

## CURRICULUM VITAE

S. Marc Breedlove  
Neuroscience Program  
108 Giltner Hall  
Michigan State University  
East Lansing, MI 48824-1101  
(517) 355-1749  
Fax: (517) 432-2744  
Email: breeds@msu.edu  
www.marcbreedlove.com

Personal: b. 1954, Springfield, Mo.

Academic: Yale University, New Haven, CT.  
B.A., 1976, cum laude, psychology.  
Departmental honors.  
Angier prize for senior psychology research project.  
University of California, Los Angeles.  
M.A., 1978, psychology.  
Franz award for outstanding teaching assistant, 1979.  
Ph.D., 1982, physiological psychology.

Awards: Lindsley Prize from Society for Neuroscience, 1982.  
Presidential Young Investigator award, NSF, 1985.  
McKnight Foundation Scholar's award in neuroscience, 1985.  
Alfred P. Sloan Foundation Fellowship in Neurosciences, 1985.  
Early Career Award, American Psychological Association, 1987.  
James McKeen Cattell Sabbatical Award for Psychologists, 1993.  
Fellow, American Psychological Society, 1997.  
Grawemeyer Visiting Scholar, University of Louisville, 2004-2005.  
Distinguished Professor Award, Michigan State University, 2007.

Research interests: Sexual differentiation of the brain and spinal cord.  
Permanent and transient effects of hormones on neurons.  
Motoneuronal death during development.  
Effects of experience on developing and mature nervous systems.

Employment: Assistant Professor of Psychology, University of California, Berkeley, 1982-1987.  
Associate Professor of Psychology, University of California, Berkeley, 1987-1991.  
Professor of Psychology, University of California, Berkeley, 1991-2003.  
Barnett Rosenberg Professor of Neuroscience, Michigan State University, 2001-present.

Recent research grants: NINDS R01 NS28421, "Hormonal effects on behavior & spinal cord morphology" 1990-present.  
NIMH R01 MH58703, "Dimorphic changes in brains and behavior" 2000-2006.  
NIMH T32 MH70343, "Integrative neurobiology of social processes" 2004-present.  
NIMH R21 MH, "Fraternal birth order effects on behavior" 2008-present.  
NSF IOB-0608622 (Co-PI) "Summer school of behavioral neuroendocrinology" 2006-present.

Editorial Boards: *Hormones and Behavior*, 1987-present.  
*Journal of Sex Research*, 1988-1991.  
*Journal of Neuroscience*, 1990-1996.  
*Endocrinology*, 2005-2008.

