
Curriculum Vita
Susan Barron

Current Address:

Department of Psychology
Kastle Hall
University of Kentucky
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Education:

State University of New York at Albany	Ph.D. Experimental Psychology	1987
State University of New York at Albany	B.S. Biology/Chemistry	1981

Employment:

University of Kentucky Department of Psychology	Associate Professor Behavioral Neuroscience and Psychopharmacology Coordinator	1997 -
University of Kentucky Department of Psychology	Assistant Professor	1991-1997
San Diego State University Psychology Department	Adjunct Assistant Professor	1989-1991
San Diego State University Psychology Department	Postdoctoral Research Fellow	1988-1989
State University of New York at Albany Psychology Department	Postdoctoral Research Fellow	1987-1988

Additional University Affiliations

Center for Drug and Alcohol Research
Center for the Advancement of Women's Health

Teaching Experience:*Undergraduate Level Courses Taught*

Evolutionary Psychology
 Introductory Psychology
 Behavioral Neuroscience, Brain and Behavior
 Drugs and Behavior
 Behavioral Endocrinology
 Developmental Psychobiology
 Clinical Psychopharmacology

Graduate Level Courses Taught

Clinical Psychopharmacology
 Proseminar in Physiological Psychology
 Topical Seminar in Neurotoxicology
 Hormones and Behavior
 Directed Readings in Neuroscience

Federal or State Government Appointed Committees

Ad hoc reviewer, NIH, AA-1, 2007
 Ad hoc reviewer, NIH, Neurogenesis and Cell Fate Study (NCF) Subcommittee, 2006
 Ad hoc reviewer, NIH, Developmental Brain Disorders Subcommittee (DBD), 2004.
 2005

Elected Offices Held and Research Related Committee Work (outside University)

KY Substance Exposed Infants Work Group, 2009
 Henry Rosett Award Committee, Fetal Alcohol Spectrum Disorders Study Group, 2008
 Board of Directors, Research Society on Alcoholism, 2007-2011.
 Kentucky Fetal Alcohol Spectrum Disorder Task Force, 2008 - present
 Public Awareness and Website Development Committee, Fetal Alcohol Spectrum Disorders Study Group, 2008 - present
 Co-Chair, Government Affairs and Advocacy Committee, Research Society on Alcoholism, 2009-2010
 Government Affairs and Advocacy Committee, Research Society on Alcoholism, 2008-2009
 Co-Chair, 2008, Research Society on Alcoholism Educational Lecture Series
 Co-Chair, 2006, Research Society on Alcoholism Educational Lecture Series
 National Advocacy and Publication Education Committee, Research Society on Alcoholism, 2005-present
 Education Committee, Research Society on Alcoholism, 2005-2008
 Secretary, Research Society on Alcoholism, 2003 – 2005
 Executive Committee, Research Society on Alcoholism, 2003-2005
 President, Fetal Alcohol Syndrome Study Group, 2002-2003
 Vice President, Fetal Alcohol Syndrome Study Group, 2001-2002

Secretary/Treasurer, Fetal Alcohol Syndrome Study Group, 2000-2001
 ILSI Risk Science Institute: Direct Dosing of Neonatal Animals in Toxicity Studies Workgroup, 2000-2003
 Chairperson, Research Society on Alcoholism Membership Committee, 1997-2001.
 Chairperson, Student Travel Award Committee, Women in Neuroscience, 1999.
 Substance Abuse and Pregnancy Work Group - Governor-appointed work group through the Cabinet for Human Resources, Commonwealth of Kentucky, 1992-1998.
 "Tobacco Team" - member of committee implementing grass roots efforts related to addressing local issues related to smoking and health under auspice of American Cancer Society, 1995 - 1997
 Organizing Member for San Diego Toxicology Society, 1990

Elected Offices held - University of KY:

UK Society for Neuroscience - Activities Coordinator, 1995-1997,
 President-elect, 2000
 President, 2001

UK Committee Assignments: -

Ad hoc Committee for Evaluation of Esirius, VP Research Office, 2008-2009
 Rhodes and Marshall Selection Committee, 2008-2010
 Committee for Postdoctoral Fellowship for Women in Under-Represented Areas- 2003-present
 Advisory Committee for Girls in Science and Girls in Research Programs, 2003-2004
 Medical Center Animal Costs Task Force Committee, 2000
 Selection Committee - Young Women in Science Program - 1999, 2000
 Reviewer - Research Committee Grants - 1999
 Institution Animal Care and Use Committee - 1998, 1999, 2001-2004
 New Horizons Scholarship Committee - 1995-1997
 Major Equipment Award Committee - 1994
 Study Abroad Advisory Committee - 1992-1999

College of Arts and Sciences Committees:

Committee of Women Faculty, 2009
 Election Committee, 2008, 2009

Psychology Department Committees:

Faculty Search Committee Endowed Chair w/ Women's Center on Violence, 2006
 Departmental Newsletter Coordinator, 2005, 2006
 BNP Area Coordinator, 1999-present
 Admissions and Awards Committee, 2002-2006
 Faculty Search Committee, 2002, 2003

Faculty Search Committee, 2000
 Ad Hoc Space Committee, 1998
 Research Challenge Initiative RA Award Committee, 1998
 Biological Bases of Behavior Course Proposal Committee, Chair
 1995-1996
 Computing Advisory Committee, 1995, 1996, 1997
 Speaker Series, 1995-1996
 UK Department of Psychology- Colloquium Committee, 1992-1993; 1994-1996
 Special Awards and Teaching Committee, 1993-1994
 Diversity Initiatives, 1994

KY Regional Service

Judge, Social and Behavioral Sciences Area, KY INTEL ISEF Fair, Richmond,
 2005
 Providence Montessori, presentation to 1st- 5th graders on CNS and brain function,
 2005, 2008
 Kentucky Young Scientist Summer Research Program (KYSS) Departmental
 Coordinator, 2000-2003.
 Posters at the Capital, February 2002, 2003, 2005, 2008 Undergraduate Student Poster
 Presentations for the Governor and Legislature.
 Chair of Judges, Social and Behavioral Sciences Area, KY INTEL ISEF Fair, Richmond,
 2003
 Co-Chair of Judges, Social and Behavioral Sciences Area, International INTEL ISEF
 Fair, Louisville, 2002
 Mentor, Girls in Science, NSF funded grant operated through Women's Institute on
 Alcohol and Drug Studies, 2003.
 Maxwell Elementary School, presentation to 2nd graders on CNS and brain function,
 2000 – 2003
 Moderator, National Conference on Undergraduate Research, 2001, University of
 Kentucky.
 Mentor, Young Women in Science, NIDA funded grant operated through Women's
 Institute on Alcohol and Drug Studies, 2000-2002.

