psychiatry*, 1998, 155, 1592–1598.
- Pert, C. B., Snowman, A. M., and Snyder, S. H. Localization of opiate receptor binding in presynaptic membranes of rat brain. *Brain Research*, 1974, 70, 184–188.
- Petersen, S. E., Fox, P. T., Snyder, A. Z., and Raichle, M. E. Activation of extrastriate and frontal cortical areas by visual words and word-like stimuli. *Science*, 1990, 249, 1041–1044.
- Petit, H. O., and Justice, J. B. Dopamine in the nucleus accumbens during cocaine self-administration as studied by in vivo microdialysis. *Pharmacology, Biochemistry and Behavior*, 1989, 23, 899–904.
- Petre-Quadens, O., and De Lee, C. Eye movement frequencies and related paradoxical sleep cycles: Developmental changes. *Chronobiologia*, 1974, 1, 347–355.
- Petryshen, T. L., Kaplan, B. J., Fu, L. M., de French, N. S., Tobias, R., Hughes, M., and Leigh, F. L. Evidence for a susceptibility locus on chromosome 6q influencing phonological coding dyslexia. *American Journal of Medical Genetics*, 2001, 105, 507–517.
- Peuskens, H., Sunaert, S., Dupont, P., Van Hecke, P., and Orban, G. A. Human brain regions involved in heading estimation. *Journal of Neuroscience*, 2001, 21, 2451–2461.
- Pfaff, D. W., and Keiner, M. Atlas of estradiol-concentrating cells in the central nervous system of the female rat. *Journal of Comparative Neurology*, 1973, 151, 121–158.
- Pfaff, D. W., and Sakuma, Y. Deficit in the lordosis reflex of female rats caused by lesions in the ventromedial nucleus of the hypothalamus. *Journal of Physiology*, 1979, 288, 203–210.
- Pfau, J. G., Kleopoulos, S. P., Mobbs, C. V., Gibbs, R. B., and Pfaff, D. W. Sexual stimulation activates c-fos within estrogen-concentrating regions of the female rat forebrain. *Brain Research*, 1993, 624, 253–267.
- Phiel, C. J., and Klein, P. S. Molecular targets of lithium action. *Annual Review of Pharmacology and Toxicology*, 2001, 41, 789–813.
- Phillips, D. P., and Farmer, M. E. Acquired word deafness, and the temporal grain of sound representation in the primary auditory cortex. *Behavioural Brain Research*, 1990, 40, 85–94.
- Phillips, M. I., and Felix, D. Specific angiotensin II receptive neurons in the cat subfornical organ. *Brain Research*, 1976, 109, 531–540.
- Phillips, M. L., Young, A. W., Scott, S. K., Calder, A. J., Andrew, G., Giampietro, V., Williams, S. C. R., Bullmore, E. T., Brammer, M., and Gray, J. A. Neural responses to facial and vocal expressions of fear and disgust. *Proceedings of the Royal Society of London [B]*, 1998, 265, 1809–1817.
- Phillips, R. G., and LeDoux, J. E. Differential contribution of amygdala and hippocampus to cued and contextual fear conditioning. *Behavioral Neuroscience*, 1992, 106, 274–285.
- Piccirillo, J. F., Duntley, S., and Schotland, H. Obstructive sleep apnea. *Journal of the American Medical Association*, 2000, 284, 1492–1494.
- Pickar, D. Prospects for pharmacotherapy of schizophrenia. *Lancet*, 1995, 345, 557–562.
- Pickles, J. O., and Corey, D. P. Mechanoelectrical transduction by hair cells. *Trends in Neuroscience*, 1992, 15, 254–259.
- Pierce, K., Müller, R.-A., Ambrose, J., Allen, G., and Courchesne, E. Face processing occurs outside the fusiform "face area" in autism: Evidence from functional MRI. *Brain*, 2001, 124, 2059–2073.
- Pijl, S., and Schwarz, D. W. F. Intonation of musical intervals by musical intervals by deaf subjects stimulated with single bipolar cochlear implant electrodes. *Hearing Research*, 1995a, 89, 203–211.
- Pijl, S., and Schwartz, D. W. F. Melody recognition and musical interval perception by deaf subjects stimulated with electrical pulse trains through single cochlear implant electrodes. *Journal of the Acoustical Society of America*, 1995b, 98, 886–895.
- Pilleri, G. The blind Indus dolphin, *Platanista indi*. *Endeavours*, 1979, 3, 48–56.
- Pitkänen, A., Savander, V., and LeDoux, J. E. Organization of intra-amygdaloid circuits: An emerging framework for understanding functions of the amygdala. *Trends in Neuroscience*, 1997, 20, 517–523.
- Pleim, E. T., and Barfield, R. J. Progesterone versus estrogen facilitation of female sexual behavior by intracranial administration to female rats. *Hormones and Behavior*, 1988, 22, 150–159.
- Poggio, G. F., and Poggio, T. The analysis of stereopsis. *Annual Review of Neuroscience*, 1984, 7, 379–412.
- Polymeropoulos, M. H., Higgins, J. J., Golbe, L. I., Johnson, W. G., Ide, S. E., Di Iorio, G., Sanges, G., Stenoos, E. S., Pho, L. T., Schaffer, A. A., Lazzarini, A. M., Nussbaum, R. L., and Duvoisin, R. C. Mapping of a gene for Parkinson's disease to chromosome 4q21-q23. *Science*, 1996, 274, 1197–1199.
- Pomp, D., and Nielsen, M. K. Quantitative genetics of energy balance: Lessons from animal models. *Obesity Research*, 1999, 7, 106–110.
- Porkka-Heiskanen, T., Strecker, R. E., and McCarley, R. W. Brain site-specificity of extracellular adenosine concentration changes during sleep deprivation and spontaneous

- sleep: An *in vivo* microdialysis study. *Neuroscience*, 2000, 99, 507–517.
- Portas, C. M., Thakkar, M., Rainnie, D., and McCarley, R. W. Microdialysis perfusion of 8-hydroxy-2-(di-n-propylamino)tetralin (8-OH-DPAT) in the dorsal raphe nucleus decreases serotonin release and increases rapid eye movement sleep in the freely moving cat. *Journal of Neuroscience*, 1996, 16, 2820–2828.
- Post, R. M., Ballenger, J. C., Uhde, T., and Bunney, W. Efficacy of carbamazepine in manic-depressive illness: Implications for underlying mechanisms. In *Neurobiology of Mood Disorders*, edited by R. M. Post and C. Ballenger. Baltimore, Md.: Williams and Wilkins, 1984.
- Powers, J. B., and Winans, S. S. Vomeronasal organ: Critical role in mediating sexual behavior of the male hamster. *Science*, 1975, 187, 961–963.
- Price, C. The functional anatomy of word comprehension and production. *Trends in Cognitive Science*, 1998, 2, 281–288.
- Price, D. B. Psychological and neural mechanisms of the affective dimension of pain. *Science*, 2000, 288, 1769–1772.
- Price, D. L., and Sisodia, S. S. Mutant genes in familial Alzheimer's disease and transgenic models. *Annual Review of Neuroscience*, 1998, 21, 479–505.
- Price, L. H., and Heninger, G. R. Drug therapy: Lithium in the treatment of mood disorders. *New England Journal of Medicine*, 1994, 331, 591–598.
- Price, R. A., and Gottesman, I. I. Body fat in identical twins reared apart: Roles for genes and environment. *Behavioral Genetics*, 1991, 21, 1–7.
- Pritchard, T. C., Hamilton, R. B., Morse, J. R., and Norgren, R. Projections of thalamic gustatory and lingual areas in the monkey, *Macaca fascicularis*. *Journal of Comparative Neurology*, 1986, 244, 213–228.
- Provencio, I., Rodriguez, I. R., Jiang, G., Hayes, W. P., Moreira, E. F., and Rollag, M. D. A novel human opsin in the inner retina. *Journal of Neuroscience*, 2000, 20, 600–605.
- Proverbio, A. M., Lilli, S., Semenza, C., and Zani, A. ERP indexes of functional differences in brain activation during proper and common names retrieval. *Neuropsychologia*, 2001, 39, 815–827.
- Prusiner, S. B. Novel proteinaceous infectious particles cause scrapie. *Science*, 1982, 216, 136–144.
- Pulvermüller, F. Words in the brain's language. *Behavioral and Brain Sciences*, 1999, 22, 253–279; Peer commentary and author's replies, pp. 280–336.
- Pulvermüller, F., Harle, M., and Hummel, F. Neurophysiological distinction of verb categories. *Neuroreport*, 2000, 11, 2789–2793.
- Qu, D., Ludwig, D. S., Gammeltoft, S., Piper, M., Pelleymounter, M. A., Cullen, M. J., Mathes, W. F., Przybeck, R., Kanarek, R., and Maratos-Flier, E. A role for melanin concentrating hormone in the central regulation of feeding behaviour. *Nature*, 1996, 380, 243–247.
- Quillen, E. W., Keil, L. C., and Reid, I. A. Effects of baroreceptor denervation on endocrine and drinking responses to caval constriction in dogs. *American Journal of Physiology*, 1990, 259, R618–R626.
- Quirk, G. J., Repa, J. C., and LeDoux, J. E. Fear conditioning enhances short-latency auditory responses of lateral amygdala neurons: Parallel recordings in the freely behaving rat. *Neuron*, 1995, 15, 1029–1039.
- Raine, A., Lenz, T., Bihrl, S., LaCasse, L., and Colletti, P. Reduced prefrontal gray matter volume and reduced autonomic activity in antisocial personality disorder. *Archives of General Psychiatry*, 2002, 57, 119–127.
- Raine, A., Meloy, J. R., Bihrl, S., Stoddard, J., LaCasse, L., and Buchsbaum, M. S. Reduced prefrontal and increased subcortical brain functioning assessed using positron emission tomography in predatory and affective murderers. *Behavioral Science and the Law*, 1998, 16, 319–332.
- Rainville, P., Duncan, G. H., Price, D. D., Carrier, B., and Bushnell, M. C. Pain affect encoded in human anterior cingulate but not somatosensory cortex. *Science*, 1997, 277, 968–971.
- Rakic, P. Mode of cell migration to the superficial layers of fetal monkey neocortex. *Journal of Comparative Neurology*, 1972, 145, 61–83.
- Rakic, P. Specification of cerebral cortical areas. *Science*, 1988, 241, 170–176.
- Raleigh, M. J., McGuire, M. T., Brammer, G. L., Pollack, D. B., and Yuwiler, A. Serotonergic mechanisms promote dominance acquisition in adult male rhesus monkeys. *Brain Research*, 1991, 559, 181–190.
- Ralph, M. R., and Lehman, M. N. Transplantation: A new tool in the analysis of the mammalian hypothalamic circadian pacemaker. *Trends in Neuroscience*, 1991, 14, 362–366.
- Ramirez, I. Why do sugars taste good? *Neuroscience and Biobehavioral Reviews*, 1990, 14, 125–134.
- Rapin, I. Autistic regression and disintegrative disorder: How important the role of epilepsy? *Seminars in Pediatric Neurology*, 1995, 2, 278–285.
- Rapin, I. Autism in search of a home in the brain. *Neurology*, 1999, 52, 902–904.
- Rapoport, J. L. Recent advances in obsessive-compulsive disorder. *Neuropsychopharmacology*, 1991, 5, 1–10.
- Rapoport, J. L., Ryland, D. H., and Kriete, M. Drug treatment of canine acral lick: An animal model of obsessive-compulsive disorder. *Archives of General Psychiatry*, 1992, 49, 517–521.
- Rasmusson, D. D., Clow, K., and Szerb, J. C. Modification of neocortical acetylcholine release and electroencephalogram desynchronization due to brain stem stimulation by drugs applied to the basal forebrain. *Neuroscience*, 1994, 60, 665–677.
- Ratcliff, G., and Newcombe, F. Object recognition: Some deductions from the clinical evidence. In *Normality and Pathology in Cognitive Functions*, edited by A. W. Ellis. London: Academic Press, 1982.
- Ratnasurya, R. H., Eisler, I., Szmukler, G. I., and Russell, G. F. M. Anorexia nervosa: Outcome and prognostic factors after 20 years. *British Journal of Psychiatry*, 1991, 158, 495–502.
