

Curriculum Vitae

David Wirtshafter

Business Address

The University of Illinois at Chicago
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Employment

1981-1982 -Visiting Instructor, University of Illinois at Chicago
 1982-1987 -Assistant Professor, University of Illinois at Chicago
 1987- 1998 -Associate Professor, University of Illinois at Chicago
 1998- -Professor, University of Illinois at Chicago

Education

B.A. University of Illinois at Chicago, 1974
 M.A. University of Illinois at Chicago, 1979
 Ph.D. University of Illinois at Chicago, 1982

Theses

M.A. Thesis: Role of interpedunculotegmental connections in activity and avoidance.
 Doctoral Dissertation: Behavioral effects of habenular lesions.

Honors

University of Illinois Scholar, 1986
 Nominated for Silver Circle Award for Teaching, 1983, 1984, 1985, 1986, 1998
 Silver Circle Award for Teaching, 1987, 1990, 1994, 2011.
 Teaching Recognition Program Award, 1997, 2004
 Excellence in Teaching Award, 2002

Courses Taught

Introduction to Psychology
 Physiological Psychology
 Advanced Physiological Psychology
 Laboratory in Physiological Psychology
 Learning
 Laboratory in Learning
 Advanced Learning
 Statistics
 Fundamentals of Neuroscience
 Basic Brain Function
 Motivation
 Neuroscience II
 Neural Basis of Motivation
 Perception
 Advanced History of Psychology
 Clinical Psychopharmacology
 Neuroscience
 Neuroanatomy
 Neural Substrates of Consciousness

Professional Service**Reviewer for:**

American Journal of Physiology
 Behavioral Brain Research
 Behavioral Neuroscience
 BMC Neuroscience
 Brain Research
 Brain Research Reviews
 Brain Research Bulletin
 British Journal of Pharmacology
 European Journal of Neuroscience
 European Journal of Nutrition
 European Journal of Pharmacology
 Frontiers in Systems Neuroscience
 Journal of Autonomic Neuroscience
 Journal of Neurochemistry
 Journal of Neuroscience
 Journal of Pharmacology and Experimental Therapeutics
 Neurochemistry International
 Neuroscience
 Neuroscience and Biobehavioral Reviews
 Neuroscience Letters
 Neuropharmacology
 Neuropsychopharmacology
 Nutritional Neuroscience
 Physiology and Behavior

Pharmacology, Biochemistry and Behavior
PLOS ONE
Psychopharmacology
Schizophrenia Research
Trends in Neurosciences

Consultant for:

Abbott Laboratories (Abbott Park, IL)
Natural Product Sciences (Salt Lake City, UT)
Allelix Neuroscience (South Plainfield, NJ)
Zeneca Pharmaceuticals (Wilmington, DE)
Upsher-Smith Laboratories (Maple Grove, MN)

Publications

Davis, J.D. & D. Wirtshafter. The control of body weight by glycerol. *The Physiologist*. 20: 214, 1977.

Wirtshafter, D. & J.D. Davis. Set points, settling points, and the control of body weight. *Physiol. Behav.*, 19: 75-78, 1977.

Wirtshafter, D. & J.D. Davis. Body weight: Reduction by long term glycerol treatment. *Science*, 198: 1271-1274, 1977.

Wirtshafter, D., K.E. Asin & E.W. Kent. Nucleus accumbens lesions reduce amphetamine hyperthermia but not hyperactivity. *Eur. J. Pharmacol.* 51, 449-452, 1978.

Davis, J.D. & Wirtshafter, D. Set points or settling points for body weight? A reply to Mrosovsky and Powley. *Behav. Biol.*, 24: 405-411, 1978.

Asin, K.E., D. Wirtshafter & E.W. Kent. Impaired patterned responding in rats with electrolytic median raphe lesions. *Physiol. Behav.* 23, 803-806, 1979.

Asin, K.E., D. Wirtshafter & E.W. Kent. Straight alley acquisition and extinction and open field activity following discrete electrolytic lesions of the mesencephalic raphe nuclei. *Behav. Neural Biol.* 25, 242-256, 1979.