## Publications:

- T.Allison, S.D.Gerber, S.M.Breedlove & G.L.Dryden (1977) A behavioral and polygraphic study of sleep in the shrews *Suncus murinus*, *Blarina brevicauda* and *Cryptotis parva*. *Behavioral Biology* 20: 354-366.
- J.M.Siegel, D.J.McGinty & S.M.Breedlove (1977) Sleep and waking activity of pontine gigantocellular field neurons. *Experimental Neurology* 56: 553-573.
- J.M.Siegel, S.M.Breedlove & D.J.McGinty (1979) Photographic analysis of relation between unit activity and movement. *Journal Neuroscience Methods* 1: 159-164.
- S.M.Breedlove, D.J.McGinty & J.M.Siegel (1979) Operant conditioning of pontine gigantocellular units. *Brain Research Bulletin* 4: 663-667.
- J.M.Siegel, R.L.Wheeler, S.M.Breedlove & D.J.McGinty (1980) Brainstem units related to movements of the pinna. *Brain Research* 202: 183-188.
- S.M.Breedlove & A.P.Arnold (1980) Hormone accumulation in a sexually dimorphic motor nucleus in the rat spinal cord. *Science* 210: 564-566.
- S.M.Breedlove & A.P.Arnold (1981) Sexually dimorphic motor nucleus in the rat lumbar spinal cord: response to adult hormone manipulation, absence in androgen-insensitive rats. *Brain Research* 225: 297-307.
- S.M.Breedlove (1982) Hormonal influences on a sexually dimorphic motor nucleus in the rat spinal cord. Ph.D. dissertation, University of California, Los Angeles.
- S.M.Breedlove, C.D.Jacobson, R.A.Gorski & A.P.Arnold (1982) Masculinization of the female rat spinal cord following a single injection of testosterone propionate but not estradiol benzoate. *Brain Research* 237: 173-181.
- C.L.Jordan, S.M.Breedlove & A.P.Arnold (1982) Sexual dimorphism in the dorsolateral motor nucleus of the rat lumbar spinal cord and its response to neonatal androgen. *Brain Research* 249: 309-314.
- S.M.Breedlove & A.P.Arnold (1983a) Hormonal control of a developing neuromuscular system: I. Complete demasculinization of the spinal nucleus of the bulbocavernosus in male rats using the anti-androgen, flutamide. *Journal of Neuroscience* 3: 417-423.
- S.M.Breedlove & A.P.Arnold (1983b) Hormonal control of a developing neuromuscular system: II. Sensitive periods for the androgen induced masculinization of the rat spinal nucleus of the bulbocavernosus. *Journal of Neuroscience* 3: 424-432.
- S.M.Breedlove & A.P.Arnold (1983c) Sex differences in the pattern of steroid accumulation by motoneurons of the rat lumbar spinal cord. *Journal of Comparative Neurology* 215: 211-216.
- S.M.Breedlove, C.L.Jordan & A.P.Arnold (1983) Neurogenesis of motoneurons in sexually dimorphic spinal nucleus of the bulbocavernosus in rats. *Developmental Brain Research* 9: 39-43.
- S.M.Breedlove (1983) Regional sex differences in steroid accumulation in vertebrate nervous systems. *Trends in Neuroscience* 6: 403-406.
- S.M.Breedlove (1984) Steroid influences on the development and function of a neuromuscular system. *Progress in Brain Research* 61: 147-170.
- S.M.Breedlove (1985) Hormonal control of the anatomical specificity of motoneuron to muscle innervation in rats. *Science* 227: 1357-1359.
- A.P.Arnold & S.M.Breedlove (1985) Organizational and activational effects of sex steroid hormones on vertebrate behavior: A re-analysis. *Hormones & Behavior*, 19:469-498.
- R.B.Fishman & S.M.Breedlove (1985) The androgenic induction of spinal sexual dimorphism is independent of supraspinal afferents. *Developmental Brain Research*, 23: 255-258.
- S.M.Breedlove (1986) Cellular analyses of hormone influence on motoneuronal development and function. *Journal of Neurobiology* 17: 157-176.
- N.G.Forger & S.M.Breedlove (1986) Sexual dimorphism in human and canine spinal cord: role of early androgen. *Proceedings National Academy of Science*, 83: 7527-7531.
- N.G.Forger & S.M.Breedlove (1987) Seasonal variation in mammalian striated muscle mass and motoneuron morphology. *Journal of Neurobiology*, 18: 155-165.
- M.N.Rand & S.M.Breedlove (1987) Ontogeny of functional innervation of bulbocavernosus muscles in male and female rats. *Developmental Brain Research*, 33: 150-152.
- N.G.Forger & S.M.Breedlove (1987) Motoneuronal death during human fetal development. *Journal of Comparative Neurology*, 264: 118-122.
- S.M.Breedlove (1988) BOOK REVIEW OF: "Masculinity/Femininity: Basic Perspectives", ed.by J.M.Reinisch, et al., 1987. *Journal of Sex Research*, 25: 566-570.
- R.B.Fishman & S.M.Breedlove (1988) Neonatal androgen maintains sexually dimorphic perineal muscles in the absence of innervation. *Muscle and Nerve*, 11:553-560.
- R.B.Fishman & S.M.Breedlove (1988) Sexual dimorphism in the developing nervous system. In, Handbook of Human Growth and Developmental Biology, E.Meisami & P.Timiras (Eds), CRC Press, Boca Raton.