- Rauschecker, J. P., and Tian, B. Mechanisms and streams for processing of "what" and "where" in auditory cortex. *Proceedings of the National Academy of Science (USA)*, 2000, 97, 11800–11806.
- Ravussin, E., Valencia, M. E., Esparza, J., Bennett, P. H., Schulz, L. O. Effects of a traditional lifestyle on obesity in Pima Indians. *Diabetes Care*, 1994, 17, 1067–1074.
- Reber, P. J., and Squire, L. R. Encapsulation of implicit and explicit memory in sequence learning. *Journal of Cognitive Neuroscience*, 1998, 10, 248–263.
- Recer, P. Study: English is a factor in dyslexia. Washington, DC: Associated Press, 16 March 2001.
- Reed, C. L., Caselli, R. J., and Farah, M. J. Tactile agnosia: Underlying impairment and implications for normal tactile object recognition. *Brain*, 1996, 119, 875–888.
- Regan, B. C., Julliot, C., Simmen, B., Vienot, F., Charles-Dominique, P., and Mollon, J. D. Fruits, foliage and the evolution of primate colour vision. *Philosophical Transactions of the Royal Society of London [B]*, 2001, 356, 229–238.
- Reid, L. D. Endogenous opioids and alcohol dependence: Opioid alkaloids and the propensity to drink alcoholic beverages. *Alcohol*, 1996, 13, 5–11.
- Rempel-Clower, N. L., Zola, S. M., Squire, L. R., and Amaral, D. G. Three cases of enduring memory impairment after bilateral damage limited to the hippocampal formation. *Journal of Neuroscience*, 1996, 16, 5233–5255.
- Reppert, S. M., and Weaver, D. R. Molecular analysis of mammalian circadian rhythms. *Annual Review of Physiology*, 2001, 63, 647–676.
- Resnick, H. S., Yehuda, R., Pitman, R. K., and Foy, D. W. Effect of previous trauma on acute plasma cortisol level following rape. *American Journal of Psychiatry*, 1995, 152, 1675–1677.
- Ressler, K. J., Sullivan, S. L., and Buck, L. A molecular dissection of spatial patterning in the olfactory system. *Current Opinion in Neurobiology*, 1994a, 4, 588–596.
- Ressler, K. J., Sullivan, S. L., and Buck, L. Information coding in the olfactory system: Evidence for a stereotyped and highly organized epitope map in the olfactory bulb. *Cell*, 1994b, 79, 1245–1255.
- Rhees, R. W., Shryne, J. E., and Gorski, R. A. Termination of the hormone-sensitive period for differentiation of the sexually dimorphic nucleus of the preoptic area in male and female rats. *Developmental Brain Research*, 1990, 52, 17–23.
- Riemann, D., Berger, M., and Voderholzer, U. Sleep and depression—Results from psychobiological studies: An overview. *Biological Psychiatry*, 2001, 57, 67–103.
- Riemann, D., König, A., Hohagen, F., Kiemen, A., Voderholzer, U., Backhaus, J., Bunz, J., Wesiak, B., Hermie, L., and Berger, M. How to preserve the antidepressive effect of sleep deprivation: A comparison of sleep phase advance and sleep phase delay. *European Archives of Psychiatry and Clinical Neuroscience*, 1999, 249, 231–237.
- Riemann, D., Wiegand, M., and Berger, M. Are there predictors for sleep deprivation response in depressive patients? *Biological Psychiatry*, 1991, 29, 707–710.
- Ritter, R. C., Brenner, L., and Yox, D. P. Participation of vagal sensory neurons in putative satiation signals from the upper gastrointestinal tract. In *Neuroanatomy and Physiology of Abdominal Vagal Afferents*, edited by S. Ritter, R. C. Ritter, and C. D. Barnes. Boca Raton, Fla.: CRC Press, 1992.
- Ritter, R. C., Slusser, P. G., and Stone, S. Glucoreceptors controlling feeding and blood

- glucose: Location in the hindbrain. *Science*, 1981, 213, 451–453.
- Ritter, S., and Taylor, J. S. Vagal sensory neurons are required for lipopivic but not glucopivic feeding in rats. *American Journal of Physiology*, 1990, 258, R1395–R1401.
- Robbins, L. N., Helzer, J. E., Weissman, M. M., Orvaschel, H., Gruenberg, E., Burke, J. D., and Regier, D. A. Lifetime prevalence of specific psychiatric disorders in three sites. *Archives of General Psychiatry*, 1984, 41, 949–958.
- Robertson, G. S., Pfau, J. G., Atkinson, L. J., Matsumura, H., Phillips, A. G., and Fibiger, H. C. Sexual behavior increases c-fos expression in the forebrain of the male rat. *Brain Research*, 1991, 564, 352–357.
- Robinson, T. E., and Berridge, K. C. The neural basis of drug craving: An incentive-sensitization theory of addiction. *Brain Research Reviews*, 1993, 18, 247–291.
- Robinson, T. E., Gorni, G., Mitton, E., and Kolb, B. Cocaine self-administration alters the morphology of dendrites and dendritic spines in the nucleus accumbens and neocortex. *Synapse*, 2001, 39, 256–266.
- Rodieck, R. W. *The First Steps in Seeing*. Sunderland, MA: Sinauer Associates, 1998.
- Rodier, P. M., Ingram, J. L., Tisdale, B., Nelson, S., and Romano, J. Embryological origin for autism: Developmental anomalies of the cranial nerve motor nuclei. *Journal of Comparative Neurology*, 1996, 370, 247–261.
- Roeltgen, D. P., Rothi, L. H., and Heilman, K. M. Linguistic semantic agraphia: A dissociation of the lexical spelling system from semantics. *Brain and Language*, 1986, 27, 257–280.
- Roffwarg, H. P., Muzio, J. N., and Dement, W. C. Ontogenetic development of human sleep-dream cycle. *Science*, 1966, 152, 604–619.
- Rogan, M. T., and LeDoux, J. E. LTP is accompanied by commensurate enhancement of auditory-evoked responses in a fear conditioning circuit. *Neuron*, 1995, 15, 127–136.
- Rogers, J., Kirby, L. C., Hempelman, S. R., Beery, D. L., McGeer, P. L., Kaszniak, A. W., Zalinshi, J., Cofield, M., Mansukhani, L., Willson, P., and Kogan, F. Clinical trial of indomethacin in Alzheimer's disease. *Neurology*, 1993, 43, 1609–1611.
- Roland, P. E. Metabolic measurements of the working frontal cortex in man. *Trends in Neurosciences*, 1984, 7, 430–435.
- Rolls, E. T. Feeding and reward. In *The Neural Basis of Feeding and Reward*, edited by B. G. Hobel and D. Novin. Brunswick, Me.: Haer Institute, 1982.
- Rolls, E. T. A theory of hippocampal function in memory. *Hippocampus*, 1996, 6, 601–620.
- Rolls, E. T., and Baylis, G. C. Size and contrast have only small effects on the responses to faces of neurons in the cortex of the superior temporal sulcus of the monkey. *Experimental Brain Research*, 1986, 65, 38–48.
- Rolls, E. T., Murzi, E., Yaxley, S., Thorpe, S. J., and Simpson, S. J. *Brain Research*, 1986, 368, 79–86.
- Rolls, E. T., Yaxley, S., and Sienkiewicz, Z. J. Gustatory responses of single neurons in the orbitofrontal cortex of the macaque monkey. *Journal of Neurophysiology*, 1990, 64, 1055–1066.
- Romanski, L. M., Tian, B., Fritz, J., Mishkin, M., Goldman-Rakic, P. S., and Rauschecker, J. P. Dual streams of auditory afferents target multiple domains in the primate prefrontal cortex. *Nature Neuroscience*, 1999, 12, 1131–1136.
- Rose, J. D. Changes in hypothalamic neuronal function related to hormonal induction of lordosis in behaving hamsters. *Physiology and Behavior*, 1990, 47, 1201–1212.
- Rosenblatt, J. S., Hazelwood, S., and Poole, J. Maternal behavior in male rats: effects of medial preoptic area lesions and presence of maternal aggression. *Hormones and Behavior*, 1996, 30, 201–215.
- Rosenthal, D. A program of research on heredity in schizophrenia. *Behavioral Science*, 1971, 16, 191–201.
- Rosenthal, N. E., Sack, D. A., Gillin, C., Lewy, A. J., Goodwin, F. K., Davenport, Y., Mueller, P. S., Newsome, D. A., and Wehr, T. A. Seasonal affective disorder: A description of the syndrome and preliminary findings with light therapy. *Archives of General Psychiatry*, 1984, 41, 72–80.
- Rosenthal, N. E., Sack, D. A., James, S. P., Parry, B. L., Mendelson, W. B., Tamarkin, L., and Wehr, T. A. Seasonal affective disorder and phototherapy. *Annals of the New York Academy of Sciences*, 1985, 453, 260–269.
- Roses, A. D. A model for susceptibility polymorphisms for complex diseases: Apolipoprotein E and Alzheimer disease. *Neurogenetics*, 1997, 1, 3–11.
- Rothman, S. M., and Olney, J. W. Excitotoxicity and the NMDA receptor. *Trends in Neurosciences*, 1987, 10, 299–302.
- Routtenberg, A. "Self-starvation" of rats living in activity wheels: Adaptation effects. *Journal of Comparative Psychology*, 1968, 66, 234–238.
- Routtenberg, A., and Malsbury, C. Brainstem pathways of reward. *Journal of Comparative and Physiological Psychology*, 1969, 68, 22–30.
- Roy, A., De Jong, J., and Linnoila, M. Cerebrospinal fluid monoamine metabolites and suicidal behavior in depressed patients. *Archives of General Psychiatry*, 1989, 46, 609–612.
- Rubin, B. S., and Barfield, R. J. Priming of estrous responsiveness by implants of 17B-estradiol in the ventromedial hypothalamic nucleus of female rats. *Endocrinology*, 1980, 106, 504–509.
- Rubin, L. L., and Staddon, J. M. The cell biology of the blood-brain barrier. *Annual Review of Neuroscience*, 1999, 22, 111–128.
- Rusak, B., and Morin, L. P. Testicular responses to photoperiod are blocked by lesions of the suprachiasmatic nuclei in golden hamsters. *Biology of Reproduction*, 1976, 15, 366–374.
- Rusak, B., McNaughton, L., Robertson, H. A., and Hunt, S. P. Circadian variation in photic regulation of immediate-early gene mRNAs in rat suprachiasmatic nucleus cells. *Molecular Brain Research*, 1992, 14, 124–130.
- Rusak, B., Robertson, H. A., Wisden, W., and Hunt, S. P. Light pulses that shift rhythms induce gene expression in the suprachiasmatic nucleus. *Science*, 1990, 248, 1237–1240.
- Russchen, F. T., Amaral, D. G., and Price, J. L. The afferent connections of the substantia innominata in the monkey, *Macaca fascicularis*. *Journal of Comparative Neurology*, 1986, 242, 1–27.
- Russell, G. F. M., and Treasure, J. The modern history of anorexia nervosa: An interpretation of why the illness has changed. *Annals of the New York Academy of Sciences*, 1989, 575, 13–30.
- Russell, M. J. Human olfactory communication. *Nature*, 1976, 260, 520–522.
- Russell, M. J., Switz, G. M., and Thompson, K. Olfactory influences on the human menstrual cycle. Paper presented at the meeting of the American Association for the Advancement of Science, San Francisco, June 1977.
- Ryback, R. S., and Lewis, O. F. Effects of prolonged bed rest on EEG sleep patterns in young, healthy volunteers. *Electroencephalography and Clinical Neurophysiology*, 1971, 31, 395–399.
- Saayman, G. S. Aggressive behaviour in free-ranging chacma baboons (*Papio ursinus*). *Journal of Behavioral Science*, 1971, 1, 77–83.
- Sackheim, H. A. Lateral asymmetry in bodily response to hypnotic suggestion. *Biological Psychiatry*, 1982, 17, 437–447.
- Sackheim, H. A., and Gur, R. C. Lateral asymmetry in intensity of emotional expression. *Neuropsychologia*, 1978, 16, 473–482.