Wirtshafter, D., K.E. Asin & E.W. Kent. Simple technique for midline stereotaxic surgery in the rat. *Physiol. Behavior*. 23, 409-410, 1979.

Asin, K.E., D. Wirtshafter & E.W. Kent. The effects of electrolytic median raphe lesions on two measures of latent inhibition. *Behav. Neural Biol.* 28, 408-417, 1980.

Davis, J.D., D. Wirtshafter, K.E. Asin & D. Brief. Sustained intracerebroventricular infusion of brain fuels reduces body weight and food intake in rats. *Science* 212, 81-83, 1981.

Wirtshafter, D. Role of interpeduncular connections with the tegmentum in avoidance learning. *Physiol. Behav.*, 26: 985-989, 1981.

Wirtshafter, D. & K.E. Asin. Shock induced suppression of drinking following electrolytic median raphe lesions. *Physiol. Psychol.* 9, 263-268, 1981.

Asin, K.E. & D. Wirtshafter. Ingestive behaviors of rats with electrolytic median raphe lesions maintained on a food deprivation schedule. *Physiol. Behav.* 28, 89-93, 1982.

Wirtshafter, D. & K.E. Asin. A comment on the practice of expressing food and water intakes relative to body weight. *Physiol. Behav.* 28, 183-185, 1982.

Rosen, A.J., D. Wirtshafter, G.N. Pandey & J.M. Davis. Platelet monoamine oxidase activity and behavioral response to pharmacotherapy in psychiatric patients. *Psychiat. Res.* 6, 49-59, 1982.

Wirtshafter, D. & K.E. Asin. Evidence that electrolytic median raphe lesions increase locomotion but not exploration. *Physiol. Behav.* 28, 749-754, 1982.

Asin, K.E., D. Wirtshafter & H.C. Fibiger. Alterations in drug induced catalepsy and post-decapitation convulsions following brain and spinal cord depletion of norepinephrine by the neurotoxin DSP4. *Life Sci.* 30, 1531-1536, 1982.

Wirtshafter, D. & K.E. Asin. Impaired acquisition and performance of an 8-arm radial maze task following electrolytic lesions of the median nucleus of the raphe. *Exper. Neurol.* 79, 412-421, 1983.

Asin, K.E., D. Wirtshafter & B. Tabakoff. Failure to establish conditioned place preference with ethanol in rats. *Pharmacol. Biochem. Behav.* 22, 169-173, 1985.

Asin, K.E., D. Wirtshafter & B. Tabakoff. Pentobarbital-induced drinking does not rely on a renal dipsogen, *Physiol. Behav.* 34, 151-153, 1985.

Wirtshafter, D. & K.E. Asin. Haloperidol and nonreinforcement produce different patterns of response slowing in a food reinforced runway task. *Pharmacol. Biochem. Behav.*, 22, 661-663, 1985.

Asin, K.E., D. Wirtshafter & H.C. Fibiger. Electrolytic, but not 5,7-dihydroxytryptamine, lesions of the nucleus medianus raphe impair acquisition of a radial maze task. *Behav. Neural Biol.*, 44, 415-424, 1985.

Asin, K.E. & D. Wirtshafter. Clonidine produces a conditioned place preference in rats. *Psychopharmacol.*, 85, 383-385, 1985.

Wirtshafter, D., K.E. Asin & S.A. Lorens. Serotonin-immunoreactive projections to the hippocampus from the interpeduncular nucleus in the rat. *Neurosci. Lett.*, 64: 259-262, 1986.

Wirtshafter, D. & K.E. Asin. Discrimination learning and reversal following electrolytic lesions of the median raphe nucleus. *Physiol. Behav.*, 37, 213-219, 1986.

Wirtshafter, D. & K.E. Asin. Serotonin and behavioral inhibition: Running the rat race without any brakes? *Behav. Brain Sci.*, 9, 347-348, 1986.

Wirtshafter, D., Montana, W. & Asin, K.E. Behavioral and biochemical studies of the origin of the hyperactivity produced by median raphe lesions. *Physiol. Behav.*, 38, 751-759 1986.

Wirtshafter, D., Klitenick, M. & Asin, K.E. Evidence against serotonergic involvement in the hyperactivity produced by injections of muscimol into the median raphe nucleus. *Pharmacol., Biochem. Behav.*, 27, 45-52, 1987.