Regional Service via Presentations:

Barron, S. Consequences of Prenatal Alcohol Exposure. Center for the Advancement
 of Women's Health Grand Rounds, University of Kentucky, 2008.
 Barron, S., Webinar Presentation for Kentucky Psychological Association. Alcoholism
 and the Brain (CE presentation), July 2009.
 Barron, S. Fetal Alcohol Syndrome - Presented at the 14th Annual Conference of
 Nurse Practitioners and Midwives. Lexington, KY. 2001.

Barron, S. Prenatal Effects on Early Brain Development. Presented at the 1999 42nd Annual Maternal and Child Health Conference, 1999.

Barron, S. What Do We Know About the Effects of Prenatal Drug Exposure Presented at the 7th Annual Kentucky Infant/Toddler Conference, 1999.

Barron, S. Women and Substance Abuse, Whats in the Research? Kentucky School for Alcohol and Drug Studies, Northern Kentucky University, Summer 1993, Co-organizer and Speaker.

Current Memberships and Affiliations

Fetal Alcohol Spectrum Disorders Study Group
 International Society for Biomedical Research on Alcoholism
 International Society for Developmental Psychobiology
 Neurobehavioral Teratology Society
 Research Society on Alcoholism
 Society for Neuroscience

Editorial Advisory Boards:

Neurotoxicology and Teratology - appointed 1998- 2004
 Pharmacology, Biochemistry and Behavior- 2004 - present

Ad Hoc Journal Reviewer

Alcohol
 Alcoholism: Clinical Experimental Research, 2009
 Animal Learning and Behavior
 Behavioural Brain Research, 2009
 Behavioral Neuroscience
 Biological Psychiatry
 Brain Research
 Developmental Psychobiology
 Infant Behavior and Development
 International Journal of Developmental Neurosciences
 Life Sciences
 Journal of Applied Physiology
 Molecular Neurobiology, 2009
 Neurobehavioral Toxicology and Teratology
 Neuropharmacology
 Pediatric Research, 2009
 Physiology and Behavior
 Psychopharmacology, 2009
 Psychoneuroendocrinology

Extramural Grants

Currently Funded:

AA017956 (R21) 09/05/2009-8/31/2011.

In vitro and In vivo models for ethanol withdrawal and antepartum hypoxia.

National Institute of on Alcohol Abuse and Alcoholism. **Total Direct Cost:** \$275,000. Role: Principal Investigator.

DA019526 (R21) 04/01/07 – 3/31/09.

Prenatal Cocaine Effects on Sexual Motivation. National Institute on Drug Abuse. **Total Direct Cost:** \$300,000. Role: Co-Investigator. (Chana Akins).

DA 07304 (T32) 8/1/98-7/30/08

Research training in drug abuse behavior. National Institute on Drug Abuse.

Total Direct Cost: \$789,866. **Role:** Training Faculty (T. Garrity)

Hypericum extracts as potential anti-relapse agents (John Littleton)

Fast track STTR to NIAAA.

Phase 1 direct costs ~\$125,000/year for 2 years. Role: Subcontract 5%/year.

Phase 2 direct costs ~\$200,000/year for 2 years. Role: Subcontract 10%/year.

1235412320 – 01/01/07-12/30/09.

Preclinical studies to support the use of lobeline as a treatment for attention deficit hyperactivity disorder in children with Fetal Alcohol Syndrome. Kentucky Tobacco Research and Development Center. **Total Direct Cost:** \$120,000. Role: Co-investigator. (Linda Dwoskin).

Recently Funded:

AA 013561 (RO1). 2/10/04 - 1/31/09.

Ethanol withdrawal and HIV-1 neurotoxicity. National Institute on Alcohol Abuse and Alcoholism. Total Direct Cost: \$875,000. Role: Co-Investigator. (Mark Prendergast)

DA 021199 (R21) 9/25/06-9/24/08

Prenatal nicotine, behavioral teratogenicity and dopamine. **Total Direct Costs:** \$300,000. **Role:** Co-investigator (2%). (Jim Pauly)

Center for Drug Abuse Research Translation Mini-Pilot Project Program 9/30/07 – 12/1/08. *Neonatal Drug Insult and Environmental Enrichment: Effects on Adolescent Drinking.* **Total Direct Costs:** \$20,000. **Role:** Principal Investigator

AA 12600 (RO1) 8/01/04 – 07/30/08

Development of screens for drugs in alcohol dependence. National Institute on Alcohol Abuse and Alcoholism. **Total Direct Cost:** \$1,900,374. **Role:** Co-Investigator. (John Littleton)

R25AA017602 October 2007;

Research Society on Alcoholism Lecture Series. Role: Co-Investigator.

AA 014032 (R21) 6/01/03 – 5/31/07.

Polyamines in neonatal alcohol neurotoxicity. National Institute on Alcohol Abuse and Alcoholism. **Total Direct Cost:** 300,000. **Role:** Principal Investigator.

AA 09723 5/1/96 - 4/30/99

Neonatal ethanol exposure and drug interactions. National Institute of Alcohol Abuse and Alcoholism. **Total Direct Cost:** \$262,437. **Role:** Principal Investigator.

AA 05521 (T32) 1999-2000

The Effects of Neonatal Exposure to Alcohol and/or cocaine on cognitive functioning in rodents. National Institute of Alcohol Abuse and Alcoholism. **Role:** Supervisor/Mentor (J. Willford).

DA 06049 (R29) 3/1/90 - 2/28/95.

Third Trimester Model of Prenatal Cocaine Exposure. National Institute of Drug Abuse. **Total Direct Costs:** \$349,972. **Role:** Principal Investigator.