- Sackheim, H. A., Paulus, D., and Weiman, A. L. Classroom seating and hypnotic susceptibility. *Journal of Abnormal Psychology*, 1979, 88, 81–84.
- Saffran, E. M., Marin, O. S. M., and Yenikomshian, G. H. An analysis of speech perception in word deafness. *Brain and Language*, 1976, 3, 209–228.
- Saffran, E. M., Schwartz, M. F., and Marin, O. S. M. Evidence from aphasia: Isolating the components of a production model. In *Language Production*, edited by B. Butterworth. London: Academic Press, 1980.
- Sagvolden, T., Aase, H., Zeiner, P., and Berger, D. Altered reinforcement mechanisms in attention-deficit/hyperactivity disorder. *Behavioural Brain Research*, 1998, 94, 61–71.
- Sagvolden, T., and Sergeant, J. A. Attention deficit/hyperactivity disorder: From brain dysfunctions to behaviour. *Behavioural Brain Research*, 1998, 94, 1–10.
- Sahu, A., Kalra, P. S., and Kalra, S. P. Food deprivation and ingestion induce reciprocal changes in neuropeptide Y concentrations in the paraventricular nucleus. *Peptides*, 1988, 9, 83–86.
- Sakai, F., Meyer, J. S., Karacan, I., Derman, S., and Yamamoto, M. Normal human sleep: Regional cerebral haemodynamics. *Annals of Neurology*, 1979, 7, 471–478.
- Sakai, K. Some anatomical and physiological properties of pontomesencephalic tegmental neurons with special reference to the PGO waves and postural atonia during paradoxical sleep in the cat. In *The Reticular Formation Revisited*, edited by J. A. Hobson and M. A. Brazier. New York: Raven Press, 1980.
- Sakai, K., and Jouvet, M. Brain stem PGO-on cells projecting directly to the cat dorsal lateral geniculate nucleus. *Brain Research*, 1980, 194, 500–505.
- Sakuma, Y., and Pfaff, D. W. Convergent effects of lordosis-relevant somatosensory and hypothalamic influences on central gray cells in the rat mesencephalon. *Experimental Neurology*, 1980a, 70, 269–281.
- Sakuma, Y., and Pfaff, D. W. Excitability of female rat central gray cells with medullary projections: Changes produced by hypothalamic stimulation and estrogen treatment. *Journal of Neurophysiology*, 1980b, 44, 1012–1023.
- Sakuma, Y., and Pfaff, D. W. Facilitation of female reproductive behavior from mesencephalic central grey in the rat. *American Journal of Physiology*, 1979a, 237, R278–R284.

- Sakuma, Y., and Pfaff, D. W. Mesencephalic mechanisms for integration of female reproductive behavior in the rat. *American Journal of Physiology*, 1979b, 237, R285–R290.
- Sakurai, T., Amemiya, A., Ishii, M., Matsuzaki, I., Chemelli, R. M., Tanaka, H., Williams, S. C., Richardson, J. A., Kozlowski, G. P., Wilson, S., Arch, J. R., Buckingham, R. E., Haynes, A. C., Carr, S. A., Annan, R. S., McNulty, D. E., Liu, W. S., Terrell, J. A., Elshourbagy, N. A., Bergsma, D. J., and Yanagisawa, M. Orexins and orexin receptors: A family of hypothalamic neuropeptides and G protein-coupled receptors that regulate feeding behavior. *Cell*, 1998, 20, 573–585.
- Sakurai, Y., Ichikawa, Y., and Mannen, T. Pure alexia from a posterior occipital lesion. *Neurology*, 2001, 56, 778–781.
- Sakurai, Y., Momose, T., Iwata, M., Sudo, Y., Ohtomo, K., and Kanazawa, I. Different cortical activity in reading of Kanji words, Kana words and Kana nonwords. *Cognitive Brain Research*, 2000, 9, 111–115.
- Sakurai, Y., Sakai, K., Sakuta, M., and Iwata, M. Naming difficulties in alexia with agraphia for kanji after a left posterior inferior temporal lesion. *Journal of Neurology, Neurosurgery, and Psychiatry*, 1994, 57, 609–613.
- Salamone, J. D. Complex motor and sensorimotor function of striatal and accumbens dopamine: Involvement in instrumental behavior processes. *Psychopharmacology*, 1992, 107, 160–174.
- Saller, C. F., and Stricker, E. M. Hyperphagia and increased growth in rats after intraventricular injection of 5,7-dihydroxytryptamine. *Science*, 1976, 192, 385–387.
- Samson, H. H., Hodge, C. W., Tolliver, G. A., and Haraguchi, M. Effect of dopamine agonists and antagonists on ethanol reinforced behavior: The involvement of the nucleus accumbens. *Brain Research Bulletin*, 1993, 30, 133–141.
- Sanders, S. K., and Shekhar, A. Anxiolytic effects of chlordiazepoxide blocked by injection of GABA_A and benzodiazepine receptor antagonists in the region of the anterior basolateral amygdala of rats. *Biological Psychiatry*, 1995, 37, 473–476.
- Saper, C. B., Chou, T. C., and Scammell, T. E. The sleep switch: Hypothalamic control of sleep and wakefulness. *Trends in Neuroscience*, 2001, 24, 726–731.
- Sapolsky, R. *Stress, the Aging Brain and the Mechanisms of Neuron Death*. Cambridge, Mass.: MIT Press, 1992.
- Sapolsky, R. M. Social subordination as a marker of hypercortisolism: Some unexpected subtleties. *Annals of the New York Academy of Science*, 1995, 771, 626–639.
- Sassenrath, E. N., Powell, T. E., and Hendrickx, A. G. Perimenstrual aggression in groups of female rhesus monkeys. *Journal of Reproduction and Fertility*, 1973, 34, 509–511.
- Sastré, M., Dewachter, I., Landreth, G. E., Willson, T. M., Klockgether, T., van Leuven, F., and Heneka, M. T. Nonsteroidal anti-inflammatory drugs and peroxisome proliferators-activated receptor-gamma agonists modulate immunostimulated processing of amyloid precursor protein through regulation of beta-secretase. *Journal of Neuroscience*, 2003, 23, 9796–9804.
- Saudou, F., Amara, D. A., Dierich, A., Lemeur, M., Ramboz, S., Segu, L., Buhot, M. C., and Hen, R. Enhanced aggressive behavior in mice lacking 5-HT_{1B} receptor. *Science*, 1994, 265, 1875–1878.
- Savic, I., Berglund, H., Gulyas, B., and Roland, P. Smelling of odorous sex hormone-like compounds causes sex-differentiated hypothalamic activations in humans. *Neuron*, 2001, 31, 661–668.
- Sawchenko, P. E. Toward a new neurobiology of energy balance, appetite, and obesity: The anatomist weighs in. *Journal of Comparative Neurology*, 1998, 402, 435–441.
- Saxena, S., Brody, A. L., Schwartz, J. M., and Baxter, L. R. Neuroimaging and frontal-subcortical circuitry in obsessive-compulsive disorder. *British Journal of Psychiatry*, 1998, 173, 26–37.
- Scammell, T. E., Estabrooke, I. V., McCarthy, M. T., Chemelli, R. M., Yanagisawa, M., Miller, M. S., and Saper, C. B. Hypothalamic arousal regions are activated during modafinil-induced wakefulness. *Journal of Neuroscience*, 2000, 20, 8620–8628.
- Scammell, T. E., Gerashchenko, D. Y., Mochizuki, T., McCarthy, M. T., Estabrooke, I. V., Sears, C. A., Saper, C. B., Urade, Y., and Hayaishi, O. An adenosine A2a agonist increases sleep and induces Fos in ventrolateral preoptic neurons. *Neuroscience*, 2001, 107, 653–663.
- Scarpace, P. J., Matheny, M., and Tümer, N. Hypothalamic leptin resistance is associated with impaired leptin signal transduction in aged obese rats. *Neuroscience*, 2001, 104, 1111–1117.
- Schenck, C. H., and Mahowald, M. W. Motor dyscontrol in narcolepsy: Rapid-eye-movement (REM) sleep without atonia and REM sleep behavior disorder. *Annals of Neurology*, 1992, 32, 3–10.
- Schenck, C. H., Bundlie, S. R., Ettinger, M. G., and Mahowald, M. W. Chronic behavioral disorders of human REM sleep: A new category of parasomnia. *Sleep*, 1986, 9, 293–308.
- Schenck, C. H., Garcia-Rill, E., Segall, M., Noreen, H., and Mahowald, M. W. HLA class-II genes associated with REM-sleep behavior disorder. *Annals of Neurology*, 1996, 39, 261–263.
- Schenck, C. H., Hurwitz, T. D., and Mahowald, M. W. REM-sleep behavior disorder: An update on a series of 96 patients and a review of the world literature. *Journal of Sleep Research*, 1993, 2, 224–231.
- Schenk, D., Barbour, R., Dunn, W., Gordon, G., Grajeda, H., Guido, T., Hu, K., Huang, J., Johnson-Wood, K., Khan, K., Khodenko, D., Lee, M., Liao, Z., Lieberburg, I., Motter, R., Mutter, L., Soriano, F., Shopp, G., Vasquez, N., Vandervort, C., Walker, S., Wogulis, M., Yednock, T., Games, D., Seubert, P. Immunization with amyloid-beta attenuates Alzheimer-disease-like pathology in the PDAPP mouse. *Nature*, 1999, 400, 173–177.
- Scherschlicht, R., Polc, P., Schneeberger, J., Steiner, M., and Haefely, W. Selective suppression of rapid eye movement sleep (REMS) in cats by typical and atypical anti-depressants. In *Typical and Atypical Antidepressants: Molecular Mechanisms*, edited by E. Costa and G. Racagni. New York: Raven Press, 1982.
- Schiffman, J., Ekstrom, M., LaBrie, J., Schulzinger, F., Sorensen, H., and Mednick, S. Minor physical anomalies and schizophrenia spectrum disorders: A prospective investigation. *American Journal of Psychiatry*, 2002, 159, 238–243.
- Schiffman, S. S., Lockhead, E., and Maes, F. W. Amiloride reduces the taste intensity of Na⁺ and Li⁺ salts and sweeteners. *Proceedings of the National Academy of Sciences, USA*, 1983, 80, 6136–6140.
- Schiller, P. H., and Malpeli, J. G. Properties and tectal projections of monkey retinal ganglion cells. *Journal of Neurophysiology*, 1977, 40, 428–445.
- Schiller, P. H., Sandell, J. H., and Maunsell, J. H. R. Functions of the ON and OFF channels of the visual system. *Nature*, 1986, 322, 824–825.
- Schmidt, M. H., Valatx, J.-L., Sakai, K., Fort, P., and Jouvet, M. Role of the lateral preoptic area in sleep-related erectile mechanisms and sleep generation in the rat. *Journal of Neuroscience*, 2000, 20, 6640–6647.
- Schnabel, J. New Alzheimer's therapy suggested. *Science*, 1993, 260, 1719–1720.
- Schneider, B., Muller, M. J., and Philipp, M. Mortality in affective disorders. *Journal of the Affective Disorders*, 2001, 65, 263–274.
- Schrauwen, P., Xia, J., Bogardus, C., Pratley, R. E., and Ravussin, E. Skeletal muscle uncoupling protein 3 expression is a determinant of energy expenditure in Pima Indians. *Diabetes*, 1999, 48, 146–149.
- Schuman, E. R., and Madison, D. V. A requirement for the intercellular messenger nitric oxide in long-term potentiation. *Science*, 1991, 254, 1503–1506.
- Schwartz, M. F., Marin, O. S. M., and Saffran, E. M. Dissociations of language function in dementia: A case study. *Brain and Language*, 1979, 7, 277–306.
- Schwartz, M. F., Saffran, E. M., and Marin, O. S. M. The word order problem in agrammatism. I. Comprehension. *Brain and Language*, 1980, 10, 249–262.
- Schwartz, M. W., Peskind, E., Raskind, M., Boyko, E. J., and Porte, D. Cerebrospinal fluid leptin levels: Relationship to plasma levels and to adiposity in humans. *Nature Medicine*, 1996, 2, 589–593.
- Schwartz, W. J., and Gainer, H. Suprachiasmatic nucleus: Use of ¹⁴C-labelled deoxyglucose uptake as a functional marker. *Science*, 1977, 197, 1089–1091.
