

CURRICULUM VITAE

GARY DOHANICH, Ph.D.

Professor, Department of Psychology
Co-Director, Major and Masters Program in Neuroscience
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EDUCATIONAL BACKGROUND

B.S. in Psychology, Lehigh University, Bethlehem, PA (1974).

M.S. in Experimental Psychology, Villanova University, Villanova, PA (1977).

Ph.D. in Zoology, Michigan State University, East Lansing, MI (1981).

PROFESSIONAL APPOINTMENTS

Postdoctoral Fellow (National Institutes of Health NRSA),
Rockefeller University, New York, NY, Dr. Bruce McEwen, major advisor (1982-1985)

Assistant Professor, Department of Psychology,
Tulane University, New Orleans, LA (1985-1991)

Associate Professor, Department of Psychology,
Tulane University, New Orleans, LA (1991-1997)

Full Professor, Department of Psychology,
Tulane University, New Orleans, LA (1997-present)

Acting Chair, Department of Psychology,
Tulane University, New Orleans, LA (F1995, F2006)

Co-Director, Undergraduate Major in Neuroscience, Masters Programs in Neuroscience
Tulane University, New Orleans, LA (2000-present)

Member, Neuroscience Graduate Program,
Tulane University, New Orleans, LA (1985-present)

Faculty Associate, Women's Studies Program,
Tulane University, New Orleans, LA (2001-present)

MAJOR EXTRAMURAL RESEARCH SUPPORT

Postdoctoral National Research Service Award, National Institutes of Health, 1982-1985.

National Institute of Child Health and Human Development Grant, 1987-1991, *Cholinergic Regulation of Sexual Behavior* (R01 HD22235).

National Science Foundation, 1991-1995, *Cholinergic Regulation of Behavior*.

National Science Foundation, 1993-2000, *Research Experiences for Undergraduates*.

Louisiana Board of Regents Education Quality Support Award, 1994, *Enhancement of Psychobiology Laboratories for the Implementation and Instruction of Cellular and Molecular Techniques in the Investigation of Behavior*.

National Science Foundation, 1995-1998, *Estrogen Regulation of Learning and Memory*.

National Science Foundation, 1998-2002, *Estrogen Regulation of Learning and Memory*.

National Institutes of Health, 2000-2003, PI: David Gozal; Co-PIs: Avital Shurr and Gary Dohanich, *REM Deprivation, Hypoxia, and Hippocampal Function*.

Louisiana Board of Regents Enhancement Award, 2003-2004, *Neurobiotechnology Laboratory for Graduate and Undergraduate Students*.

HONORS AND AWARDS

The *Student Senate Annual Award for Excellence in Teaching*, College of Liberal Arts and Sciences, Tulane University, 1987, awarded to one LAS faculty member annually.

The *Student Senate Annual Award for Excellence in Academic Advising*, College of Liberal Arts and Sciences, Tulane University, 1988 and 2001, awarded to one LAS faculty member annually.

Mortar Board Salutes Excellence in Academics, Newcomb College, Tulane University, 1993, 1995, 1997, 1998, 1999, 2000, 2001, 2002, 2003.

Randolf C. Read Award for Excellence in Teaching, Liberal Arts and Sciences Faculty, Tulane University, 1995, awarded to two LAS faculty members annually.

Sheldon Hackney Award for Excellence in Teaching, Tulane University, 1996, awarded to one LAS faculty member annually.

Presidential Certificate for Undergraduate Interdisciplinary Teaching, President's Office, Tulane University, 2000, awarded to 5 University faculty members.

Newcomb College Mortar Board Annual Award for Excellence in Teaching, Newcomb College, Tulane University, 2000, awarded to one LAS faculty member annually.

Tulane College Senior Class Outstanding Advisor Award for Exemplary Service to Students, Tulane College, 2001, awarded to one LAS faculty member annually.

Suzanne and Stephen Weiss Presidential Fellowship for Inspired Teaching and Distinctive Contributions to Undergraduate Education, 2007, awarded to two faculty members annually.

PUBLICATIONS

Peer-reviewed Empirical Journal Articles

Gladue, B. A., G. P. Dohanich, and L. G. Clemens. Hormonally-mediated lordosis in female rats: Actions of flutamide and an aromatization inhibitor. Pharmacology Biochemistry and Behavior 9:827-832, 1978.

Meisel, R. L., G. P. Dohanich, and I. L. Ward. Effects of prenatal stress on avoidance acquisition, open-field performance, and lordotic behavior. Physiology and Behavior 22:527-530, 1979.

Dohanich, G. P. and I. L. Ward. Sexual behavior in male rats following intracerebral application of estrogen. Journal of Comparative and Physiological Psychology 94:634-640, 1980.

Clemens, L. G., R. R. Humphrys, and G. P. Dohanich. Cholinergic brain mechanisms and the hormonal regulation of female sexual behavior in the rat. Pharmacology Biochemistry and Behavior 13:81-88, 1980.

Clemens, L. G. and G. P. Dohanich. Inhibition of lordotic behavior in female rats following intracerebral infusion of anticholinergic agents. Pharmacology Biochemistry and Behavior 13:89-95, 1980.