Kentucky Spinal Cord and Head Injury Trust - Chronic ethanol in traumatic brain injury - **Total Direct Costs:** \$295,059. **Role:** Co-Investigator. (Renuka Prasad)

BRSG S07 RR07114-23 1992

The Effects of Third Trimester Cocaine Exposure on the Central Nervous System National Institute of Drug Abuse **Total Direct Costs:** \$4300 **Role:** Principal Investigator.

AA 6902 1989-1991

Behavioral Effects of Neonatal Alcohol Exposure National Institute of Alcohol Abuse and Alcoholism. **Total Direct Costs:** **Role:** Co-Investigator. (Edward Riley)

AA Postdoctoral Training Grant 1987-1989

Neonatal Alcohol Exposure - Sexually Dimorphic Effects Neonatal Alcohol Exposure - Sexually Dimorphic Effects. National Institute of Alcohol Abuse and

Alcoholism. **Role: Postdoctoral Fellow.** (Edward Riley, Sponsor).

Publications: (*denotes graduate student or postdoctoral fellow)

1. Riley, E.P., **Barron, S.**, Driscoll, C.D., and Chen, J.S. (1984) Taste aversion learning in preweanling rats exposed to alcohol prenatally. *Teratology*, 29:325-332.
2. **Barron, S.**, and Riley, E.P. (1985) Pup-induced maternal behavior in adult and juvenile rats exposed to alcohol prenatally. *Alcoholism: Clinical and Experimental Research*, 9:360-365.
3. Riley, E.P., **Barron, S.**, Driscoll, C.D., Hamlin, R.T. (1986) The effects of physostigmine on open-field behavior in rats exposed to alcohol prenatally. *Alcoholism: Clinical and Experimental Research*, 10:50-53.
4. **Barron, S.**, Riley, E.P., and Smotherman, W.P. (1986) The effects of prenatal alcohol exposure on umbilical cord length in fetal rats. *Alcoholism: Clinical and Experimental Research*, 10:493-495.
5. Smotherman, W.P., Woodruff, K.S., Robinson, S.R., del Real, C., **Barron, S.**, and Riley, E.P. (1986) Spontaneous fetal behavior after maternal exposure to ethanol. *Pharmacology, Biochemistry, and Behavior*, 24:165-170.
6. **Barron, S.**, Jaccard, J., and Riley, E.P. (1986) Methods for testing hypotheses across studies: Applications for teratologists and toxicologists. *Teratology*, 34:113-118.
7. Riley, E.P., **Barron, S.**, and Hannigan, J.H. (1986) Response inhibition deficits following prenatal alcohol exposure: A comparison to the effects of hippocampal lesions in rats. In: *Alcohol and Brain Development*, J. West (ed). pp. 71-104.
8. **Barron, S.**, Zimmerberg, B., Rockwood, G.A., and Riley, E.P. (1987) Prenatal alcohol exposure: Recent work on behavioral dysfunctions in preweanling rats. *Advances in Alcohol and Substance Abuse*, 6:59-72.
9. **Barron, S.**, Tieman, S.B., and Riley, E.P. (1988) The effects of prenatal alcohol exposure on the sexually dimorphic nucleus of the preoptic area of the hypothalamus in male and female rats. *Alcoholism: Clinical and Experimental Research*, 12:59-64.
10. **Barron, S.**, Gagnon, W., Mattson, S.M., Kotch, L.E., Meyer, L.S.*and Riley, E.P. (1988) The effects of prenatal alcohol exposure on odor associative learning in rats. *Neurotoxicology and Teratology*, 10:333-339.

11. Riley, E.P. and **Barron, S.** (1989) The behavioral and neuroanatomical effects of prenatal alcohol exposure in animals. *Prenatal Abuse of Licit and Illicit Drugs. Annals of New York Academy of Sciences*, 562:173-177.
12. **Barron, S.** and Riley, E.P. (1990) Passive avoidance performance following neonatal alcohol exposure. *Neurotoxicology and Teratology*, 12:135-138.
13. McGivern, R.F., **Barron, S.** (1991) Influence of prenatal alcohol exposure on the process of neurobehavioral sexual differentiation. *Alcohol Health and Research World* 15:115-125.
14. **Barron, S.**, Kelly, S.J. and Riley, E.P. (1991) Neonatal alcohol exposure alters suckling performance in rat pups. *Pharmacology, Biochemistry and Behavior* 39: 423-427.
15. **Barron, S.**, Foss, J.A. and Riley, E.P. (1991) The effect of prenatal cocaine exposure on umbilical cord length in fetal rats. *Neurotoxicology and Teratology*, 13:503-506.
16. **Barron, S.**, and Riley, E.P. (1992) The effects of prenatal alcohol exposure on behavioral and neuroanatomical components of olfaction. *Neurotoxicology and Teratology*, 14:291-297.
17. Riley, E.P., **Barron, S.**, Melcer, T., Gonzalez, D., Li, T.K. (1993) Alterations in activity following alcohol administration during the third trimester equivalent in P and NP rats. *Alcoholism: Clinical and Experimental Research*, 17:1240-1246.
18. Melcer, T., Gonzalez, D., **Barron, S.**, Riley, E.P. (1993) Hyperactivity in preweanling rats following postnatal alcohol exposure. *Alcohol* 11:41-45.
19. **Barron, S.**, and Irvine, J.* (1994) The effects of neonatal cocaine exposure on two measures of balance and coordination. *Neurotoxicology and Teratology* 16:89-94.
20. **Barron, S.**, Kaiser, D.H.*, Hansen, L.S.* (1994) Neonatal cocaine exposure, activity and responsivity to cocaine in a rodent model. *Neurotoxicology and Teratology* 16:401-409.
21. **Barron, S.**, Irvine, J.* (1995) Behavioral effects of neonatal cocaine exposure using a rodent model. *Pharmacology, Biochemistry and Behavior* 50:107-114.
22. **Barron, S.**, Razani, L.J.*, Gallegos, R.A.*, Riley, E.P. (1995) The effects of neonatal alcohol exposure on saccharin consumption. *Alcoholism: Clinical and Experimental Research* 19:257-261.