- Schwarzkopf, S. B., Nasrallah, H. A., Olson, S. C., Coffman, J. A., and McLaughlin, J. A. Perinatal complications and genetic loading in schizophrenia: Preliminary findings. *Psychiatry Research*, 1989, 27, 233–239.
- Scott, S. K., Blank, E. C., Rosen, S., and Wise, R. J. S. Identification of a pathway for intelligible speech in the left temporal lobe. *Brain*, 2000, 123, 2400–2406.
- Scott, T. R., and Plata-Salamon, C. R. Coding of taste quality. In *Smell and Taste in Health and Disease*, edited by T. N. Getchell. New York: Raven Press, 1991.
- Scoville, W. B., and Milner, B. Loss of recent memory after bilateral hippocampal lesions. *Journal of Neurology, Neurosurgery and Psychiatry*, 1957, 20, 11–21.
- Sedvall, G., Fyrö, B., Gullberg, B., Nybäck, H., Wiesel, F.-A., and Wode-Helgödt, B. Relationship in healthy volunteers between concentrations of monoamine metabolites in cerebrospinal fluid and family history of psychiatric morbidity. *British Journal of Psychiatry*, 1980, 136, 366–374.
- Seidman, L. J., Biederman, J., Weber, W., Hatch, M., and Faraone, S. V. Neuropsychological function in adults with attention-deficit hyperactivity disorder. *Biological Psychiatry*, 1998, 44, 260–268.

- Selye, H. *The Stress of Life*. New York: McGraw-Hill, 1976.
- Semenza, C., and Zettin, M. Evidence from aphasia for the role of proper names as pure referring expressions. *Nature*, 1989, 342, 678–679.
- Sforza, E., Montagna, P., Tinuper, P., Cortelli, P., Avoni, P., Ferrillo, F., Petersen, R., Gambetti, P., and Lagaresi, E. Sleep-wake cycle abnormalities in fatal familial insomnia: Evidence of the role of the thalamus in sleep regulation. *Electroencephalography and Clinical Neurophysiology*, 1995, 94, 398–405.
- Shallice, T. Phonological agraphia and the lexical route in writing. *Brain*, 1981, 104, 413–429.
- Sham, P. C., O'Callaghan, E., Takei, N., Murray, G. K., Hare, E. H., and Murray, R. M. Schizophrenia following pre-natal exposure to influenza epidemics between 1939 and 1960. *British Journal of Psychiatry*, 1992, 160, 461–466.
- Shapiro, L. E., Leonard, C. M., Sessions, C. E., Dewsbury, D. A., and Insel, T. R. Comparative neuroanatomy of the sexually dimorphic hypothalamus in monogamous and polygamous voles. *Brain Research*, 1991, 541, 232–240.
- Sharp, F. R., Sagar, S. M., Hicks, K., Lowenstein, D., and Hisanaga, K. C-fos mRNA, Fos, and Fos-related antigen induction by hypertonic saline and stress. *Journal of Neuroscience*, 1991, 11, 2321–2331.
- Shastry, B. S. Schizophrenia: A genetic perspective (review). *Internal Journal of Molecular Medicine*, 2002, 9, 207–212.
- Shaywitz, B. A., Shaywitz, S. E., Pugh, K. R., Mencl, W. E., Fulbright, R. K., Skudlarski, P., Constable, R. T., Marchione, K. E., Fletcher, J. M., Lyon, G. R., and Gore, J. C. Disruption of posterior brain systems for reading in children with developmental dyslexia. *Biological Psychiatry*, 2002, 52, 101–110.
- Shearman, L. P., Sriram, S., Weaver, D. R., Maywood, E. S., Chaves, I., Zheng, B., Kume, K., Lee, C. C., van der Horst, G. T., Hastings, M. H., and Reppert, S. M. Interacting molecular loops in the mammalian circadian clock. *Science*, 2000, 288, 1013–1019.
- Shepherd, G. M. Discrimination of molecular signals by the olfactory receptor neuron. *Neuron*, 1994, 13, 771–790.
- Sher, A. E. Surgery for obstructive sleep apnea. *Progress in Clinical Biology Research*, 1990, 345, 407–415.
- Sher, L., Goldman, D., Ozaki, N., and Rosenthal, N. E. The role of genetic factors in the etiology of seasonal affective disorder and seasonality. *Journal of Affective Disorders*, 1999, 53, 203–210.
- Sherin, J. E., Elmquist, J. K., Torrealba, F., and Saper, C. B. Innervation of histaminergic tuberomammillary neurons by GABAergic and galaninergic neurons in the ventrolateral preoptic nucleus of the rat. *Journal of Neuroscience*, 1998, 18, 4705–4721.
- Sherin, J. E., Shiromani, P. J., McCarley, R. W., and Saper, C. B. Activation of ventrolateral preoptic neurons during sleep. *Science*, 1996, 271, 216–219.
- Sherry, D. F., Jacobs, L. F., and Gaulin, S. J. C. Spatial memory and adaptive specialization of the hippocampus. *Trends in Neuroscience*, 1992, 15, 298–303.
- Shi, S.-H., Hayashi, Y., Petralia, R. S., Zaman, S. H., Wenthold, R. J., Svoboda, K., and Malinow, R. Rapid spine delivery and redistribution of ampa receptors after synaptic NMDA receptor activation. *Science*, 1999, 284, 1811–1816.
- Shiffren, J. L., Braunstein, G. D., Simon, J. A., Casson, P. R., Buster, J. E., Redmond, G. P., Burki, R. E., Ginsburg, E. S., Rosen, R. C., Leiblum, S. R., Caramelli, K. E., and Mazer, N. A. Transdermal testosterone treatment in women with impaired sexual function after oophorectomy. *New England Journal of Medicine*, 2000, 343, 682–688.
- Shimada, M., Tritos, N. A., Lowell, B. B., Flier, J. S., and Maratos-Flier, E. Mice lacking melanin-concentrating hormone are hypophagic and lean. *Nature*, 1998, 396, 670–674.
- Shimura, T., Yamamoto, T., and Shimokochi, M. The medial preoptic area is involved in both sexual arousal and performance in male rats: Re-evaluation of neuron activity in freely moving animals. *Brain Research*, 1994, 640, 215–222.
- Shinohara, K., Morofushi, M., Funabashi, T., and Kimura, F. Axillary pheromones modulate pulsatile LH secretion in humans. *Neuroreport*, 2001, 12, 893–895.
- Shipley, M. T., and Ennis, M. Functional organization of the olfactory system. *Journal of Neurobiology*, 1996, 30, 123–176.
- Shors, T. J., Seib, T. B., Levine, S., and Thompson, R. F. Inescapable versus escapable shock modulates long-term potentiation in the rat hippocampus. *Science*, 1989, 244, 224–226.
- Shoulson, I., Oakes, D., Fahn, S., Lang, A., Langston, J. W., Lewitt, P., Olanow, C. W., Penney, J. B., Tanner, C., Kieburz, K., and Rudolph, A. Parkinson Study Group. Impact of sustained deprenyl (selegiline) in levodopa-treated Parkinson's disease: A randomized placebo-controlled extension of the deprenyl and tocopherol antioxidative therapy of parkinsonism trial. *Annals of Neurology*, 2002, 51, 604–612.
- Sidman, M., Stoddard, L. T., and Mohr, J. P. Some additional quantitative observations of immediate memory in a patient with bilateral hippocampal lesions. *Neuropsychologia*, 1968, 6, 245–254.
- Siegel, A., Roeling, T. A. P., Gregg, T. R., and Kruk, M. R. Neuropharmacology of brain-stimulation-evoked aggression. *Neuroscience and Biobehavioral Reviews*, 1999, 23, 359–389.
- Siegel, R. M., and Andersen, R. A. Motion perceptual deficits following ibotenic acid lesions of the middle temporal area (MT) in the behaving monkey. *Society for Neuroscience Abstracts*, 1986, 12, 1183.
- Siegel, S. A Pavlovian conditioning analysis of morphine tolerance. In *Behavioral Tolerance: Research and Treatment Implications*, edited by N. A. Krasnegor. Washington, DC: NIDA Research Monographs, 1978.
- Siegel, S., Hinson, R. E., Krank, M. D., and McCully, J. Heroin "overdose" death: Contribution of drug-associated environmental cues. *Science*, 1982, 216, 436–437.
- Sigvardsson, S., Bohman, M., and Cloninger, R. Replication of the Stockholm adoption study of alcoholism. *Archives of General Psychiatry*, 1996, 53, 681–687.
- Silva, A. J., Stevens, C. F., Tonegawa, S., and Wang, Y. Deficient hippocampal long-term potentiation in α -calcium-calmodulin kinase II mutant mice. *Science*, 1992, 257, 201–206.
- Silver, J. M., Shin, C., and McNamara, J. O. Antiepileptogenic effects of conventional anticonvulsants in the kindling model of epilepsy. *Annals of Neurology*, 1991, 29, 356–363.
- Silver, R., LeSauter, J., Tresco, P. A., and Lehman, M. N. A diffusible coupling signal from the transplanted suprachiasmatic nucleus controlling circadian locomotor rhythms. *Nature*, 1996, 382, 810–813.
- Silveri, M. C. Peripheral aspects of writing can be differentially affected by sensorial and attentional defect: Evidence from a patient with afferent dysgraphia and case dissociation. *Cortex*, 1996, 32, 155–172.
- Simpson, J. B., Epstein, A. N., and Camardo, J. S. The localization of dipsogenic receptors for angiotensin II in the subfornical organ. *Journal of Comparative and Physiological Psychology*, 1978, 92, 581–608.
- Simuni, T., Jaggi, J. L., Mulholland, H., Hurtig, H. I., Colcher, A., Siderowf, A. D., Ravina, B., Skolnick, B. E., Goldstein, R., Stern, M. B., and Baltuch, G. H. Bilateral stimulation of the subthalamic nucleus in patients with Parkinson disease: A study of efficacy and safety. *Journal of Neurosurgery*, 2002, 96, 666–672.
- Sinclair, A. H., Berta, P., Palmer, M. S., Hawkins, J. R., Griffiths, B. L., Smith, M. J., Foster, J. W., Frischauft, A. M., Lovell-Badge, R., and Goodfellow, P. N. A gene from the human sex-determining region encodes a protein with homology to a conserved DNA-binding motif. *Nature*, 1990, 346, 240–244.
- Singer, C., and Weiner, W. J. Male sexual dysfunction. *Neurologist*, 1996, 2, 119–129.
- Singer, F., and Zumoff, B. Subnormal serum testosterone levels in male internal medicine residents. *Steroids*, 1992, 57, 86–89.
- Singh, N. A., Clements, K. M., and Fiatarone, M. A. Sleep, sleep deprivation, and daytime activities: A randomized controlled trial of the effect of exercise on sleep. *Sleep*, 1997, 20, 95–101.
- Sipos, M. L., and Nyby, J. G. Concurrent androgenic stimulation of the ventral tegmental area and medial preoptic area: Synergistic effects on male-typical reproductive behaviors in house mice. *Brain Research*, 1996, 729, 29–44.
- Sitaram, N., Moore, A. M., and Gillin, J. C. Experimental acceleration and slowing of REM ultradian rhythm by cholinergic agonist and antagonist. *Nature*, 1978, 274, 490–492.
- Skaggs, W. E., and McNaughton, B. L. Spatial firing properties of hippocampal CA1 populations in an environment containing two visually identical regions. *Journal of Neuroscience*, 1998, 18, 8455–8466.
- Skakkebaek, N. E., Bancroft, J., Davidson, D. W., and Warner, P. Androgen replacement with oral testosterone undecanoate in hypogonadal men: A double blind controlled study. *Clinical Endocrinology*, 1981, 74, 49–61.
- Skene, D. J., Lockley, S. W., and Arendt, J. Melatonin in circadian sleep disorders in the blind. *Biological Signals and Receptors*, 1999, 8, 90–95.
- Skutella, T., Criswell, H., Moy, S., Probst, J. C., Breese, G. R., Jirikowski, G. F., and Holboer, F. Corticotropin-releasing hormone (CRH) antisense oligodeoxynucleotide induces anxiolytic effects in rat. *Neuroreport*, 1994, 5, 2181–2185.