Clemens, L. G., G. P. Dohanich, and J. A. Witcher. Cholinergic influences on estrogen-dependent sexual behavior in female rats. Journal of Comparative and Physiological Psychology 95:763-770, 1981.

Dohanich, G. P. and L. G. Clemens. Brain areas implicated in cholinergic regulation of sexual behavior. Hormones and Behavior 15:157-167, 1981.

Dohanich, G. P., J. A. Witcher, D. R. Weaver, and L. G. Clemens. Alteration of muscarinic binding in specific brain areas following estrogen treatment. Brain Research 241:347-350, 1982.

Dohanich, G. P. and L. G. Clemens. Inhibition of estrogen-activated sexual behavior by androgens. Hormones and Behavior 17:366-373, 1983.

Dohanich, G. P., P. J. Barr, J. A. Witcher, and L. G. Clemens. Pharmacological and anatomical aspects of cholinergic activation of female sexual behavior. Physiology and Behavior 32: 1021-1026, 1984.

Dohanich, G. P., J. A. Witcher, and L. G. Clemens. Prenatal antiandrogen feminizes behavioral but not neurochemical response to estrogen. Pharmacology Biochemistry and Behavior 23:397-400, 1985.

Dohanich, G. P., A. E. Johnson, B. Nock, B. S. McEwen, and H. H. Feder. Distribution of cholinergic muscarinic binding sites in guinea pig brain as determined by in vitro autoradiography of [³H]N-methyl scopolamine binding. European Journal of Pharmacology 119:9-16, 1985.

Dohanich, G. P., S. Halpain, L. T. Lambdin, and B. S. McEwen. Features of ligand binding in homogenate and section preparations. Brain Research 366:338-342, 1986.

Dohanich, G. P. and B. S. McEwen. Cholinergic limbic projections and behavioral role of basal forebrain nuclei in the rat. Brain Research Bulletin 16:477-482, 1986.

Meisel, R. L., G. P. Dohanich, B. S. McEwen, and D. W. Pfaff. Antagonism of sexual behavior in female rats by ventromedial hypothalamic implants of antiestrogen. Neuroendocrinology

45:201-207, 1987.

Clemens, L. G., P. J. Barr, and G. P. Dohanich. Cholinergic regulation of female sexual behavior in rats demonstrated by manipulation of endogenous acetylcholine. Physiology and Behavior 45:437-442, 1989.

Menard, C. S. and G. P. Dohanich. Scopolamine inhibition of lordosis in naturally cycling female rats. Physiology and Behavior 45:819-823, 1989.

Dohanich, G. P. and D. A. Cada. Reversal of androgen-inhibition of estrogen-activated sexual behavior by cholinergic agents. Hormones and Behavior 23:503-513, 1989.

Dohanich, G. P., D. M. McMullan, and M. M. Brazier. Cholinergic regulation of sexual behavior in female hamsters. Physiology and Behavior 47:127-131, 1990.

Hunter, R. E., C. M. Barrera, G. P. Dohanich, and W. P. Dunlap. Effects of caffeine and uric acid on A1 adenosine receptor binding in developing rat brain, Pharmacology Biochemistry and Behavior 35:791-795, 1990.

Menard, C. S. and G. P. Dohanich. Physostigmine facilitation of lordosis in naturally cycling female rats, Pharmacology Biochemistry and Behavior 36: 853-858, 1990.

Dohanich, G. P., D. M. McMullan, D. A. Cada, and K. A. Mangum. Muscarinic receptor subtypes and sexual behavior in female rats, Pharmacology Biochemistry and Behavior 38:115-124, 1991.

Menard, C. S., T. J. Hebert, S. M. Ross, and G. P. Dohanich. The effects of estrogen treatment on scopolamine inhibition of lordosis. Hormones and Behavior 26:364-374, 1992.

Dohanich, G. P., S. M. Ross, T. J. Francis, A. J. Fader, B. E. F. Wee, M. M. Brazier, and C. S. Menard. The effects of a muscarinic antagonist on various components of female sexual behavior. Behavioral Neuroscience 107:819-826, 1993.

Menard, C. S. and G. P. Dohanich. Estrogen dependence of cholinergic systems that regulate lordosis in cycling female rats. Pharmacology Biochemistry and Behavior 48:417-421, 1994.

Hebert, T. J., M. F. Cashion, and G. P. Dohanich. The effect of hormonal treatment and history on scopolamine inhibition of lordosis. Physiology and Behavior 56:835-839, 1994.

Dohanich, G. P., A. J. Fader, and D. J. Javorsky. Estrogen and estrogen/progesterone treatments counteract the effect of scopolamine on T-maze performance in female rats. Behavioral Neuroscience 108:988-992, 1994.

Menard, C. S., T. J. Hebert, G. P. Dohanich, and R. E. Harlan. Androgenic-anabolic steroids modify β -endorphin immunoreactivity in the rat brain. Brain Research 669:255-262, 1995.

Hebert, T. J., C. S. Menard, and G. P. Dohanich. Inhibition of lordosis in female hamsters and rats by 8-OH-DPAT treatment. Physiology and Behavior 57:523-527, 1995.