23. Belcheva, M.M., **Barron, S.**, Ho, M.T., Barg, J., Coscia, C.J. (1995) Cross-linking studies on buprenorphine-exposed neonatal rat brain. *Analgesia* 1:290-293.
24. **Barron, S.**, Hansen, L.S.*, Kaiser, D.H.* (1996) Neonatal cocaine exposure and activity rhythms in rats. *Behavioural Brain Research* 74:167-174.
25. **Barron, S.**, Hansen-Trench, L.S.*, Kaiser, D.H. *and Segar, T.* (1996) Problem solving following neonatal exposure to cocaine, ethanol or cocaine/ethanol in combination in rats. *Pharmacology, Biochemistry and Behavior* 53:197-203.
26. Hansen-Trench, L.S.*, Segar, T.M.*, and **Barron, S.** (1996) Neonatal cocaine and/or ethanol exposure: Effects on a runway task with suckling reward. *Neurotoxicology and Teratology* 18: 651-657.
27. **Barron, S.** and Chung, V.M.* (1997) The effects of prenatal buprenorphine exposure on sexual differentiation in rats. *Pharmacology, Biochemistry and Behavior. Pharmacology, Biochemistry and Behavior*, 58:337-343.
28. Prasad R.M., Laabich A., Dhillon, H.S., Zhang L., Maki A., Clerici W.J., Hicks R., Butcher J. and **Barron, S.** (1997) Effects of six weeks of chronic ethanol administration on lactic acid accumulation and high energy phosphate levels after experimental brain injury in rats. *J Neurotrauma* 14:919-930.
29. **Barron, S.**, Staton, C.M.*, and Trench, L.H.* (1998) The effects of clonidine on rat pups neonatally exposed to cocaine. *Neurotoxicology and Teratology* 20:401-409.
30. Belcheva, M.M.*, Bohn, L.M., Ho, M.T., Johnson, F.E., Yanai, J., **Barron, S.**, and Coscia, C.J. (1998) Brain opioid receptor adaptation and expression after prenatal exposure to buprenorphine. *Developmental Brain Research* 111:35-42..
31. Willford, J.A.*, Segar, T.M.*, Hansen-Trench, L.S.*, and **Barron, S.** (1999) The effects of neonatal cocaine exposure on a play-rewarded spatial discrimination task in juvenile rats. *Pharmacology, Biochemistry and Behavior* 62:137-143.
32. Segar, T.M.*, Klebauer, J.E.*, Bardo, M.T. and **Barron, S.** (1999) Acquisition of a fixed ratio schedule in adult male rats neonatally exposed to ethanol and/or cocaine. *Alcoholism: Clinical and Experimental Research* 23:7-11.
33. Zhang, L., Maki, A., Dhillon, H.S., **Barron, S.**, Clerici, W.J., Hicks, R., Kraemer, P.J., Butcher, J., Prasad, R.M. (1999) Effects of six weeks of chronic ethanol administration on the behavioral outcome of rats after lateral fluid percussion brain injury. *J Neurotrauma*. 16:243-254.
34. Willford, J.A.*, Segar, T.M.*, and **Barron, S.** (1999) The behavioral response to

novelty is altered in rats neonatally exposed to cocaine. *Developmental Psychobiology* 1999 35(4):343-351.

35. Zhang L., Dhillon, H.S., **Barron, S.**, Hicks, R.R., Prasad, R.M., Seroogy, K.B. (2000) Effects of chronic ethanol administration on expression of BDNF and trkB mRNAs in rat hippocampus after experimental brain injury. *Molecular Brain Research*. 79:174-179.

36. **Barron S.**, Segar T.M.*, Yahr J.S.*, Baseheart B.J., Willford J.A.* (2000) . The effects of neonatal ethanol and/or cocaine exposure on isolation-induced ultrasonic vocalizations. *Pharmacology, Biochemistry and Behavior*, 67:1-9.

37. **Barron S.**, Baseheart B.J., Segar T.M.*, Deveraux T.*, Willford J.A.* (2000) The behavioral teratogenic potential of fenbendazole. *Neurotoxicology and Teratology*, 22:871-877.

38. Masse J.*, Billings, B., Dhillon, H.S., Mace, D., Hicks, R., **Barron, S.**, Kraemer, P.J., Dendle, P., and Prasad RM (2000) Three months of chronic ethanol administration and the behavioral outcome of rats after lateral fluid percussion brain injury. *Journal of Neurotrauma*. 17:421-430.

39. Steingart, R.A., Silverman, W.F., **Barron, S.**, Slotkin, T.A., Award, Y. and Yanai, J. (2000) Neural grafting reverses prenatal drug-induced alterations in hippocampal PKC and related behavioral deficits. *Developmental Brain Research* 125:9-19.

40. Littleton J.M., Lovinger D., Liljequist S., Ticku R., Matsumoto I., **Barron S.** (2001) Role of polyamines and NMDA receptors in ethanol dependence and withdrawal. *Alcohol Clin Exp Res*. 25(Suppl):132S-136S.

41. Prendergast, M.A., Rogers, D.T., **Barron, S.**, Bardo, M.T., Littleton, J.M. (2002) Ethanol and nicotine: A pharmacologic balancing act? *Alcoholism: Clin Exp Res*; 26:1917-1918.

42. Rogers, D.T., **Barron, S.** and Littleton, J.M. (2004) Neonatal ethanol exposure produces a hyperalgesia that extends into adolescence, and is associated with increased analgesic and rewarding properties of nicotine in rats. *Psychopharmacology* 171:204-211.

43. **Barron S.**, Gilbertson R.* (2005) Neonatal ethanol exposure but not neonatal cocaine selectively reduces specific isolation-induced vocalization waveforms in rats. *Behavior Genetics* 35:93-102.

44. Hansen-Trench L.S.*, **Barron S.** (2005) Effects of neonatal alcohol and/or cocaine exposure on stress in juvenile and adult female rats. *Neurotoxicology and Teratology*

27:55-63.