- Slotkin, T. A. Fetal nicotine or cocaine exposure: Which one is worse? *Journal of Pharmacology and Experimental Therapeutics*, 1996, 271, 10–15.

- cology and Experimental Therapeutics, 1998, 22, 521–527.
- Smith, C. Sleep states, memory processes and synaptic plasticity. *Behavioural Brain Research*, 1996, 78, 49–56.
- Smith, C., and Lapp, L. Increased number of REMs following an intensive learning. *Sleep*, 1991, 14, 325–330.
- Smith, G. P., Gibbs, J., and Kulkosky, P. J. Relationships between brain-gut peptides and neurons in the control of food intake. In *The Neural Basis of Feeding and Reward*, edited by B. G. Hoebel and D. Novin. Brunswick, Me.: Haer Institute, 1982.
- Smith, K. A., Morris, J. S., Friston, K. J., Cowen, P. J., and Dolan, R. J. Brain mechanisms associated with depressive relapse and associated cognitive impairment following acute tryptophan depletion. *British Journal of Psychiatry*, 1999, 174, 525–529.
- Smith, M. J. Sex determination: Turning on sex. *Current Biology*, 1994, 4, 1003–1005.
- Snyder, S. H. *Madness and the Brain*. New York: McGraw-Hill, 1974.
- Soares, J. C., and Gershon, S. The lithium ion: A foundation for psychopharmacological specificity. *Neuropsychopharmacology*, 1998, 19, 167–182.
- Solyom, L., Turnbull, I. M., and Wilensky, M. A case of self-inflicted leucotomy. *British Journal of Psychiatry*, 1987, 151, 855–857.
- Sørensen, T. I. A., Price, R. A., Stunkard, A. J., and Schulsinger, F. Genetics of obesity in adult adoptees and their biological siblings. *British Medical Journal*, 1989, 298, 87–90.
- Soto, C. Unfolding the role of protein misfolding in neurodegenerative diseases. *Nature Review Neuroscience*, 2003, 4, 49–60.
- Specman, J. D., Schuurman, R., de Bie, R. M., Esselink, R. A., and Bosch, D. A. Stereotactic neurosurgery for tremor. *Movement Disorders*, 2002, 17, S84–S88.
- Sperry, R. W. Brain bisection and consciousness. In *Brain and Conscious Experience*, edited by J. Eccles. New York: Springer-Verlag, 1966.
- Spiegler, B. J., and Mishkin, M. Evidence for the sequential participation of inferior temporal cortex and amygdala in the acquisition of stimulus-reward associations. *Behavioural Brain Research*, 1981, 3, 303–317.
- Spiers, H. J., Maguire, E. A., and Burgess, N. Hippocampal amnesia. *Neurocase*, 2001, 7, 357–382.
- Spray, D. C. Cutaneous temperature receptors. *Annual Review of Physiology*, 1986, 48, 625–638.
- Sprengelmeyer, R., Rausch, M., Eysel, U. T., and Przuntek, H. Neural structures associated with recognition of facial expressions of basic emotions. *Proceedings of the Royal Society of London [B]*, 1998, 265, 1927–1931.
- Sprengelmeyer, R., Young, A. W., Calder, A. J., Karnat, A., Lange, H., Hömberg, V., Perrett, D. I., and Rowland, D. Loss of disgust: Perception of faces and emotions in Huntington's disease. *Brain*, 1996, 119, 1647–1665.
- Sprengelmeyer, R., Young, A. W., Pundt, I., Sprengelmeyer, A., Calder, A. J., Berrios, G., Winkel, R., Vollmöller, W., Kuhn, W., Sartory, G., and Przuntek, H. Disgust implicated in obsessive-compulsive disorder. *Proceedings of the Royal Society of London [B]*, 1997, 264, 1767–1773.
- Squire, L. R. Memory and the hippocampus: A synthesis from findings with rats, monkeys, and humans. *Psychological Review*, 1992, 99, 195–231.
- Squire, L. R. Stable impairment in remote memory following electroconvulsive therapy. *Neuropsychologia*, 1974, 13, 51–58.
- Squire, L. R., Shimamura, A. P., and Amaral, D. G. Memory and the hippocampus. In *Neural Models of Plasticity: Experimental and Theoretical Approaches*, edited by J. H. Byrne and W. O. Berry. San Diego: Academic Press, 1989.
- St. George-Hyslop, P. H., Tanzi, R. E., Polinsky, R. J., Haines, J. L., Nee, L., Watkins, P. C., Myers, R. H., Feldman, R. G., Pollen, D., Drachman, D., Growdon, J., Bruni, A., Foncin, J.-F., Salmon, D., Frommelt, P., Amaducci, L., Sorbi, S., Piacentini, S., Stewart, G. D., Hobbs, W. J., Conneally, P. M., and Gusella, J. F. The genetic defect causing familial Alzheimer's disease maps on chromosome 21. *Science*, 1987, 235, 885–890.
- Stallone, D., and Nicolaïdis, S. Increased food intake and carbohydrate preference in the rat following treatment with the serotonin antagonist metergoline. *Neuroscience Letters*, 1989, 102, 319–324.
- Stanley, B. G., Willett, V. L., Donias, H. W., Dee, M. G., and Duva, M. A. Lateral hypothalamic NMDA receptors and glutamate as physiological mediators of eating and weight control. *American Journal of Physiology: Regulatory, Integrative and Comparative Physiology*, 1996, 270, R443–R449.
- Stanley, B. G., Willett, V. L., Donias, H. W., Ha, L. H., and Spears, L. C. The lateral hypothalamus: A primary site mediating excitatory amino acid-elicited eating. *Brain Research*, 1993a, 630, 41–44.
- Stanton, P. K., and Sejnowski, T. J. Associative long-term depression in the hippocampus induced by Hebbian covariance. *Nature*, 1989, 339, 215–218.
- Starkey, S. J., Walker, M. P., Beresford, I. J. M., and Hagan, R. M. Modulation of the rat suprachiasmatic circadian clock by melatonin in-vitro. *Neuroreport*, 1995, 6, 1947–1951.
- Stein, M. B., Jang, K. L., Taylor, S., Vernon, P. A., and Livesley, W. J. Genetic and environmental influences on trauma exposure and posttraumatic stress disorder symptoms: A twin study. *American Journal of Psychiatry*, 2002, 159, 1675–1681.
- Steininger, R. L., Alam, M. N., Szymborska, R., and McGinty, D. State dependent discharge of ruberomammillary neurons in the rat hypothalamus. *Sleep Research*, 1996, 25, 28.
- Stellar, J. R., Kelley, A. E., and Corbett, D. Effects of peripheral and central dopamine blockade on lateral hypothalamic self-stimulation: Evidence for both reward and motor deficits. *Pharmacology, Biochemistry, and Behavior*, 1983, 18, 433–442.
- Stephan, F. K., and Nuñez, A. A. Elimination of circadian rhythms in drinking activity, sleep, and temperature by isolation of the suprachiasmatic nuclei. *Behavioral Biology*, 1977, 20, 1–16.
- Stephan, F. K., and Zucker, I. Circadian rhythms in drinking behavior and locomotor activity of rats are eliminated by hypothalamic lesion. *Proceedings of the National Academy of Sciences, USA*, 1972, 69, 1583–1586.
- Steriade, M. Arousal: Revisiting the reticular activating system. *Science*, 1996, 272, 225–226.
- Steriade, M. Basic mechanisms of sleep generation. *Neurology*, 1992, 42 (Suppl. 6), 9–18.
- Steriade, M., Paré, D., Datta, S., Oakson, G., and Curró Dossi, R. Different cellular types in mesopontine cholinergic nuclei related to ponto-geniculocalcarine waves. *Journal of Neuroscience*, 1990, 8, 2560–2579.
- Sterman, M. B., and Clemente, C. D. Forebrain inhibitory mechanisms: Cortical synchronization induced by basal forebrain stimulation. *Experimental Neurology*, 1962a, 6, 91–102.
- Sterman, M. B., and Clemente, C. D. Forebrain inhibitory mechanisms: Sleep patterns induced by basal forebrain stimulation in the behaving cat. *Experimental Neurology*, 1962b, 6, 103–117.
- Stern, K., and McClintock, M. K. Regulation of ovulation by human pheromones. *Nature*, 1998, 392, 177–178.
- Stevens, J. R. Neurology and neuropathology of schizophrenia. In *Schizophrenia as a Brain Disease*, edited by F. A. Henn and H. A. Nasrallah. New York: Oxford University Press, 1982.
- Stinson, D., and Thompson, C. Clinical experience with phototherapy. *Journal of the Affectionate Disorders*, 1990, 18, 129–135.
- Stolerman, I. P., and Jarvis, M. J. The scientific case that nicotine is addictive. *Psychopharmacology*, 1995, 117, 2–10.
- Stone, A. A., Reed, B. R., and Neale, J. M. Changes in daily event frequency precede episodes of physical symptoms. *Journal of Human Stress*, 1987, 13, 70–74.
- Stowers, L., Holy, T. E., Meister, M., Dulac, C., and Koentges, G. Loss of sex discrimination of male-male aggression in mice deficient for TRP2. *Science*, 2002, 295, 1493–1500.
- Stoyva, J., and Metcalf, D. Sleep patterns following chronic exposure to cholinesterase-inhibiting organophosphate compounds. *Psychophysiology*, 1968, 5, 206.
- Strakowski, S. M., DelBello, M. P., Zimmerman, M. E., Getz, G. E., Mills, N. P., Ret, J., Shear, P., and Adler, C. M. Ventricular and periventricular structural volumes in first-versus multiple-episode bipolar disorder. *American Journal of Psychiatry*, 2002, 11, 1841–1847.
- Stricker, E. M., Swerdloff, A. F., and Zigmond, M. J. Intrahypothalamic injections of kainic acid produces feeding and drinking deficits in rats. *Brain Research*, 1978, 158, 470–473.
- Strobel, A., Issad, T., Camoin, L., Ozata, M., and Strosberg, A. D. A leptin missense mutation associated with hypogonadism and morbid obesity. *Nature Genetics*, 1998, 18, 213–215.
- Strömlund, K., Nordin, V., Miller, M., Åkerblom, B., and Gillberg, C. Autism in thalidomide embryopathy: A population study. *Developmental Medicine and Child Neurology*, 1994, 36, 351–356.
- Stunkard, A. J., Sørensen, T. I. A., Harris, C., Teasdale, T. W., Chakraborty, R., Schull, W. J., and Schulsinger, F. An adoption study of human obesity. *New England Journal of Medicine*, 1986, 314, 193–198.
- Sturgis, J. D., and Bridges, R. S. N-methyl-DL-aspartic acid lesions of the medial preoptic area disrupt ongoing parental behavior in male rats. *Physiology and Behavior*, 1997, 62, 305–310.
- Sturup, G. K. Correctional treatment and the criminal sexual offender. *Canadian Journal of Correction*, 1961, 3, 250–265.
- Styron, W. *Darkness Visible: A Memoir of Madness*. New York: Random House, 1990.

- Su, T.-P., Pagliaro, M., Schmidt, P. J., Pickar, D., Wolkowitz, O., and Rubinow, D. R. Neuropsychiatric effects of anabolic steroids in male normal volunteers. *Journal of the American Medical Association*, 1993, 269, 2760–2764.
- Sutherland, R. J., McDonald, R. J., and Savage, D. D. Prenatal exposure to moderate levels of ethanol can have long-lasting effects on hippocampal synaptic plasticity in adult offspring. *Hippocampus*, 1997, 7, 232–238.
- Suzdak, P. D., Glowa, J. R., Crawley, J. N., Schwartz, R. D., Skolnick, P., and Paul, S. M. A selective imidazobenzodiazepine antagonist of ethanol in the rat. *Science*, 1986, 234, 1243–1247.
- Svennilson, E., Torvik, A., Lowe, R., and Leksell, L. Treatment of Parkinsonism by stereotactic thermolesions in the pallidal region. *Neurologica Scandanavica*, 1960, 35, 358–377.
- Swaab, D. F., and Hofman, M. A. An enlarged suprachiasmatic nucleus in homosexual men. *Brain Research*, 1990, 537, 141–148.