Wirtshafter, D., Stratford, T. & Asin, K.E. Evidence that serotonergic projections to the substantia nigra in the rat arise in the dorsal, but not the median, raphe nucleus. *Neuroscience Lett.*, 77, 261-266, 1987.

Wirtshafter, D. & McWilliams, C. Acute injections of kainic acid into the median raphe nucleus produce a suppression of locomotor activity. *Brain Research*, 408, 349-352, 1987.

Klitenick, M.A. & Wirtshafter, D. Comparative studies of the ingestive behaviors produced by injections of muscimol into the ventral tegmental area and the dorsal and median raphe nuclei. *Life Sci.*, 42, 775-782, 1988.

Wirtshafter, D., Klitenick, M. & Asin, K.E. Is dopamine involved in the hyperactivity produced by injections of muscimol into the median raphe nucleus. *Pharmacol. Biochem. Behav.* 30, 577-583, 1988.

Wirtshafter, D. & Trifunovic, R. Elicitation of ingestive behavior by injections of excitatory amino acid antagonists into the median raphe nucleus. *Pharmacol. Biochem. Behav.*, 30, 529-533, 1988.

Stratford, T.R. & Wirtshafter, D. Evidence for a projection from the B9 serotonergic cell group to the median raphe nucleus. *Brain Res. Bull.*, 21, 3325-328, 1988.

Wirtshafter, D., Trifunovic, R & Krebs, J.C. Behavioral and biochemical evidence for a functional role of excitatory amino acids in the median raphe nucleus. *Brain Res.*, 482, 225-234, 1989.

Wirtshafter, D. & Klitenick, M.A. Comparative studies of locomotor activity following injections of muscimol into various sites in the median tegmentum. *Pharmacol. Biochem. Behav.*, 32, 625-628, 1989.

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Stratford, T.R. & Wirtshafter, D. Ascending dopaminergic projections from the dorsal raphe nucleus in the rat. *Brain Res.*, 511, 173-176, 1990.

Wirtshafter, D. & Krebs, J.C. Control of food and water intake by kainate/quisqualate receptors within the median raphe nucleus. *Psychopharmacol.*, 101, 142-145, 1990.

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Shim, I. & Wirtshafter, D. Fos-like immunoreactivity in the mamillary body and thalamus following injections of muscimol into the ventral tegmental nucleus of Gudden. *Brain Res.*, 712:173-178, 1995.

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Shim, I., Javaid, J., Wirtshafter, D., Djang, S.Y., Shin, K.H., Lee, H.J., Chung, Y.C. & Chun, B.G. Behavioral sensitization to nicotine is associated with extracellular dopamine release and expression of c-Fos in the striatum and nucleus accumbens of the rat. *Behav. Brain Res.* 121: 137-147, 2001.

Wirtshafter, D. & Asin, K.E. Comparative effects of scopolamine and quinpirole on the striatal Fos expression induced by stimulation of D1 dopamine receptors in the rat. *Brain Res.*, 893: 202-214, 2001.

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Wirtshafter, D. & Sheppard, A. Role of dopamine D(2) receptors in the striatal immediate early gene response to amphetamine in reserpinized rats. *Brain Res Bull.* 62: 77-83 2003.

Wirtshafter, D. & Asin, K.E. Effects of Haloperidol and Clozapine on Fos Expression in the Primate Striatum. *NeuroReport*, 14: 2429-2432 (2003).

Wirtshafter, D. Cholinergic-dopaminergic interactions and striatal Fos expression in the rat. *Eur. J. Pharmacol.*, 488: 85-90, 2004.

Gao, L., Barber-Singh, J., Kottegoda, S., Wirtshafter, D. & Shippey, S.A. Determination of nitrate and nitrite in rat brain perfusates by capillary electrophoresis. *Electrophoresis*, 25: 1264-1269, 2004

Wirtshafter, D. & Osborn, C.V. The distribution of m4 acetylcholine receptors in the islands of Calleja and striatum of rats and Cynomolgus monkeys. *J. Chem. Neuroanat.* 28: 107-116, 2004.