45. Gilbertson R.J.*, **Barron S.** (2005) Neonatal ethanol and nicotine exposure causes locomotor activity changes in preweanling animals. *Pharmacology, Biochemistry and Behavior*. 81:54-64.
46. **Barron, S.**, White, A., Swartzwelder, A., Bell, R.L., Rodd, Z.A., Slawecki, C.J., Ehlers, C.L., Levin, E.D., Rezvani, A.H. and Spear, L.P. (2005) Adolescent vulnerabilities to chronic alcohol or nicotine exposure: Findings from rodent models. *Alcoholism: Clinical and Experimental Research* 29(9):1720-1725.
47. Mello, C.F., Rubin, M.A., Sultana, R., **Barron, S.**, Littleton, J.M., Butterfield, D.A. (2007) Difluoromethylornithine (DFMO) prevents protein oxidation induced by neonatal ethanol exposure in the hippocampus of young rats. *Alcoholism: Clinical and Experimental Research* 31:887-894.
48. Littleton, J.M., **Barron, S.**, Nixon, S.J., and Prendergast, M. (2007) Smoking kills alcoholics! Shouldn't we do something about it? *Alcohol and Alcoholism* 42(3):167-73.
49. Farook, J.M.*, Morrell, D.J.*, Lewis, B.*, Littleton, J.M., **Barron, S.** (2007) Topiramate (Topamax®) reduces conditioned abstinence behaviors and handling induced convulsions (HIC) after chronic administration of ethanol in Swiss-Webster mice. *Alcohol and Alcoholism* 42:296-300.
50. Lewis, B.*, Wellman, K.*, **Barron, S.** (2007) Agmatine reduces balance deficits in a rat model of third trimester binge-like alcohol exposure. *Pharmacology, Biochemistry and Behavior* 88:114-21.
51. **Barron, S.**, Mulholland, P.J.*, Littleton, J.M., and Prendergast, M.A. (2008) Age and gender dependent differences in response to neonatal ethanol withdrawal and polyamine challenge in organotypic hippocampal cultures. *Alcoholism: Clinical and Experimental Research* 32:929-36.
52. Farook, J.M.*, Lewis, B.*, Morrell, D.J.*, Krazem, A., Littleton, J.M., Barron, S. (2008) Acamprosate attenuates the handling induced convulsions during alcohol withdrawal in Swiss-Webster mice. *Physiology and Behavior* 95:267-70.
53. Stepanyan, T.D.*, Farook, J.M.*, Kowalski, A. Kaplan, E., Barron, S., Littleton, J.M. (2008) Alcohol withdrawal induced hippocampal neurotoxicity *in vitro* and seizures *in vivo* are both reduced by memantine. *Alcoholism: Clinical and Experimental Research* 2:2128-35.
54. Farook, J.M.*, Littleton, J.M. and **Barron, S.** (2009) Topiramate reduces stress-induced alcohol consumption in C57BL/6J mice. *Physiology and Behavior* 96:189-93.

55. Rubin, M.A., Overgaauw, B.O., Wellmann, K.A. Lewis, J.B., Littleton, J.M., Barron, S. (2009) Difluoromethylornithine (DFMO) reduces deficits in isolation-induced ultrasonic vocalizations and balance following neonatal ethanol exposure in rats. *Pharmacology, Biochemistry and Behavior*, 92:44-50.

56. Farook JM, Lewis B, Gaddis JG, Littleton JM, Barron S. (2009) Effects of mecamlamine on alcohol consumption and preference in male C57BL/6J mice. *Pharmacology*. 83:379-84.

57. Farook JM, Lewis B, Gaddis JG, Littleton JM, Barron S. (2009) Lobeline, a nicotinic partial agonist attenuates alcohol consumption and preference in male C57BL/6J mice. *Physiology and Behavior* 97:503-6.

In Press:

Wellmann, K.A., Lewis, B., and Barron, S. Agmatine reduces ultrasonic vocalization deficits in female rat pups exposed neonatally to ethanol. *Neurotoxicology and Teratology*.

Accepted Pending Minor Revision:

Gilbertson, R.J.*, **Barron, S.** The effects of neonatal ethanol and/or nicotine on performance in a radial 8-arm maze. *Alcoholism: Clinical and Experimental Research*

Under Review:

Smith, K.J., Barron, S., Littleton, J.M. Prendergast, M.A. Prolonged ethanol exposure sensitizes the hippocampus to neurotoxic effects of γ -aminobutyric acid type-A receptor inhibition.

Stepanyan, T.D., Kowalksi, A., Harris, B.R., Kaplan, E., Holley, R.C., Mulholland, P.J., Barron, S., Prendergast, M.A., Littleton, J.M. Ethanol exposure enhances toxicity induced by oxygen-glucose deprivation in hippocampal slice cultures of neonatal rat: Effects of memantine.

Gomes, G.M., Mello, C.F., Melgarejo da Rosa, M., Vargas Bochi, G.V., Ferreira, J., Barron, S., Rubin, M.A. Polyaminergic agents modulate contextual fear extinction in rats.

INVITED PRESENTATIONS AND POSTERS (* denotes graduate student or postdoc)

Barron, S., and Riley, E.P. Effect of prenatal alcohol exposure on spontaneous maternal behavior in adult male and juvenile female rats. Presented at Behavioral Teratology, 1984. Abstract published in *Teratology*, 29:3B-4B.

Barron, S., and Riley, E.P. The effects of deanol on activity levels of rats prenatally exposed to alcohol. Presented at Eastern Psychological Association, 1984.

Smotherman W.P., Woodruff, K.S., Robinson, S.R., del Real, C., **Barron, S.**, and Riley, E.P. In utero exposure to alcohol induces changes in fetal behavior. Presented at Society for Neuroscience, 1984.

Barron, S., Mattson, S., and Riley, E.P. The effects of prenatal alcohol exposure on long-term retention of odor aversion learning in preweanling rats. Presented at Eastern Psychological Association, 1985.

Barron, S., and Riley, E.P. The effects of prenatal alcohol exposure on odor aversion learning in preweanling rats. Presented at Research Society on Alcoholism, 1985. Abstract published in *Alcoholism: Clinical and Experimental Research*, 9:193.

Barron, S., Riley, E.P., Smotherman, W.P., and Kotch, L.E. Umbilical cord length in rats is altered by prenatal alcohol exposure. Presented at Teratology, 1985. Abstract published in *Teratology*, 31:2B.

Smotherman, W.P., Woodruff, K.S., Robinson, S.R., del Real, C., **Barron, S.**, and Riley, E.P. In utero alcohol exposure suppresses spontaneous behavior of rat fetuses in utero. Presented at Research Society on Alcoholism, 1985. Abstract published in *Alcoholism: Clinical and Experimental Research*, 9:212.