- M.N.Rand & S.M.Breedlove (1988) Progress report on an hormonally sensitive neuromuscular system. *Psychobiology*, 16: 398-405.
- R.B.Fishman, L.Chism, G.L.Firestone & S.M.Breedlove (1990) Evidence for androgen receptors in sexually dimorphic perineal muscles of neonatal male rats; absence of androgen accumulation by the perineal motoneurons. *Journal of Neurobiology*, 21:694-704.
- R.J.Balice-Gordon, S.M.Breedlove, S.Bernstein & J.W.Lichtman (1990) Neuromuscular junctions shrink & expand without remodeling as muscle fiber size is manipulated. *Journal of Neuroscience*, 10: 2660-2671.
- S.M.Leber, S.M.Breedlove & J.R.Sanes (1990) Lineage, arrangement and death of clonally related motoneurons in chick spinal cord. *Journal of Neuroscience*, 10:2451-2462.
- N.G.Forger & S.M.Breedlove (1991) Steroid influences on a mammalian neuromuscular system. *Seminars in the Neurosciences*, 3: 459-468.
- C.L.Jordan, S.M.Breedlove & A.P.Arnold (1991) Ontogeny of steroid accumulation in spinal lumbar motoneurons of the rat: implications for androgen's site of action during synapse elimination. *Journal of Comparative Neurology*, 313: 441-448.
- M.Leslie, N.G.Forger & S.M.Breedlove (1991) Does androgen affect axonal transport of CT-HRP in spinal motoneurons? *Neuroscience Letters*, 126: 199-202.
- M.Leslie, N.G.Forger & S.M.Breedlove (1991) Sexual dimorphism and androgen effects on spinal motoneurons innervating rat flexor digitorum brevis. *Brain Research*, 561:269-273
- E.P.Monaghan & S.M.Breedlove (1991) "Hormonal influences on behavior", article for Encyclopedia of Human Biology, Vol. 4, R.Dulbecco (Ed.), Academic Press, San Diego.
- E.P.Monaghan & S.M.Breedlove (1991) Brain sites projecting to the spinal nucleus of the bulbocavernosus. *Journal of Comparative Neurology*, 307: 370-374.
- J.B.Becker, S.M.Breedlove & D.Crews (eds., 1992) Behavioral Endocrinology, MIT Press, Cambridge, MA.
- S.M.Breedlove (1992) Sexual dimorphism in the vertebrate CNS. *Journal of Neuroscience*, 12: 4133-4142.
- N.G.Forger, R.B.Fishman & S.M.Breedlove (1992) Differential effects of testosterone metabolites upon the size of sexually dimorphic motoneurons in adulthood. *Hormones and Behavior*, 26: 204-213.
- M.N.Rand & S.M.Breedlove (1992) Androgen locally regulates rat bulbocavernosus and levator ani size. *Journal of Neurobiology*, 23: 17-30.
- N.G.Forger, L.L.Hodges, S.L.Roberts & S.M.Breedlove (1992) Regulation of motoneuron death in spinal nucleus of the bulbocavernosus. *Journal of Neurobiology*, 23:1192-1203.
- E.P.Monaghan & S.M.Breedlove (1992) The role of the bulbocavernosus in penile reflex behavior in rats. *Brain Research*, 587: 178-180.
- R.B.Fishman & S.M.Breedlove (1992) Local perineal implants of anti-androgen block masculinization of the SNB. *Developmental Brain Research*, 70:283-286.
- S.M.Breedlove (1993) A brain divided. REVIEW of "Brain circuits and functions of the mind: essays in honor of Roger W. Sperry. Cambridge Univ. Press, NY.1990. *Contemporary Psychology*, 38: 634-665.
- N.G.Forger, L.L.Hodges & S.M.Breedlove (1993) The ontogeny of calcitonin gene-related peptide immunoreactivity in rat lumbar motoneurons: Delayed appearance & sexual dimorphism in the spinal nucleus of the bulbocavernosus. *Journal of Comparative Neurology*, 330: 514-520.
- L.Hodges, C.L.Jordan & S.M.Breedlove (1993) Hormone-sensitive periods for the control of motoneuron number and soma size in the dorsolateral nucleus of the rat spinal cord. *Brain Research*, 602: 187-190.
- E.P.Monaghan, J.Arjomand & S.M.Breedlove (1993) Brain lesions affect penile reflexes. *Hormones and Behavior*, 27: 122-131.
- L.M.Freeman & S.M.Breedlove (1993) Steroid receptors in the central nervous system. In Methods in Neurosciences, Vol. 11. P.M.Conn (ed), Academic Press, Orlando. pp1-15.
- N.G.Forger, S.L.Roberts, V.Wong & S.M.Breedlove (1993) Ciliary neurotrophic factor maintains motoneurons and their target muscles in developing rats. *Journal of Neuroscience*, 13: 4720-4726.
- S.M.Breedlove (1993) REVIEW of "Sexual differentiation", A.A.Gerall, H.Moltz, I.L.Ward (eds), Plenum Press, NY. 1992. *Quarterly Review of Biology*, 68:615-616.
- S.M.Breedlove (1994) Sexual differentiation of the human nervous system. *Annual Review of Psychology*, 45: 389-418.
- S.M.Breedlove (1995) The other important organ. *Nature* 378: 15-16. [commentary]
- S.M.Breedlove (1995) Transessuali il corpo sbagliato. *La Repubblica*. 4 November issue, Cultura section.
- L.M.Freeman, B.A.Padgett, G.A.Prins, S.M.Breedlove (1995) Distribution of androgen receptor immunoreactivity in the spinal cord of wild-type, androgen-insensitive and gonadectomized male rats. *Journal of Neurobiology*, 27: 51-59.
- M.N.Rand & S.M.Breedlove (1995) Androgen alters the dendritic arbors of SNB motoneurons by acting upon their target muscles. *Journal of Neuroscience*, 15: 4408-4416.
- L.M.Freeman & S.M.Breedlove (1995) Motoneurons innervating guinea pig perineal muscles are sexually dimorphic in size but not number. *Brain Research*, 690: 1-7.
- N.G.Forger, V.Wong & S.M.Breedlove (1995) Ciliary neurotrophic factor arrests muscle and motoneuron degeneration in