- Swaab, D. F., Gooren, L. J. G., and Hofman, M. A. Brain research, gender, and sexual orientation. *Journal of Homosexuality*, 1995, 28, 283–301.
- Swanson, R. A. Physiologic coupling of glial glycogen metabolism to neuronal activity in brain. *Canadian Journal of Physiology and Pharmacology*, 1992, 70, S138–S144.
- Swanson, R. A., and Choi, D. W. Glial glycogen stores affect neuronal survival during glucose deprivation in vitro. *Journal of Cerebral Blood Flow and Metabolism*, 1993, 13, 162–169.
- Sweet, W. H. Participant in brain stimulation in behaving subjects. Neurosciences Research Program Workshop, 1966.
- Swerdlow, N. R. Obsessive-compulsive disorder and tic syndromes. *Medical Clinics of North America*, 2001, 85, 735–755.
- Swerdlow, N. R., Geyer, M. A., Vale, W. W., and Koob, G. F. Corticotropin-releasing factor potentiates acoustic startle in rats: Blockade by chlordiazepoxide. *Psychopharmacology*, 1986, 88, 147–152.
- Szuba, M. P., Baxter, L. R., and Fairbanks, L. A. Effects of partial sleep deprivation on the diurnal variation of mood and motor activity in major depression. *Biological Psychiatry*, 1991, 30, 817–829.
- Szuba, M. P., O'Reardon, J. P., Rai, A. S., Snyder-Kastenberg, J., Amsterdam, J. D., Gettes, D. R., Wassermann, E., and Evans, D. L. Acute mood and thyroid stimulating hormone effects of transcranial magnetic stimulation in major depression. *Biological Psychiatry*, 2001, 50, 22–27.
- Szymusiak, R., Alam, N., Steininger, T. L., and McGinty, D. Sleep-waking discharge patterns of ventrolateral preoptic/anterior hypothalamic neurons in rats. *Brain Research*, 1998, 803, 178–188.
- Tabakoff, B., and Hoffman, P. L. Alcohol addiction: An enigma among us. *Neuron*, 1996, 16, 909–912.
- Taijale, N., Kaminen, N., Nopola-Hemmi, J., Haltia, T., Myllyluoma, B., Lytyinen, H., Muller, K., Kaaranen, M., Lindsberg, P. J., Hannula-Jouppi, K., and Kere, J. A candidate gene for developmental dyslexia encodes a nuclear tetratricopeptide repeat domain protein dynamically regulated in brain. *Proceedings of the National Academy of Science, USA*, 2003, 100, 11553–11558.
- Takahashi, L. K. Hormonal regulation of sociosexual behavior in female mammals. *Neuroscience and Biobehavioral Reviews*, 1990, 14, 403–413.
- Takahashi, L. K., Turner, J. G., and Kalin, N. H. Prenatal stress alters brain catecholaminergic activity and potentiates stress-induced behavior in adult rats. *Brain Research*, 1992, 574, 131–137.
- Tamminga, C. A., Burrows, G. H., Chase, T. N., Alphs, L. D., and Thaker, G. K. Dopamine neuronal tracts in schizophrenia: Their pharmacology and *in vivo* glucose metabolism. *Annals of the New York Academy of Sciences*, 1988, 537, 443–450.
- Tang, Y.-P., Shimizu, E., Dube, G. R., Rampon, C., Kerchner, G. A., Zhuo, M., Lium, G., and Tsien, J. Z. Genetic enhancement of learning and memory in mice. *Nature*, 1999, 401, 63–69.
- Tanner, C. M. The role of environmental toxins in the etiology of Parkinson's disease. *Trends in Neuroscience*, 1989, 12, 49–54.
- Tarsy, D., Baldessarini, R. J., and Tarazi, F. I. Effects of newer antipsychotics on extrapyramidal function. *CNS Drugs*, 2002, 16, 23–45.
- Taub, E., Miller, N. E., Novack, T. A., Cook, E. W., Fleming, W. C., Nepomuceno, C. S., Connell, J. S., and Crago, J. E. Technique to improve chronic motor deficit after stroke. *Archives of Physical Medicine and Rehabilitation*, 1993, 74, 347–354.
- Taylor, B., Miller, E., Lingam, R., Andrews, N., Simmons, A., and Stowe, J. Measles, mumps, and rubella vaccination and bowel problems or developmental regression in children with autism: Population study. *British Medical Journal*, 2002, 324, 393–396.
- Taylor, S. F. Cerebral blood flow activation and functional lesions in schizophrenia. *Schizophrenia Research*, 1996, 19, 129–140.
- Tei, H., Soma, Y., and Maruyama, S. Right unilateral agraphia following callosal infarction in a left-hander. *European Neurology*, 1994, 34, 168–172.
- Teicher, M. H., Anderson, C. M., Polcari, A., Glod, C. A., Maas, L. C., and Renshaw, P. F. Functional deficits in basal ganglia of children with attention-deficit/hyperactivity disorder shown with functional magnetic resonance imaging relaxometry. *Nature Medicine*, 2000, 6, 470–473.
- Teitelbaum, P., and Stellar, E. Recovery from the failure to eat produced by hypothalamic lesions. *Science*, 1954, 120, 894–895.
- Terenius, L., and Wahlström, A. Morphine-like ligand for opiate receptors in human CSF. *Life Sciences*, 1975, 16, 1759–1764.
- Terman, T., Terman, J. S., and Ross, D. C. A controlled trial of timed bright light and negative air ionization for treatment of winter depression. *Archives of General Psychiatry*, 1998, 55, 875–882.
- Terry, R. D., and Davies, P. Dementia of the Alzheimer type. *Annual Review of Neuroscience*, 1980, 3, 77–96.
- Twetzel, M. J., Celentano, D. C., and Blaustein, J. D. Intraneuronal convergence of tactile and hormonal stimuli associated with female reproduction in rats. *Journal of Neuroendocrinology*, 1994, 6, 211–216.
- Twetzel, M. J., Getzinger, M. J., and Blaustein, J. D. Fos expression in the rat brain following vaginal-cervical stimulation by mating and manual probing. *Journal of Neuroendocrinology*, 1993, 5, 397–404.
- Tetrud, J. W., and Langston, J. W. The effect of deprenyl (Selegiline) on the natural history of Parkinson's disease. *Science*, 1989, 245, 519–522.
- Thaker, G. K., and Carpenter, W. T. Advances in schizophrenia. *Nature Medicine*, 2001, 7, 667–671.
- Thakkar, M. M., Winston, S., and McCarley, R. W. Orexin neurons of the hypothalamus express adenosine A1 receptors. *Brain Research*, 2002, 944, 190–194.
- Theorell, T., Leymann, H., Jodko, M., Konarski, K., Norbeck, H. E., and Eneroth, P. "Person under train" incidents: Medical consequences for subway drivers. *Psychosomatic Medicine*, 1992, 54, 480–488.
- Thiels, E., Xie, X. P., Yeckel, M. F., Barrionuevo, G., and Berger, T. W. NMDA receptor-dependent LTD in different subfields of hippocampus *in vivo* and *in vitro*. *Hippocampus*, 1996, 6, 43–51.
- Thompson, P. M., Vidal, C., Giedd, J. N., Gochman, P., Blumenthal, J., Nicolson, R., Toga, A. W., and Rapoport, J. L. Mapping adolescent brain change reveals dynamic wave of accelerated gray matter loss in very early-onset schizophrenia. *Proceedings of the National Academy of Science, USA*, 2001, 98, 11650–11655.
- Thompson, S. M., Fortunato, C., McKinney, R. A., Müller, M., and Gähwiler, B. H. Mechanisms underlying the neuropathological consequences of epileptic activity in the rat hippocampus *in vitro*. *Journal of Comparative Neurology*, 1996, 372, 515–528.
- Thrasher, T. N. Role of forebrain circumventricular organs in body fluid balance. *Acta Physiologica Scandanavica*, 1989, 136 (Suppl. 583), 141–150.
- Toni, N., Buchs, P.-A., Nikonenko, I., Bron, C. R., and Müller, D. LTP promotes formation of multiple spine synapses between a single axon terminal and a dendrite. *Nature*, 1999, 402, 421–425.
- Topper, R., Kosinski, C., and Mull, M. Volitional type of facial palsy associated with pontine ischemia. *Journal of Neurology, Neurosurgery, and Psychiatry*, 1995, 58, 732–734.
- Tordoff, M. G., and Friedman, M. I. Hepatic control of feeding: Effect of glucose, fructose, and mannitol. *American Journal of Physiology*, 1988, 254, R969–R976.
- Träskmann, L., Åsberg, M., Bertilsson, L., and Sjöstrand, L. Monoamine metabolites in CSF and suicidal behavior. *Archives of General Psychiatry*, 1981, 38, 631–636.
- True, W. R., Xian, H., Scherrer, J. F., Madden, P. A., Bucholz, K. K., Heath, A. C., Eisen, S. A., Lyons, M. J., Goldberg, J., and Tsuang, M. Common genetic vulnerability for nicotine and alcohol dependence in men. *Archives of General Psychiatry*, 1999, 56, 655–661.
- Trujillo, K. A., and Akil, H. Opiate tolerance and dependence: Recent findings and synthesis. *New Biologist*, 1991, 3, 915–923.
- Trulson, M. E., and Jacobs, B. L. Raphe unit activity in freely moving cats: Correlation with level of behavioral arousal. *Brain Research*, 1979, 163, 135–150.
- Tsacopoulos, M., and Magistretti, P. J. Metabolic coupling between glia and neurons. *Journal of Neuroscience*, 1996, 16, 877–885.
- Tsai, G., and Coyle, J. T. Glutamatergic mechanisms in schizophrenia. *Annual Review of Pharmacology and Toxicology*, 2002, 42, 165–179.
- Tschöp, M., Smiley, D. L., and Heiman, M. L. Ghrelin induces adiposity in rodents. *Nature*, 2000, 407, 908–913.

- Tsien, J. Z., Huerta, P. T., and Tonegawa, S. The essential role of hippocampal CA1 NMDA receptor-dependent synaptic plasticity in spatial memory. *Cell*, 1996, 87, 1327–1338.
- Tsuang, M. T., Gilbertson, M. W., and Faraone, S. V. The genetics of schizophrenia: Current knowledge and future directions. *Schizophrenia Research*, 1991, 4, 157–171.
- Turner, S. M., Beidel, D. C., and Nathan, R. S. Biological factors in obsessive-compulsive disorders. *Psychological Bulletin*, 1985, 97, 430–450.
- Turrone, P., Remington, G., and Nobrega, J. N. The vacuous chewing movement (VCM) model of tardive dyskinesia revisited: Is there a relationship to dopamine D₂ receptor occupancy? *Neuroscience and Biobehavioral Reviews*, 2002, 26, 361–380.
- Tyrell, J. B., and Baxter, J. D. Glucocorticoid therapy. In *Endocrinology and Metabolism*, edited by P. Felig, J. D. Baxter, A. E. Broadus, and L. A. Frohman. New York: McGraw-Hill, 1981.
- Unger, J., McNeill, T. H., Moxley, R. T., White, M., Moss, A., and Livingston, J. N. Distribution of insulin receptor-like immunoreactivity in the rat forebrain. *Neuroscience*, 1989, 31, 143–157.
- Ungerleider, L. G., and Mishkin, M. Two cortical visual systems. In *Analysis of Visual Behavior*, edited by D. J. Ingle, M. A. Goodale, and R. J. W. Mansfield. Cambridge, Mass.: MIT Press, 1982.
- Ungless, M. A., Whistler, J. L., Malenka, R. C., and Bonci, A. Single cocaine exposure in vivo induces long-term potentiation in dopamine neurons. *Nature*, 2001, 411, 583–587.
- Uno, H., Tarara, R., Else, J. G., Suleiman, M. A., and Sapolsky, R. M. Hippocampal damage associated with prolonged and fatal stress in primates. *Journal of Neuroscience*, 1989, 9, 1705–1711.
- Urban, P. P., Wicht, S., Marx, J., Mitrovic, S., Fitzek, C., and Hopf, H. C. Isolated voluntary facial paresis due to pontine ischemia. *Neurology*, 1998, 50, 1859–1862.