Barron, S., Gagnon, W., Tieman, S.B., and Riley, E.P. The effects of prenatal alcohol exposure on the volume of the sexually dimorphic nucleus of the hypothalamus in male and female rats. Presented at the 3rd Congress of the International Society for Biomedical Research on Alcoholism, 1986. Abstract published in *Alcohol and Alcoholism* 21:A46.

Barron, S., Gagnon, W., and Riley, E.P. The effects of prenatal alcohol exposure on respiration rate and habituation to a novel odor in neonatal rats. Presented at Society for Neuroscience, 1986.

Barron, S. The Effects of Prenatal Alcohol Exposure on the CNS: A Round-table Discussion. Invited address at the Hudson-Berkshire Chapter Meeting of the Society for Neuroscience, February, 1987.

Barron, S., Zimmerberg, B., Gagnon, W., and Riley, E.P. Respiration and thermoregulation in neonatal pups exposed to alcohol in utero. Presented at Research Society on Alcoholism, 1987. Abstract published in *Alcoholism: Clinical and Experimental Research*.

Barron, S., Tieman, S.B. and Riley, E.P. A further examination of the effects of prenatal alcohol exposure on the sexually dimorphic nucleus of the hypothalamus in male and female rats. Presented at Society for Neuroscience, 1987.

Barron, S., Gagnon, W. and Riley, E.P. The effects of prenatal alcohol exposure on the main olfactory bulb and vomeronasal organ in 3-day-old rats. Presented at the 4th Congress of the International Society for Biomedical Research on Alcoholism, 1988.

Barron, S. and Riley, E.P. The effects of prenatal alcohol exposure on the leg extension response in neonatal rat pups. Presented at Research Society on Alcoholism, 1988. *Alcoholism: Clinical and Experimental Research*, 12:342.

Barron, S., Foss, J.A. *, and Riley, E.P. Habituation and sensitization to a startle response in rats following neonatal alcohol exposure. Presented at Research Society on Alcoholism, 1988. *Alcoholism: Clinical and Experimental Research*, 12:344.

Barron, S. and Riley, E.P. Neonatal alcohol exposure alters passive avoidance performance in female but not male rats. Presented at the Second National Conference on Alcohol Abuse and Alcoholism, 1988.

Barron, S., Kelly, S.J. and Riley, E.P. The effects of neonatal alcohol exposure on suckling performance in rat pups. Poster presented at Research Society on Alcoholism, 1989. Abstract published in *Alcoholism: Clinical and Experimental Research*, 13:319.

Barron, S. Sex Differences in Alcohol Effects on Non-reproductive Behaviors. Invited address at Research Society on Alcoholism, 1989.

Barron, S. Prenatal Exposure to Alcohol. Fall 1989 Speaker Series, Psychology Department, San Diego State University.

Barron, S., Henderson, S. and Riley, E.P. The effects of prenatal alcohol exposure on fetal movements in rats. Presented at Research Society on Alcoholism, June 1991. Abstract published in *Alcoholism: Clinical and Experimental Research*.

Barron, S., and Pargeon, J. Third trimester cocaine exposure in rats and motor performance. Presented at the Committee on Problems of Drug Dependence, June 1991.

Barron, S. Rodent models of prenatal drug effects. Presented at Oregon Health Science University, Department of Medical Psychology, Portland Oregon, June 1992.

Barron, S., Nowakowski, A.M., and Riley, E.P. Activity following third trimester alcohol exposure in P and NP rats. Presented at the International Society for Biomedical Research on Alcoholism, 1992. Abstract published in *Alcoholism: Clinical and Experimental Research* 16:611.

Barron, S., Kaiser, D.H. *, Spalmacin, K., and Hansen, L.S. * Activity and responsivity to cocaine following third trimester cocaine exposure in rats. Presented at Neuroscience meeting, 1992. Abstract published in Society for Neuroscience Abstracts 18:366.

Barron, S., Hansen, L.H. *, Kaiser, D.H. *, Massey, K. *, and Stone, M. * Motor performance following neonatal exposure to ethanol, cocaine, or ethanol/cocaine in rats. Presented as a poster at Research Society on Alcoholism, Summer, 1993.

Barron, S. Rodent models of prenatal alcohol and cocaine effects. Department of Pharmacology Seminar Series, Summer 1993.

Barron, S., and Pargeon, J. A rodent model to look at the effects of third trimester cocaine exposure. Presented at the 11th International Neurotoxicology Conference, September 1993.

Barron, S., Hansen, L.S. *and Kaiser, D.H. * Developmental measures following neonatal exposure to ethanol, cocaine or ethanol/cocaine in rats. Presented at Research Society on Alcoholism, Summer 1994.

Barron, S., Kaiser, D.H. *, Harrod, S.B. and Hansen, L.S. * Problem solving following neonatal exposure to ethanol, cocaine, or ethanol/cocaine in rats. Presented at the International Society for Biomedical Research on Alcoholism, Summer 1994.

Kaiser, D.H. *, Robinet, P. *, Bardo, M.T., and **Barron, S.** The effect of neonatal cocaine exposure on dopamine receptor binding and D₂ mediated behavior. Presented at Society for Neuroscience, 1994

Hansen, L.S. *, Segar, T. * and **Barron, S.** Neonatal alcohol, cocaine or alcohol/cocaine effects on a runway task in young rats. Presented at Society for Neuroscience, 1994.

Barron, S. The effects of neonatal cocaine exposure. Graduate Center for Toxicology Seminar Series, Spring, 1995.

Belcheva, M.M., Ho, M.T., Ignatova, E., Jefcoat, L.B., Barg, J., Vogel, Z., Johnson, F.E., **Barron, S.**, Coscia, C. Buprenorphine induced opioid receptor adaptation: Evidence from cross-linking and binding assays.

Trench, L.S. *, Segar, T.M. *, Swope, J.A. *, and **Barron, S.** Effects of prenatal buprenorphine on maternal and offspring measures in rats. Presented at Society for Neuroscience, 1995.

Swope, J.A. *, Segar, T.M. *, Trench, L.S.** , and **Barron, S.** The effects of neonatal cocaine exposure on acquisition of a runway task in a modified T-maze. Presented at

Society for Neuroscience, 1995.

Barron, S. and Chung, V.M.*The effects of prenatal buprenorphine exposure on sexual differentiation in the rat. Presented at the International Society for Developmental Psychobiology, 1995.