- androgen-insensitive rats. *Journal of Neurobiology*, 28: 354-362.
- N.G.Forger, L.G.Frank, S.M.Breedlove & S.E.Glickman (1996) Sexual dimorphism of perineal muscles and motoneurons in spotted hyenas. *Journal Comparative Neurology*, 375: 333-343.
- M.R.Rosenzweig, A.L.Leiman & S.M.Breedlove (1996) Biological Psychology. Sinauer Associates, Sunderland, MA.
- L.M.Freeman, N.V.Watson & S.M.Breedlove (1996) Androgen spares androgen-insensitive motoneurons from apoptosis in the spinal nucleus of the bulbocavernosus in rats. *Hormones and Behavior*, 30: 424-433.
- S.M.Breedlove (1997) Neonatal androgen and estrogen treatments masculinize the size of motoneurons in the rat spinal nucleus of the bulbocavernosus. *Cellular and Molecular Neurobiology*, 17: 687-697.
- S.M.Breedlove (1997) Sex on the brain. *Nature*, 389: 801.
- S.M.Breedlove (1997) review of Sex on the brain: the biological differences between men and women by D.Blum. *Nature Medicine*, 11: 1291.
- S.E.Christensen & S.M.Breedlove (1998) The seductive allure of dichotomies. *Behavioral & Brain Sciences*, 21: 367-368.
- C.D. Hegstrom & S.M.Breedlove (1998) Short day lengths delay development of the SNB neuromuscular system in the Siberian hamster, *Phodopus sungorus*. *Journal of Neurobiology*, 35: 355-360.
- B.M. Cooke, C.D. Hegstrom, L.S. Villeneuve, & S.M. Breedlove (1998) Sexual differentiation of the vertebrate brain: principles and mechanisms. *Frontiers in Neuroendocrinology*, 19: 323-362.
- S.M.Breedlove (1999) Liberating libido. *OBGYN*, 10: 28-30. [review]
- S.M.Breedlove (1999) "Reproductive system" entry In: Encyclopedia of Psychology, A.E. Kazdin (Ed.). APA & Oxford University Press, Washington, D.C.
- M.R.Rosenzweig, A.L.Leiman & S.M.Breedlove (1999) Biological Psychology, 2<sup>nd</sup> ed. Sinauer Associates, Sunderland, MA.
- C.D. Hegstrom & S.M. Breedlove (1999) Seasonal plasticity of a neuromuscular system in adult Siberian hamsters, (*Phodopus sungorus*). *Brain Research*, 819: 83-88.
- B.M. Cooke, G. Tabibnia & S.M. Breedlove (1999) A brain sexual dimorphism controlled by adult androgen. *Proc. Natl. Acad. Sci. (USA)*, 96: 7538-7540.
- G. Tabibnia, B.M. Cooke & S.M. Breedlove (1999) Sex difference and laterality in the volume of the mouse dentate gyrus granule cell layer. *Brain Research*, 827: 41-45.
- C.D. Hegstrom & S.M. Breedlove (1999) Social cues attenuate photoresponsiveness of the male reproductive system in Siberian hamsters (*Phodopus sungorus*). *Journal of Biological Rhythms*, 14: 54-61.
- S.M. Breedlove, B.M. Cooke and C.L. Jordan (1999) The orthodox view of sexual differentiation of the brain. *Brain, Behavior and Evolution*, 54: 8-14.