Stratford, T.R. & Wirtshafter, D. NPY mediates the feeding elicited by muscimol injections into the nucleus accumbens shell. *NeuroReport*, 15:959-965, 2004.

Wirtshafter, D. Form and function in the brain and spinal cord. (Book Review) *J. Chem. Neuroanat.*, 29: 296-297 (2005).

Wirtshafter, D. Cholinergic involvement in behaviorally-induced Fos expression in the cortex and hippocampus of the rat. *Brain Res.*, 1051:57-65, 2005.

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- Wirtshafter, D. The selective m1 muscarinic antagonist MT-7 blocks pilocarpine induced striatal Fos expression. *Brain Res.*, 1085:127-131 (2006).
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- Wirtshafter, D. Rotation and Fos expression following treatment with the atypical D1 dopamine agonist SKF 83822. *Pharmacol., Biochem. Behav.* 86: 505-510, 2007.
- Thongkhao-on, K., Wirtshafter, D., & Shippy, S. Low-flow push-pull perfusion of rat lateral hypothalamus reveals a feeding specific glutamate surge. *Pharmacol., Biochem. Behav.* 89:591-597, 2008.
- LaVinka, P.C., Brand, A., Landau, V.J., Wirtshafter, D. & Park, T.J. Extreme tolerance to ammonia fumes in African naked mole-rats: animals that naturally lack neuropeptides from trigeminal chemosensory nerve fibers. *J. Comp. Physiol. A. Neuroethol Sens Neural Behav Physiol.* 195:419-427 (2009)
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- Stratford, T.R. & Wirtshafter, D. Opposite effects on the ingestion of ethanol and sucrose solutions after injections of muscimol into the nucleus accumbens shell. *Behavioral Brain Res.*, 216: 514-518 (2011).
- Wirtshafter, D, Davis, J.D. & Stratford, T.R. Inactivation of the Median Raphe Nucleus Increases Intake of Sucrose Solutions: A Microstructural Analysis. *Behavioral Neuroscience.* 125:529-540, 2011. (2011).
- Stratford, T.R. & Wirtshafter, D. Evidence that the nucleus accumbens shell, ventral pallidum, and lateral hypothalamus are components of a lateralized feeding circuit. *Behav. Brain Res.* 226: 548-554 (2011).
- Covelo, I.R., Stratford, T.R. & Wirtshafter, D. Influence of the nucleus accumbens shell on a water reinforced progressive ratio task. *Pharmacol. Biochem. Behav.* (2012).
- Jones-Cage, C., Stratford, T.R. & Wirtshafter, D. Differential Effects of the Adenosine A_{2A} agonist CGS-21680 and Haloperidol on Fixed Ratio Responding in the Rat. *Psychopharmacol.*, 220: 205-213(2012). DOI 10.1007/s00213-011-2467-1

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- Choi WK, Wirtshafter D, Park HJ, Lee MS, Her S & Shim I. The characteristics of supramammillary cells projecting to the hippocampus in stress response in the rat. *Korean J Physiol Pharmacol.* 16:17-24 (2012).
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- Shim, I.S., Stratford, T.R. & Wirtshafter, D. Dopamine is differentially involved in the locomotor hyperactivity produced by manipulations of opioid GABA and glutamate receptors in the median raphe nucleus. *Behav. Brain. Res.* 261: 65-70 (2014). doi: 10.1016/j.bbr.2013.12.004
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Papers Presented (References to Abstracts Where Possible)

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- Davis, R.E., D. Wirtshafter, K.E. Asin & E.W. Kent. GABA blockade: The effects of picrotoxin on bidirectional active avoidance, locomotor activity and straight alley performance. *Soc. Neurosci. Abstr.* 4, 489, 1978.
- Wirtshafter, D., K.E. Asin & E.W. Kent. Role of the tectospinal tract in apomorphine-induced rotation. *Soc. Neurosci. Abstr.* 4, 287, 1978.
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- Davis, J.D., D. Wirtshafter, K.E. Asin & D. Brief. Body weight and food intake control by intraventricular infusion of metabolically utilizable fuels. *Int. Conf. Physiol. Food & Fluid Intake, Warsaw, Poland, 1980.*

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