Trench, L.S.*, Segar, T.M.*, **Barron, S.** Effects of postnatal cocaine exposure on activity in a running wheel. Presented at MPA, 1996

Willford, J.A.*, Trench, L.S.*, Segar, T.M.*, Bonta, T.N. and **Barron, S.** Effects of neonatal cocaine exposure on a play rewarded spatial discrimination in rats. Presented at MPA, 1996.

Segar, T.M.*and **Barron, S.** Effects of neonatal cocaine exposure on saccharin consumption in rats. Presented at MPA, 1996.

Willford, J.A.*, Withers, A., and **Barron, S.** Effects of neonatal cocaine exposure on behavioral responses to a novel odor in an open field. Presented at Neuroscience, 1996.

Trench, L.S.*, Staton, C.M.*, and **Barron, S.** Effects of neonatal cocaine exposure on behavioral response to clonidine in rats. Presented at Neuroscience, 1996.

Segar, T.M.*, Hauser, K.F., and **Barron, S.** Neonatal cocaine exposure effects on the volume of the sexually dimorphic nucleus of the preoptic area. Presented at Neuroscience, 1996.

Barron, S., Shepherd, A.B.*, Segar, T.M.*, Trench, L.S.*and Willford, J.A.* Isolation-induced ultrasonic vocalizations following neonatal exposure to ethanol, cocaine or ethanol and cocaine in combination in young rat pups. Presented at the International Behavioral Neuroscience Society Meeting, 1997.

Trench, L.S.*, Witte, S.* and **Barron, S.** Neonatal exposure to alcohol, cocaine or the combination: Effects on response to behavioral stress in rats. Presented at the Neurobehavioral Teratology Society Meeting, 1997.

Segar, T.M.*, Bardo, M.T., Klebaur, J.* and **Barron, S.** Deficits in the acquisition of a fixed ratio schedule in rats neonatally exposed to ethanol and cocaine. Presented at the Research Society on Alcoholism, 1997.

Willford, J.A.*, **Barron, S.**, Hauser, K.F. The effects of neonatal cocaine, alcohol or the combination on dendritic spine density in the cerebellum. Presented at the Research Society on Alcoholism, 1997.

Segar, T.M.*, Bardo, M.T., Klebaur, J.*, **Barron, S.** Response to acute cocaine

exposure in adult male rats neonatally exposed to ethanol and/or cocaine. Presented at the Research Society on Alcoholism Meeting, 1998.

Willford, J.A.*, Webb, C.*, Deveraux, A.*, Kraemer, P. and **Barron, S.** Effects of alcohol, cocaine or alcohol/cocaine in combination on performance of a cognitive timing task - a pilot study. Presented at Research Society on Alcoholism Meeting, 1998.

Barron, S., Segar, T.M.*and Massey, J. Neonatal ethanol or ethanol/cocaine exposure reduces isolation-induced ultrasonic vocalizations in young rat pups. Presented at International Society for Biomedical Research on Alcoholism, 1998.

Willford, J.A.* and **Barron, S.** The effects of neonatal exposure to alcohol, cocaine or alcohol/cocaine in combination on dominance behavior. Presented at International Society for Biomedical Research on Alcoholism, 1998.

Segar, T.M.*, Bardo, M.T., Klebaur, J.*, and **Barron, S.** Cocaine-self administration in adult male rats neonatally exposed to ethanol and/or cocaine. Presented at Society of Neuroscience, 1998.

Willford, J.A.*, Segar, T.M.*, Basehart, B.J., Dickey, K.M. and **Barron, S.** Effects of perinatal fembendazole exposure on growth and behavior parameters in rats. Presented at Society of Neuroscience, 1998.

Using a rodent model to study the behavioral effects of ethanol and cocaine during development. Invited address at Indiana University/Purdue University at Indianapolis, 1998.

Barron, S. New Research and Issues related to Alcohol, Polydrug Exposure and Development. Organizer and chair of symposium at the Research Society on Alcoholism Meeting, 1998.

Barron, S. Ethanol and cocaine interactions during development in a rodent model. Oral presentation at the Research Society on Alcoholism Meeting, 1998.

Yanai, J., **Barron, S.**, and Steingart, R.A. Prenatal heroin-induced hippocampal behavioral deficits and cholinergic alterations: reversal by neural grafting and correlation within individuals. Presented at the Neurobehavioral Teratology Society Meeting, 1999.

Segar, T.M.*, Willford, J.A.* and **Barron, S.** Manipulations of an environmental cue does not increase ultrasonic vocalizations in young rat pups neonatally exposed to ethanol. Presented at the Research Society on Alcoholism Meeting, 1999.

Willford, J.A.*, Victor, T.L.*, Segar, T.M.*, Basehart, B.J. and **Barron, S.** Effects of neonatal alcohol and/or cocaine exposure on Morris Water Maze performance in young

adult rats. Presented at the Research Society on Alcoholism Meeting, 1999.

Willford, J.A.*, Segar, T.M.*, Basehart, B.J. and **Barron, S.** Effects of neonatal alcohol and/or cocaine exposure on learning and play behavior in a spatial discrimination task in rats. Presented at Society for Neuroscience, 1999.

Barron, S. Cocaine and Alcohol Interactions During Development in Rats: A Behavioral Analysis. Seminar in Department of Pharmacology, University of Kentucky, 1999.

Rogers, D.T.R.*, **Barron, S.**, Prendergast, M. and Littleton, J. Nicotine effectively reverses hyperalgesia associated with intermittent ethanol treatment of neonatal rats by intragastric intubation. Presented at the Research Society on Alcoholism Meeting, 2000.

Segar, T.M.*, Bardo, M.T. and **Barron, S.** Neonatal ethanol exposure increases responding for sucrose pellets on a progressive ratio schedule in adult rats. Presented at the Research Society on Alcoholism Meeting, 2000

Segar, T.M.*, Bardo, M.T., and **Barron, S.** Neonatal cocaine exposure increases the reinforcing effects of cocaine in adult male rats as measured by progressive ratio. Presented at Society of Neuroscience, 2000.

Yahr, J.S.*, Baseheart, B.J., Land, C.L., Akamatsu, T., Yan, H.Y., and **Barron, S.** An examination of the types of ultrasonic vocalizations displayed by neonatal rats. Presented at Society of Neuroscience, 2000.