Wee, B. E. F., T. J. Francis, Lee, C. Y. Lee, J. M. Lee, and G. P. Dohanich. Mate preference and avoidance in female rats following treatment with scopolamine. Physiology and Behavior 58:97-100, 1995.

Daniel, J. M., A. J. Fader, A. Spencer, and G. P. Dohanich. Estrogen enhances performance of

female rats during acquisition of a radial arm maze. Hormones and Behavior 32:217-225, 1997.

Dohanich, G. P., J. M. Daniel, A. J. Fader, S. C. Wolff, P. M. Gallogly, and D. M. Overstreet. Sexual behaviors of Flinders Line female rats bred for differential cholinergic sensitivities. Hormones and Behavior 33:77-84, 1998.

Fader, A. J., A. W. Hendricson, and G. P. Dohanich. Estrogen improves performance of reinforced T-Maze alternation and prevents the amnesic effects of scopolamine administered systemically or intrahippocampally. Neurobiology of Learning and Memory 69:225-240, 1998.

Fader, A. J., P. E. M. Johnson, and G. P. Dohanich. Estrogen improves working but not reference memory and prevents amnesic effects of scopolamine on a radial-arm maze. Pharmacology, Biochemistry, and Behavior 62:711-717, 1999.

Daniel, J. M., S. L. Roberts, and G. P. Dohanich. Effects of ovarian hormones and environment on radial maze and water maze performance of female rats, Physiology and Behavior 66:11-20, 1999.

Gozal, D., J. M. Daniel, and G. P. Dohanich. Behavioral and anatomical correlates of chronic episodic hypoxia during sleep in the rat. Journal of Neuroscience 21:2442-2459, 2001.

Daniel, J. M. and G. P. Dohanich. Acetylcholine modulates the estrogen-induced increase in NMDA receptor binding in CA1 of the hippocampus and the associated improvement in working memory. Journal of Neuroscience 21:6949-6956, 2001.

Hruska, Z. and G. P. Dohanich. Estradiol Treatment Prevents Working Memory Deficits Induced by Combined Infusion of β -Amyloid (1-42) and Ibotenic Acid. Hormones and Behavior, in press, 2007.

Invited Reviews and Chapters

Clemens, L. G., G. P. Dohanich, and P. J. Barr. Cholinergic regulation of feminine sexual behavior in laboratory rats. In Hormones and Behavior in Higher Vertebrates, edited by J. Balthazart, E. Prove, and R. Gilles, Springer-Verlag, Berlin Heidelberg, pp 56-68, 1983.

Dohanich, G. P., B. Nock, and B. S. McEwen. Steroid hormones, receptors, and neurotransmitters. In Molecular Mechanisms of Steroid Hormone Action, edited by V.K. Moudgil, Walter de Gruyter and Company, Berlin-New York, pp.701-732, 1985.

Dohanich, G. P. Cholinergic regulation of female sexual behavior. In Neurobiological Effects of Sex Steroid Hormones, edited by P. Micevych and R. Hammer. New York: Cambridge University Press, pp. 184-206, 1995.

Dohanich, G. P. Gonadal steroids, learning, and memory. In Hormones, Brain and Behavior, edited by D. W. Pfaff, A. P. Arnold, A. M. Etgen, S. E. Fahrbach, and R. T. Rubin. San Diego: Academic Press (Elsevier Science), Volume 2, pp. 265-327, 2002.

Dohanich, G. P. Ovarian steroids and cognitive function. Current Directions in Psychological Science 12:57-61, 2003.

Luine, V. N. and G. P. Dohanich. Sex differences in cognitive function in rodents. In Sex on the Brain: From Genes to Behavior, edited by J. Becker et al., Oxford University Press, in press.

COURSES TAUGHT AT TULANE UNIVERSITY

PSYC 337 (Motivation and Behavior)	Fall 1985,1986
PSYC 100 (Introductory Psychology)	Spring 1986,1987
PSYC 347 (Brain and Behavior)	Fall 1987,1988,1989,1990,1991,1994 2002 Spring 1993, 1995, 1998, 2000
PSYC 628 (Psychobiology)	Fall 1985,1986,1989,1990,1991 Spring 1994,1995,1996,1997
PSYC 630/631 (Psychobiology)	Spring 1998
PSYC 629 (Psychopharmacology)	Spring 1985,1986,1987,1988,1990,1991,1992 Fall 1993,1994,1995,1996,1997,1998
PSYC/NSCI 653/654 (Psychopharmacology)	Fall 1999,2000,2001,2002,2003,2004,2006 Spring 2006
PSYC/NSCI 655/656 (Behavioral Neuroendo.)	Spring 2000 2001,2002,2003,2004,2005,2006
PSYC 710 (Grad. Psychopharmacology)	Spring 1991,1992,2006 Fall 1993,1995,1997,1998,1999,2001,2003
PSYC/NSCI 723 (Professional Issues)	Fall 2006
NSCI 680 (Methods in Neuroscience)	Fall 2004
NSCI 600/601 (Methods in Neuroscience)	Spring 2005