- Vaina, L. M. Complex motion perception and its deficits. *Current Opinion in Neurobiology*, 1998, 8, 494–502.
- Valenza, N., Ptak, R., Zimine, I., Badan, M., Lazeyras, F., and Schnider, A. Dissociated active and passive tactile shape recognition: A case study of pure tactile apraxia. *Brain*, 2001, 124, 2287–2298.
- Van Bockstaele, E. J., Bajic, D., Proudfoot, H., and Valentino, R. J. Topographic architecture of stress-related pathways targeting the noradrenergic locus coeruleus. *Physiology and Behavior*, 2001, 73, 273–283.
- Vandenbergh, J. G., Whitsett, J. M., and Lombardi, J. R. Partial isolation of a pheromone accelerating puberty in female mice. *Journal of Reproductive Fertility*, 1975, 43, 515–523.
- van de Poll, N. E., Taminiua, M. S., Endert, E., and Louwerse, A. L. Gonadal steroid influence upon sexual and aggressive behavior of female rats. *International Journal of Neuroscience*, 1988, 41, 271–286.
- van der Lee, S., and Boot, L. M. Spontaneous pseudopregnancy in mice. *Acta Physiologica et Pharmacologica Netherlandica*, 1955, 4, 442–444.
- Vanderwolf, C. H. The electrocorticogram in relation to physiology and behavior: A new analysis. *Electroencephalography and Clinical Neurophysiology*, 1992, 82, 165–175.
- Van Essen, D. C., Anderson, C. H., and Felleman, D. J. Information processing in the primate visual system: An integrated systems perspective. *Science*, 1992, 255, 419–423.
- Van Goozen, S., Wiegant, V., Endert, E., Hellmond, F., and Van de Poll, N. Psychoendocrinological assessments of the menstrual cycle: The relationship between hormones, sexuality, and mood. *Archives of Sexual Behavior*, 1997, 26, 359–382.
- Van Tol, H. H. M., Bunzow, J. R., Hong-Chang, G., Sunahara, R. K., Seeman, P., Niznik, H. B., and Civelli, O. Cloning of the gene for a human dopamine D4 receptor with high affinity for the antipsychotic clozapine. *Nature*, 1991, 350, 614–619.
- Vassar, R., Ngai, J., and Axel, R. Spatial segregation of odorant receptor expression in the mammalian olfactory epithelium. *Cell*, 1993, 74, 309–318.
- Veldman, B. A., Wijn, A. M., Knoers, N., Praamstra, P., and Horstink, M. W. Genetic and environmental risk factors in Parkinson's disease. *Clinical Neurology and Neurosurgery*, 1998, 100, 15–26.
- Vergnes, M., Depaulis, A., Boehrer, A., and Kempf, E. Selective increase of offensive behavior in the rat following intrahypothalamic 5,7-DHT-induced serotonin depletion. *Brain Research*, 1988, 29, 85–91.
- Verney, E. B. The antidiuretic hormone and the factors which determine its release. *Proceedings of the Royal Society of London [B]*, 1947, 135, 25–106.
- Vgontzas, A. N., and Kales, A. Sleep and its disorders. *Annual Review of Medicine*, 1999, 50, 387–400.
- Victor, M., and Agamanolis, J. Amnesia due to lesions confined to the hippocampus: A clinical-pathological study. *Journal of Cognitive Neuroscience*, 1990, 2, 246–257.
- Vikingstad, E. M., Cao, Y., Thomas, A. J., Johnson, A. F., Malik, G. M., Welch, K. M. A. Language hemispheric dominance in patients with congenital lesions of eloquent brain. *Neurosurgery*, 2000, 47, 562–570.
- Virkkunen, M., De Jong, J., Bartko, J., and Linnoila, M. Psychobiological concomitants of history of suicide attempts among violent offenders and impulsive fire setters. *Archives of General Psychiatry*, 1989, 46, 604–606.
- Voci, V. E., and Carlson, N. R. Enhancement of maternal behavior and nest behavior following systemic and diencephalic administration of prolactin and progesterone in the mouse. *Journal of Comparative and Physiological Psychology*, 1973, 83, 388–393.
- Vogel, G. W., Buffenstein, A., Minter, K., and Hennessey, A. Drug effects on REM sleep and on endogenous depression. *Neuroscience and Biobehavioral Reviews*, 1990, 14, 49–63.
- Vogel, G. W., Thurmond, A., Gibbons, P., Sloan, K., Boyd, M., and Walker, M. REM sleep reduction effects on depression syndromes. *Archives of General Psychiatry*, 1975, 32, 765–777.
- Vogel, G. W., Vogel, F., McAbee, R. S., and Thurmond, A. J. Improvement of depression by REM sleep deprivation: New findings and a theory. *Archives of General Psychiatry*, 1980, 37, 247–253.
- Volkow, N. D., Hitzeemann, R., Wang, G.-J., Fowler, J. S., Wolf, A. P., Dewey, S. L., and Handlesman, L. Long-term frontal brain metabolic changes in cocaine abusers. *Synapse*, 1992, 11, 184–190.
- Volpe, B. T., LeDoux, J. E., and Gazzaniga, M. S. Information processing of visual stimuli in an “extinguished” field. *Nature*, 1979, 282, 722–724.
- vom Saal, F. S. Models of early hormonal effects on intrasex aggression in mice. In *Hormones and Aggressive Behavior*, edited by B. B. Svare. New York: Plenum Press, 1983.
- vom Saal, F. S., and Bronson, F. H. *In utero* proximity of female mouse fetuses to males: Effect on reproductive performance during later life. *Biology of Reproduction*, 1980, 22, 777–780.
- von Békésy, G. *Experiments in Hearing*. New York: McGraw-Hill, 1960.
- Vorel, S. R., Liu, X., Hayes, R. J., Spector, J. A., and Gardner, E. L. Relapse to cocaine-seeking after hippocampal theta burst stimulation. *Science*, 2001, 292, 1175–1178.
- Wada, H., Inagaki, N., Itowi, N., and Yamatodani, A. Histaminergic neuron systems in the brain: Distribution and possible functions. *Brain Research Bulletin*, 1991, 27, 367–370.
- Wahlestedt, C., Skagerberg, G., Edman, R., Heilig, M., Sundler, F., and Hakanson, R. Neuropeptide Y (NPY) in the area of the paraventricular nucleus activates the pituitary-adrenocortical axis in the rat. *Brain Research*, 1987, 417, 33–38.
- Walker, E. F., Lewine, R. R. J., and Neumann, C. Childhood behavioral characteristics and adult brain morphology in schizophrenia. *Schizophrenia Research*, 1996, 22, 93–101.
- Walker, E. F., Savoie, T., and Davis, D. Neuromotor precursors of schizophrenia. *Schizophrenia Bulletin*, 1994, 20, 441–451.
- Walker, P. A., and Meyer, W. J. Medroxyprogesterone acetate for paraphilic sex offender. In *Violence and the Violent Individual*, edited by J. R. Hays, T. K. Roberts, and T. S. Solway. New York: SP Medical and Scientific Books, 1981.
- Wallen, K. Desire and ability: Hormones and the regulation of female sexual behavior. *Neuroscience and Biobehavioral Reviews*, 1990, 14, 233–241.
- Wallen, K. Sex and context: Hormones and primate sexual motivation. *Hormones and Behavior*, 2001, 40, 339–357.
- Wallen, K., Eisler, J. A., Tannenbaum, P. L., Nagell, K. M., and Mann, D. R. Antide (Nal-Lys GnRH antagonist) suppression of pituitary-testicular function and sexual behavior in group-living rhesus monkeys. *Physiology and Behavior*, 1991, 50, 429–435.
- Walsh, B. T., and Devlin, M. J. Eating disorders: Progress and problems. *Science*, 1998, 280, 1387–1390.
- Walsh, V., Carden, D., Butler, S. R., and Kulikowski, J. J. The effects of V4 lesions on the visual abilities of macaques: Hue discrimination and color constancy. *Behavioral Brain Research*, 1993, 53, 51–62.
- Walters, E. E., and Kendler, K. S. Anorexia nervosa and anorexic-like syndromes in a population-based female twin sample. *American Journal of Psychiatry*, 1995, 152, 64–71.
- Wang, G.-J., Volkow, N. D., Fowler, J. S., Cerveny, P., Hitzeemann, R. J., Pappas, N. R., Wong, C. T., and Felder, C. Regional brain metabolic activation during craving elicited by recall of previous drug experiences. *Life Sciences*, 1999, 64, 775–784.
- Wang, Q., Bing, C., Al-Barazanji, K., Mossakowska, D. E., Wang, X. M., McBay, D. L., Neville, W. A., Taddayon, M.,

- Pickavance, L., Dryden, S. Thomas, M. E., McHale, M. T., Gloyer, I. S., Wilson, S., Buckingham, R., Arch, J. R., Trayhurn, P., and Williams, G. Interactions between leptin and hypothalamic neuropeptide Y neurons in the control of food intake and energy homeostasis in the rat. *Diabetes*, 1997, **46**, 335–341.
- Warne, G. L., and Zajac, J. D. Disorders of sexual differentiation. *Endocrinology and Metabolism Clinics of North America*, 1998, **27**, 945–967.
- Wassink, T. H., Piven, J., Vieland, V. J., Huang, J., Swiderski, R. E., Pietila, J., Braun, T., Beck, G., Folstein, S. E., Haines, J. L., and Sheffield, V. C. Evidence supporting WNT2 as an autism susceptibility gene. *American Journal of Medical Genetics*, 2001, **105**, 406–413.
- Watkins, K. E., Dronkers, N. F., and Vargha-Khadem, F. Behavioural analysis of an inherited speech and language disorder: Comparison with acquired aphasia. *Brain*, 2002a, **125**, 452–464.
- Watkins, K. E., Vargha-Khadem, F., Ashburner, J., Passingham, R. E., Connelly, A., Friston, K. J., Frackowiak, R. S. J., Mishkin, M., and Gadian, D. G. MRI analysis of an inherited speech and language disorder: Structural brain abnormalities. *Brain*, 2002b, **125**, 465–478.
- Webster, H. H., and Jones, B. E. Neurotoxic lesions of the dorsolateral pontomesencephalic tegmentum-cholinergic cell area in the cat. II. Effects upon sleep-waking states. *Brain Research*, 1988, **458**, 285–302.
- Weggen, S., Eriksen, J. L., Sagi, S. A., Pietrzik, C. U., Ozols, V., Fauq, A., Golde, T. E., and Koo, E. H. Evidence that nonsteroidal anti-inflammatory drugs decrease amyloid beta production by direct modulation of gamma-secretase activity. *Journal of Biological Chemistry*, 2003, **278**, 31831–31837.
- Wehr, T. A. Improvement of depression and triggering of mania by sleep deprivation. *Journal of the American Medical Association*, 1992, **267**, 548–551.
- Wehr, T. A., Giesen, H. A., Schulz, P. M., Anderson, J. L., Joseph-Vanderpool, J. R., Kelly, K., Kasper, S., and Rosenthal, N. E. Contrasts between symptoms of summer depression and winter depression. *Journal of the Affective Disorders*, 1991, **23**, 173–183.
- Wehr, T. A., Sack, D. A., and Rosenthal, N. E. Seasonal affective disorder with summer depression and winter hypomania. *American Journal of Psychiatry*, 1987, **114**, 1602–1603.
- Weinberger, D. R. Schizophrenia and the frontal lobe. *Trends in Neurosciences*, 1988, **11**, 367–370.
- Weinberger, D. R., and Wyatt, R. J. Brain morphology in schizophrenia: *In vivo* studies. In *Schizophrenia as a Brain Disease*, edited by F. A. Henn and H. A. Nasrallah. New York: Oxford University Press, 1982.
- Weiner, R. D., and Krystal, A. D. The present use of electroconvulsive therapy. *Annual Review of Medicine*, 1994, **45**, 273–281.
- Weintraub, S., Mesulam, M.-M., and Kramer, L. Disturbances in prosody: A right-hemisphere contribution to language. *Archives of Neurology*, 1981, **38**, 742–744.
- Weiss, J. M. Effects of coping response on stress. *Journal of Comparative and Physiological Psychology*, 1968, **65**, 251–260.