- C.D. Hegstrom & S.M.Breedlove (1999) Short day lengths affect perinatal development of the male reproductive system in the Siberian hamster, *Phodopus sungorus*. *Journal Biological Rhythms*, 14: 402-408.
- S.M. Breedlove (1999) Bending gender. *New Scientist*, 163: 52-53. [opinion piece]
- S.E. Christensen, C.L. Jordan & S.M. Breedlove (2000) Sexual differentiation of a neuromuscular system. In Sexual Differentiation of the Brain, A. Matsumoto (ed) pp.149-174. CRC Press, Boca Raton, FL.
- T.J. Williams, M.E. Pepitone, S.E. Christensen, B.M. Cooke, A.D.Huberman, N.J.Breedlove, T.J.Breedlove, C.L.Jordan & S.M.Breedlove (2000) Finger-length ratios and sexual orientation. *Nature*, 404: 455-456.
- B.M. Cooke, W. Chowanadisai & S.M. Breedlove (2000) Post-weaning social isolation of male rats reduces the volume of the medial amygdala and leads to deficits in adult sexual behavior. *Behavioural Brain Research*, 117: 107-113.
- S.M. Breedlove (2000) review of Sexing the body: gender politics and the construction of sexuality by Anne Fausto-Sterling. *New England Journal of Medicine* 343: 668.
- S.M.Breedlove & C.L. Jordan (2001) The increasingly plastic, hormone-responsive adult brain. *Proceedings National Academy Sciences USA*, 98: 2956-2957.
- N.V.Watson, L.M. Freeman & S.M. Breedlove (2001) Neuronal size in the spinal nucleus of the bulbocavernosus (SNB): direct modulation by androgen in animals with mosaic androgen insensitivity. *Journal of Neuroscience*, 21: 1062-1067.
- A.P.Lieberman, D.L. Friedlich, G. Harmison, B.W. Howell, C.L. Jordan, S.M. Breedlove, K.H. Fischbeck (2001) Androgens regulate the mammalian homologues of invertebrate sex determination genes tra-2 and fox-1. *Biochem Biophys Res Commun* 282: 499-506.
- B.M.Cooke, C.D.Hegstrom, A.Keen & S.M.Breedlove (2001) Photoperiod and social cues influence the medial amygdala but not the bed nucleus of the stria terminalis in the Siberian hamster. *Neuroscience Letters*, 312: 9-12.
- S.M. Breedlove, C.L. Jordan & D.B. Kelley (2002) What studies of neuromuscular systems tell us about sexual differentiation of brain and behavior. Hormones, Brain and Behavior, D.W. Pfaff, (Ed). Vol. 4, 193-222.
- M.R.Rosenzweig, S.M.Breedlove & A.L.Leiman (2002) Biological Psychology, 3<sup>rd</sup> ed. Sinauer Associates, Sunderland, MA.
- W.M. Brown, C.J. Finn, B.M. Cooke & S.M. Breedlove (2002) Differences in finger length ratios between self-identified "butch" and "femme" lesbians. *Archives of Sexual Behavior*, 31: 117-121.
- C.D. Hegstrom, C.L. Jordan & S.M. Breedlove (2002) Photoperiod and androgen act independently to induce neuromuscular plasticity in the Siberian hamster, *Phodopus sungorus*. *Journal of Neuroendocrinology*, 14: 1-13.

- B.M. Cooke, C.D. Hegstrom & S.M. Breedlove (2002) Photoperiod-dependent response to androgen in the medial amygdala of the Siberian hamster, *Phodopus sungorus*. *Journal of Biological Rhythms*, 17: 147-154.
- W.M. Brown, C.J. Finn & S.M. Breedlove (2002) Sexual dimorphism in digit-length ratios of laboratory mice. *Anatomical Record*, 267: 231-234.
- J.B. Becker, S.M. Breedlove, D. Crews & M.M. McCarthy (Eds. 2002) *Behavioral Endocrinology*, 2<sup>nd</sup> ed. MIT Press, Cambridge, MA.
- W.M. Brown, M. Hines, B. Fane, & S. M. Breedlove (2002) Masculinized finger length patterns in human males and females with congenital adrenal hyperplasia. *Hormones and Behavior*, 42: 380-386.
- C.L. Jordan, S.E. Christensen, R.J. Handa, J.E. Anderson, W.A. Pouliot & S.M. Breedlove (2002) Evidence that androgen acts through NMDA receptors to affect motoneurons in the rat spinal nucleus of the bulbocavernosus. *Journal of Neuroscience*, 22: 9567-9572.
- B.M. Cooke, S.M. Breedlove & C.L. Jordan (2003) Both estrogen receptors and androgen receptors contribute to testosterone-induced changes in morphology of the medial amygdala & sexual arousal in male rats. *Hormones & Behavior*, 43:336-46.
- S.M. Breedlove (2003) Review of Digit Ratio by John T. Manning. *American Journal of Human Biology*, 15: 463-464.
- D.A. Monks, J.S. Lonstein & S.M. Breedlove (2003) Got milk? Oxytocin triggers hippocampal plasticity. *Nature Neuroscience*, 6: 327-328.
- S.M. Breedlove (2003) Love and pain meet in the brain. *Nature Neuroscience*, 6: 785.
- S.M. Breedlove (2004) Review of *Human Sexuality* by S. LeVay & S.M. Valente. *Archives of Sexual Behavior*, 33: 169-170.
- J.A. Morris, K.L. Gobrogge, C.L. Jordan & S.M. Breedlove (2004) Brain aromatase: Dyed-in-the-wool homosexuality. *Endocrinology*, 145: 475-477.
- E.N. Ottem, D.G. Zuloaga & S.M. Breedlove (2004) Brain gender: prostaglandins have their say. *Nature Neuroscience*, 7: 570-572.
- J.A. Johansen, C.L. Jordan & S.M. Breedlove (2004) Steroid hormone masculinization of neural structure in rats: a tale of two nuclei. *Physiology and Behavior*, 83: 271-277.
- J.A. Morris, C.L. Jordan & S.M. Breedlove (2004) Sexual differentiation of the vertebrate nervous system. *Nature Neuroscience*, 7: 1034-1039.
- McFadden, D., J.C. Loehlin, S.M. Breedlove, R.A. Lippa, J.T. Manning & Q. Rahman (2005) A reanalysis of five studies on sexual orientation and the relative length of the 2nd and 4th fingers. *Archives Sexual Behavior*, 34: 341-356.
- J.A. Morris, C.L. Jordan & S.M. Breedlove (2005) Partial demasculinization of several brain regions in adult male (XY) rats with a dysfunctional androgen receptor gene. *Journal of Comparative Neurology*, 487: 217-226.
- M.R. Rosenzweig, S.M. Breedlove & N.V. Watson (2005) *Biological Psychology* 4<sup>th</sup> ed. Sinauer Associates, Sunderland, MA.