- Weissman, M. M., Canino, G. J., Greenwald, S., Joyce, P. R., Karam, E. G., Lee, C. K., Rubio-Stipek, M., Wells, J. E., Wickramaratne, P. J., and Wittchen, H. U. Current rates and symptom profiles of panic disorder in six cross-national studies. *Clinical Neuropharmacology*, 1995, **18** (Suppl. 2), S1–S6.
- Weitzman, E. D. Sleep and its disorders. *Annual Review of Neuroscience*, 1981, **4**, 381–418.
- Welsh, D. K., Logothetis, D. E., Meister, M., and Reppert, S. M. Individual neurons dissociated from rat suprachiasmatic nucleus express independently phased circadian firing rhythms. *Neuron*, 1995, **14**, 697–706.
- Weltzin, T. E., Hsu, L. K. G., Pollice, C., and Kaye, W. H. Feeding patterns in bulimia nervosa. *Biological Psychiatry*, 1991, **30**, 1093–1110.
- Wernicke, C. *Der Aphasische Symptomenkomplex*. Breslau, Poland: Cohn & Weigert, 1874.
- West, D. B., Fey, D., and Woods, S. C. Cholecystokinin persistently suppresses meal size but not food intake in free-feeding rats. *American Journal of Physiology*, 1984, **246**, R776–R787.
- Whalen, P. J., Rauch, S. L., Etcoff, N. L., McInerney, S. C., Lee, M. B., and Jenike, M. A. Masked presentations of emotional facial expressions modulate amygdala activity without explicit knowledge. *Journal of Neuroscience*, 1998, **18**, 411–418.
- Whipple, B., and Komisaruk, B. R. Analgesia produced in women by genital self-stimulation. *Journal of Sex Research*, 1988, **24**, 130–140.
- White, F. J. Synaptic regulation of mesocorticolimbic dopamine neurons. *Annual Review of Neuroscience*, 1996, **19**, 405–436.
- White, J. Autonomic discharge from stimulation of the hypothalamus in man. *Association for Research in Nervous and Mental Disorders*, 1940, **20**, 854–863.
- Whitten, W. K. Occurrence of anestrus in mice caged in groups. *Journal of Endocrinology*, 1959, **18**, 102–107.
- Wiesner, B. P., and Sheard, N. *Maternal Behaviour in the Rat*. London: Oliver and Brody, 1933.
- Wilckens, T., Schweiger, U., and Pirke, K. M. Activation of 5-HT1C-receptors suppresses excessive wheel running induced by semi-starvation in the rat. *Psychopharmacology (Berlin)*, 1992, **109**, 77–84.
- Wilens, T. E., Biederman, J., and Spencer, T. J. Attention deficit/hyperactivity disorder across the lifespan. *Annual Review of Medicine*, 2002, **53**, 113–131.
- Wilensky, A. E., Schafe, G. E., and LeDoux, J. E. Functional inactivation of the amygdala before but not after auditory fear conditioning prevents memory formation. *Journal of Neuroscience*, 1999, **19**, RC48 (1–5).
- Willesken, M. G., Kristensen, P., and Romer, J. Co-localization of growth hormone secretagogue receptor and NPY mRNA in the arcuate nucleus of the rat. *Neuroendocrinology*, 1999, **70**, 306–316.
- Willingham, D. G., and Koroshetz, W. J. Evidence for drossociable motor skills in Huntington's disease patients. *Psychobiology*, 1993, **21**, 173–182.
- Wilson, B. E., Meyer, G. E., Cleveland, J. C., and Weigle, D. S. Identification of candidate genes for a factor regulating body weight in primates. *American Journal of Physiology*, 1990, **259**, R1148–R1155.
- Winans, S. S., and Powers, J. B. Olfactory and vomeronasal deafferentation of male hamsters: Histological and behavioral analyses. *Brain Research*, 1977, **126**, 325–344.
- Wirz-Justice, A., and Van den Hoofdakker, R. H. Sleep deprivation in depression: What do we know, where do we go? *Biological Psychiatry*, 1999, **46**, 445–453.
- Wirz-Justice, A., Graw, P., Kraeuchi, K., Gisin, B., Jochum, A., Arendt, J., Fisch, H.-U., Buddeberg, C., and Poeldinger, W. Light therapy in seasonal affective disorder is independent of time of day or circadian phase. *Archives of General Psychiatry*, 1993, **50**, 929–937.
- Wirz-Justice, A., Graw, P., Kraeuchi, K., Sarrafzadeh, A., English, J., Arendt, J., and Sand, L. "Natural" light treatment of seasonal affective disorder. *Journal of Affective Disorders*, 1996, **37**, 109–120.
- Wise, R. A., Leone, P., Rivest, R., and Leeb, K. Elevations of nucleus accumbens dopamine and DOPAC levels during intravenous heroin self-administration. *Synapse*, 1995, **21**, 140–148.
- Wise, R. J. S., Greene, J., Buchel, C., and Scott, S. K. Brain regions involved in articulation. *Lancet*, 1999, **353**, 1057–1061.
- Wise, S. P., and Rapoport, J. L. Obsessive compulsive disorder: Is it a basal ganglia dysfunction? *Psychopharmacology Bulletin*, 1988, **24**, 380–384.
- Wissinger, B., and Sharpe, L. T. New aspects of an old theme: The genetic basis of human color vision. *American Journal of Human Genetics*, 1998, **63**, 1257–1262.
- Wolfe, P. A., Cobb, J. L., and D'Agostino, R. B. In *Stroke: Pathophysiology, Diagnosis, and Management*, edited by H. J. M. Barnett, B. M. Stein, J. P. Mohr, and F. M. Yatsu. New York: Churchill Livingstone, 1992.
- Wolff, P. H., and Melngailis, I. Family patterns of developmental dyslexia: Clinical findings. *American Journal of Medical Genetics*, 1994, **54**, 122–131.
- Wong, G. T., Gannon, K. S., and Margolskee, R. F. Transduction of bitter and sweet taste by gustducin. *Nature*, 1996, **381**, 796–800.
- Wong-Riley, M. T. Personal communication, 1978. Cited by Livingstone, M. S., and Hubel, D. H. Thalamic inputs to cytochrome oxidase-rich regions in monkey visual cortex. *Proceedings of the National Academy of Sciences USA*, 1982, **79**, 6098–6101.
- Wood, R. I., and Newman, S. W. Mating activates androgen receptor-containing neurons in chemosensory pathways of the male Syrian hamster brain. *Brain Research*, 1993, **614**, 65–77.
- Woodruff-Pak, D. S. Eyeblink classical conditioning in H. M.: Delay and trace paradigms. *Behavioral Neuroscience*, 1993, **107**, 911–925.
- Woods, B. T. Is schizophrenia a progressive neurodevelopmental disorder? Toward a unitary pathogenetic mechanism. *American Journal of Psychiatry*, 1998, **155**, 1661–1670.
- Woods, S. C., Lotter, E. C., McKay, L. D., and Porte, D. Chronic intracerebroventricular infusion of insulin reduces food intake and body weight of baboons. *Nature*, 1979, **282**, 503–505.
- Woodworth, R. S., and Schlosberg, H. *Experimental Psychology*. New York: Holt, Rinehart and Winston, 1954.
- Wu, J. C., and Bunney, W. E. The biological basis of an antidepressant response to sleep deprivation and relapse: Review and hypothesis. *American Journal of Psychiatry*, 1990, **147**, 14–21.
- Wu, J. C., Buchsbaum, M. S., and Bunney, W. E. Positron emission tomography study

- of phencyclidine users as a possible drug model of schizophrenia. *Yakubutsu Seishin Kodo*, 1991, 11, 47–48.
- Wysocki, C. J. Neurobehavioral evidence for the involvement of the vomeronasal system in mammalian reproduction. *Neuroscience and Biobehavioral Reviews*, 1979, 3, 301–341.
- Yadin, E., Thomas, E., Strickland, C. E., and Grishkat, H. L. Anxiolytic effects of benzodiazepines in amygdala-lesioned rats. *Psychopharmacology*, 1991, 103, 473–479.
- Yanovski, J. A., and Yanovski, S. Z. Recent advances in basic obesity research. *Journal of the American Medical Association*, 1999, 282, 1504–1506.
- Yates, W. R., Perry, P., and Murray, S. Aggression and hostility in anabolic steroid users. *Biological Psychiatry*, 1992, 31, 1232–1234.
- Yatham, L. N., Liddle, P. F., Shiah, I. S., Scarrow, G., Lam, R. W., Adam, M. J., Zis, A. P., and Ruth, T. J. Brain serotonin-2 receptors in major depression: A positron emission tomography study. *Archives of General Psychiatry*, 2000, 57, 850–858.
- Yehuda, R. Are glucocorticoids responsible for putative hippocampal damage in PTSD? How and when to decide. *Hippocampus*, 2001, 11, 85–90.
- Yokoo, H., Tanaka, M., Yoshida, M., Tsuda, A., Tanaka, T., and Mizoguchi, K. Direct evidence of conditioned fear-elicited enhancement of noradrenaline release in the rat hypothalamus assessed by intracranial microdialysis. *Brain Research*, 1990, 536, 305–308.
- Yokota, T., Ishiai, S., Furukawa, T., and Tsukagoshi, H. Pure agraphia of kanji due to thrombosis of the Labbe vein. *Journal of Neurology, Neurosurgery, and Psychiatry*, 1990, 53, 335–338.
- Yost, W. A. Auditory image perception and analysis: The basis for hearing. *Hearing Research*, 1991, 56, 8–18.
- Young, A. W., Aggleton, J. P., Hellawell, D. J., Johnson, M., Broks, P., and Hanley, J. R. Face processing impairments after amygdalotomy. *Brain*, 1995, 118, 15–24.
- Zayfert, C., Dums, A. R., Ferguson, R. J., and Hegel, M. T. Health functioning impairments associated with posttraumatic stress disorder, anxiety disorders, and depression. *Journal of Nervous and Mental Disease*, 2002, 190, 233–240.
- Zeki, S. The representation of colours in the cerebral cortex. *Nature*, 1980, 284, 412–418.
- Zeki, S., Aglioti, S., McKeefry, D., and Berlucchi, G. The neurological basis of conscious color perception in a blind patient. *Proceedings of the National Academy of Science, USA*, 1999, 96, 14124–14129.
- Zeki, S., and Shipp, S. The functional logic of cortical connections. *Nature*, 1988, 335, 311–317.
- Zenner, H.-P., Zimmermann, U., and Schmitt, U. Reversible contraction of isolated mammalian cochlear hair cells. *Hearing Research*, 1985, 18, 127–133.
- Zhang, C. Y., and Wong-Riley, M. T. Do nitric oxide synthase, NMDA receptor subunit R1 and cytochrome oxidase co-localize in the rat central nervous system? *Brain Research*, 1996, 729, 205–215.
- Zihl, J., Von Cramon, D., Mai, N., and Schmid, C. Disturbance of movement vision after bilateral posterior brain damage: Further evidence and follow up observations. *Brain*, 1991, 114, 2235–2252.
- Zola-Morgan, S., Squire, L. R., and Amaral, D. G. Human amnesia and the medial temporal region: Enduring memory impairment following a bilateral lesion limited to field CA1 of the hippocampus. *Journal of Neuroscience*, 1986, 6, 2950–2967.
- Zola-Morgan, S., Squire, L., Rempel, N. L., Clower, R. P., and Amaral, D. G. Enduring memory impairment in monkeys after ischemic damage to the hippocampus. *Journal of Neuroscience*, 1992, 12, 2582–2596.
- Zou, Z., Horowitz, L. F., Montmayeur, J.-P., Snapper, S., and Buck, L. B. Genetic tracing reveals a stereotyped sensory map in the olfactory cortex. *Nature*, 2001, 414, 173–179.
- Zukin, S. R., Pellegrini-Giampietro, D. E., Knapp, C. M., and Tempel, A. Opioid receptor regulation. *Handbook of Experimental Pharmacology*, 1993, 104, 107–123.
- Zumpe, D., Bonsall, R. W., Kutner, M. H., and Michael, R. P. Medroxyprogesterone acetate, aggression, and sexual behavior in male cynomolgus monkeys (*Macaca fascicularis*). *Hormones and Behavior*, 1991, 25, 394–409.