- R. Blanchard, J.M. Cantor, A.F. Bogaert, S.M. Breedlove & L. Ellis (2006) Interaction of fraternal birth order and handedness in the development of male homosexuality. *Hormones and Behavior*, 49: 405-413.
- K.L. Klump, K.L. Gobrogge, P.S. Perkins, D. Thorne, C.L. Sisk & S.M. Breedlove (2006) Evidence that gonadal hormones organize and activate disordered eating. *Psychological Medicine*, 36: 539-546.
- Puts, D.A., C.L. Jordan & S.M. Breedlove (2006) Defending the brain from estrogen. *Nature Neuroscience*, 9: 3-4.
- Walder, D.J., T. Anderson, A.L. McMillan, S.M. Breedlove & E.F. Walker (2006) Sex differences in digit ratio are disrupted in adolescents with schizotypal personality disorder. *Schizophrenia Research*, 86: 118-122.
- Puts, D.A., C.L. Jordan & S.M. Breedlove (2006) O brother where art thou? The fraternal birth order effect on human sexual orientation. *Proceedings National Academy Sciences (USA)* 103: 10531-10532.
- Monks, D.A., W. Kopachik, S.M. Breedlove, C.L. Jordan (2006) Anabolic responsiveness of skeletal muscles correlates with androgen receptor protein but not mRNA. *Canadian Journal Physiology Pharmacology* 84: 273-7.
- Breedlove, M., S. Light, C. Parks & M. Greene (2006) Tackling investigator noncompliance: Cooperation counts. *Laboratory Animal (NY)* 35: 16-7.
- Zuloaga, D.G., J.A. Morris, D.A. Monks, S.M. Breedlove, C.L. Jordan (2007) Androgen-sensitivity of somata and dendrites of spinal nucleus of the bulbocavernosus (SNB) motoneurons in male C57BL6J mice. *Hormones & Behavior*, 51: 207-212.
- Dugger, B.N., J.A. Morris, C.L. Jordan, S.M. Breedlove (2007) Androgen receptors are required for full masculinization of the ventromedial hypothalamus (VMH) in rats. *Hormones & Behavior*, 51: 195-201.
- Puts, D.A., S.J.C. Gaulin & S.M. Breedlove (2007) Sex differences in spatial ability: evolution, hormones and the brain. In *Evolutionary Cognitive Neuroscience*, S.M. Platek et al., (Eds). MIT Press, Cambridge, MA.
- Breedlove, S.M. (2007) Review of Introduction to Behavioral Neuroendocrinology. *Quarterly Review Biology*. 82: 76.
- Breedlove, S.M., M.R. Rosenzweig & N.V. Watson (2007) *Biological Psychology* 5<sup>th</sup> ed. Sinauer, Sunderland, MA.
- Durazzo, A., J.A. Morris, S.M. Breedlove & C.L. Jordan (2007) Effects of the testicular feminization mutation (*TFM*) of the androgen receptor gene on BNSTpm volume and morphology in rats. *Neuroscience Letters*, 419: 168-171.
- Gobrogge, K.L., P.S. Perkins, J.H. Baker, K.D. Balcer, S.M. Breedlove & K.L. Klump (2007) Homosexual mating preferences from an evolutionary perspective: a naturalistic approach. *Archives of Sexual Behavior*, 36: 717-723.
- Johansen, J.A., S.M. Breedlove & C.L. Jordan (2007) Androgen receptor expression in the levator ani muscle of male mice. *Journal of Neuroendocrinology*, 19: 823-826.

- Ottum, E.N., L.A.Beck, C.L.Jordan & S.M.Breedlove (2007) Androgen-dependent regulation of brain-derived neurotrophic factor and tyrosine kinaseB in sexually dimorphic spinal nucleus of the bulbocavernosus. *Endocrinology*, 148: 3655-3739.
- Cooke, B.M., C.L.Jordan & S.M.Breedlove (2007) Pubertal growth of the medial amygdala delayed by short photoperiods in the Siberian hamster, *Phodopus sungorus*. *Hormones and Behavior*, 52: 283-288.
- Shah, N.M. & S.M.Breedlove (2007) Behavioural neurobiology: Females can also be from Mars. *Nature*, 448: 999-1000.
- Monks, D.A., J.A.Johansen, K.Mo, P.Rao, B.Eagleson, Z.Yu, A.P.Lieberman, S.M.Breedlove & C.L.Jordan (2007) Over-expression of wildtype androgen receptor in muscle recapitulates polyglutamine disease. *Proceedings National Academy Sciences (USA)*, 104: 18259-18264.
- Morris, J.A., C.L.Jordan & S.M.Breedlove (2008) Sexual dimorphism in neuronal number of the posterodorsal medial amygdala is independent of circulating androgens and regional volume in adult rats. *J Comparative Neurology*, 506: 851-859.
- Culbert, K.M., S.M.Breedlove, S.A.Burt & K.L.Klump (2008) Prenatal testosterone exposure and risk for eating disorders: a comparison of opposite-sex and same-sex twins. *Archives of General Psychiatry*, 65: 329-336.
- Puts, D.A., M.A.McDaniel, C.L.Jordan & S.M.Breedlove (2008) Spatial ability and prenatal androgens: meta-analysis of CAH and digit ratio studies. *Archives Sexual Behavior*, 37: 100-111.
- Martin, J., D.A.Puts & S.M.Breedlove (2008) Fluctuating asymmetry in the hands of homosexuals and heterosexuals: Relationships to digit ratios and other sexually dimorphic anatomical traits. *Archives of Sexual Behavior*, 37: 119-132.
- Gobrogge, K.L., S.M.Breedlove & K.L.Klump (2008) Genetic and environmental influences on 2d:4d finger length ratios: a study of monozygotic and dizygotic male and female twins. *Archives Sexual Behavior*, 37: 112-118.
- Durazzo, A. & S.M.Breedlove (2008) Fraternalizing with gender differences. *Nature Neuroscience*, 11: 525.
- Morris, J.A., C.L.Jordan, Z.A.King, K.V.Northcutt & S.M.Breedlove (2008) Sexual dimorphism and steroid responsiveness of the posterodorsal medial amygdala in adult mice. *Brain Research*, 1190: 115-121.
- Bucci, D.J., A.N.Nunez, S.M.Breedlove, C.L.Sisk, J.T.Nigg (2008) Effects of sex hormones on associative learning in the spontaneously hypertensive rat. *Physiology & Behavior*, 93: 651-657.
- Martel, M.M., K.L.Gobrogge, S.M.Breedlove & J.T.Nigg (2008) Masculinized finger length ratios of boys, but not girls, are associated with attention-deficit/hyperactivity disorder. *Behavioral Neuroscience*, 122: 273-281.
- Dugger, B.N., J.A.Morris, C.L.Jordan & S.M.Breedlove (2008) Gonadal steroids regulate neural plasticity in the sexually dimorphic nucleus of the preoptic area (SDNPOA) of adult male and female rats. *Neuroendocrinology*, 88: 17-24.
- Zuloaga, D.G., D.A.Puts, C.L.Jordan & S.M.Breedlove (2008) The role of androgen receptors in the masculinization of brain & behavior: What we've learned from the testicular feminization mutation (Tfm). *Hormones and Behavior*, 53: 613-626.
- Sakamoto, H., K.-I.Matsuda, D.G.Zuloaga, H.Hongu, E.Wada, K.Wada, C.L.Jordan, S.M.Breedlove & M.Kawata (2008) Sexually dimorphic gastrin releasing peptide system in the spinal cord controlling male reproductive functions. *Nature Neuroscience*, 11:634-636.
- Zuloaga, D.G. & S.M.Breedlove (2008?) Sexual differentiation of the central nervous system. *Encyclopedia of Neuroscience* in press.
- Zuloaga, D.G., J.A.Morris, C.L.Jordan & S.M.Breedlove (2008) Mice with the testicular feminization mutation demonstrate a role for androgen receptors in the regulation of anxiety-related behaviors and the hypothalamic-pituitary-adrenal axis. *Hormones and Behavior*, 54: 758-766.
- Johnson, R.T., S.M.Breedlove & C.L.Jordan (2008) Sex differences and laterality in astrocyte number and complexity in the adult rat medial amygdala. *Journal of Comparative Neurology*, 511: 599-609.
- Martel, M.M., K.L.Klump, J.T.Nigg, S.M.Breedlove & C.L.Sisk (2008?) Potential hormonal mechanisms of Attention-Deficit/Hyperactivity Disorder and Major Depressive Disorder: A new perspective. *Hormones & Behavior*, in press.
- Zuloaga, D.G., C.L.Jordan & S.M.Breedlove (2008?) Elevated anxiety-related behavior and corticosterone response in rats with the testicular feminization mutation. Submitted.
- Johansen JA, Yu Z, Mo K, Monks DA, Lieberman AP, Breedlove SM, Jordan CL. (2008) Recovery of function in a myogenic mouse model of spinal bulbar muscular atrophy. *Neurobiol Dis.* 2008 Dec 31.
- Sakamoto H, Matsuda K, Zuloaga DG, Nishiura N, Takanami K, Jordan CL, Breedlove SM, Kawata M. (2009) Stress affects a gastrin-releasing peptide system in the spinal cord that mediates sexual function: implications for psychogenic erectile dysfunction. *PLoS ONE*. 2009;4(1):e4276. In press.