Barron, S. Baseheart, B., Yahr, J.* and Littleton, J.M. Does Agmatine play a protective role in the effects of neonatal alcohol exposure? Presented at Society of Neuroscience, 2001.

Willford, J.*, Baseheart, B., Sachs, B.*, Christianson, S*, Deveraux, A.* & **Barron, S.** Effects of neonatal alcohol, cocaine or alcohol/cocaine on cognitive function as measured by timing behavior in adult rats. Presented at Research Society on Alcoholism, 2001.

Direct Dosing of Prewaning Rodents. Part of International Life Sciences Institute Symposium. Presented at Teratology meeting, June, 2002.

Developmental Alterations in NMDA Receptor-Mediated Neurotoxicity: Implications for Perinatal Alcohol Exposure and Therapy. Invited Presentation for RSA Satellite Symposium: Experimental Therapeutics for Fetal Alcohol Syndrome, June, 2002.

Littleton, J.M., **Barron, S.**, Crooks, P. Drug screening for potential value in alcohol dependence. Presented at the Research Society on Alcoholism Meeting, June, 2002.

Gilbertson, R.J.*, **Barron, S.**, Baseheart, B.J., Bryant, S.A.*, and Littleton, J.M. The effects of neonatal ethanol and ifenprodil exposure on a spatial memory task. Presented at the Research Society on Alcoholism Meeting, June, 2002.

Morrell, D.J.*, Stilz, C.M., Stevens, C.L., Gilbertson, R.J.*, Littleton, J.M., and **Barron, S.** Acamprosate reduces ethanol consumption using an accelerated sucrose-fading schedule. Presented at the Research Society on Alcoholism Meeting, 2003. *Alcoholism: Clinical and Experimental Research* 27: 62A.

Gilbertson, R.J.*, Rogers, D.T., **Barron, S.**, and Littleton, J.M. Nicotine levels in neonatal rat brain following oral administration alone or in combination with ethanol. Presented at the Research Society on Alcoholism Meeting, 2003. *Alcoholism: Clinical and Experimental Research* 27: 45A.

Invited Presentation: Oregon Health Science University, Department of Biomedical Psychology, Spring 2003.

Gibson, D.A., Morrell, D.J.*, Littleton, J.M., and **Barron, S.** Validation and use of a simple screen for testing novel compounds on ethanol withdrawal-induced seizures. Presented at the Research Society on Alcoholism Meeting, 2003. *Alcoholism: Clinical and Experimental Research* 27: 99A.

Gilbertson, R.J.*, **Barron, S.**, and Stilz, C.M. The effects of neonatal ethanol and nicotine exposure on spatial learning and memory. Presented at the Neuroscience Society Meeting, 2003.

Stepanyan, T. *, Harris, B. *, **Barron, S.**, Blanchard, J., Holley, R., Hadley, R., Littleton, J.M. Potential interactions between prior ethanol exposure and hypoxia/hypoglycemia-induced neurotoxicity In organotypic hippocampal slice cultures. Presented at the Research Society on Alcoholism Meeting, June, 2004.

Gilbertson, R.J.*, **Barron, S.** The effects of neonatal ethanol and nicotine exposure on radial arm maze performance in rats. Presented at the Midwestern Psychological Association Meeting, 2004.

Gilbertson, R.J.*, **Barron, S.**, Stilz, C., Schulman, D. *, Stevens, C., Lewis, K. Littleton, J.M., Gender differences in alcohol consumption during adolescence as assessed by a sucrose fading/ alcohol deprivation effect paradigm. Presented at Research Society on Alcoholism Meeting, June, 2004.

Is adolescence special? Possible age-related vulnerabilities to chronic alcohol or nicotine exposure. A Joint Symposium for the Fetal Alcohol Syndrome Study Group and the Neurobehavioral Teratology Society. Co-organizer of Symposium presented at

the Research Society on Alcoholism, 2004.

Barron, S., Prendergast, M.A., Mulholland, P.J.*, Littleton, J.M. Further evidence that polyamines contribute to ethanol withdrawal neurotoxicity in the neonatal rat organotypic hippocampal slice preparation. Oral presentation, Society for Neuroscience, 2004.

Stepanyan, T. *, Harris, B. *, **Barron, S.**, Blanchard, J., Holley, R., Hadley, R., Littleton, J. Pharmacological modification of neuronal damage in a model of perinatal alcohol exposure. Presented at RSA, 2005.

Stewart, W.A.*, Mulholland, P.J.*, Prendergast, M.A. ,Littleton, J.M., and Barron, S. Possible developmental differences in sensitivity to ethanol withdrawal induced neurotoxicity using an organotypic hippocampal culture model. Presented at the Research Society on Alcoholism Meeting, 2005.

Wellmann, K.A.*, Stewart, W.A.*, Littleton, J.M., and Barron, S. Critical windows for neonatal ethanol's effects on isolation-induced ultrasonic vocalizations in rat pups. Presented at the Research Society on Alcoholism Meeting, 2005.

Wellmann, K.A.*, Morrell, D.J.*, Overgaauw, B.O. Alexander, J.L. *, and Barron, S. Critical timing for neonatal ethanol's effects on balance and the role of agmatine as a neuroprotective agent in juvenile rats. Presented at the International Society for Developmental Psychobiology, 2005.

Rubin M.A., Overgaauw B.O., Lewis J.B., Littleton, J.M. and Barron S. Difluoromethylornithine (DFMO) prevents the inhibitory effect of ethanol on isolation-induced ultrasonic vocalization. Presented at the Research Society on Alcoholism Meeting, 2006.

Wellmann, K.A. Lewis, J.B. Alexander, J.L. Overgaauw, B.O. and S. Barron, Agmatine attenuates the effects of early neonatal ethanol exposure on 50 khz ultrasonic vocalizations in juvenile rats anticipating play. Presented at the Research Society on Alcoholism Meeting, 2006.

Farook, J.M. Bowling, E. Morrell, D.J. Estes, A. Littleton, J.M., Barron S. Topiramate, a novel anticonvulsant drug reduces handling induced convulsions (HIC), ethanol withdrawal signs and anxiety-related behaviors during ethanol withdrawal in Swiss-Webster mice. Presented at the Research Society on Alcoholism Meeting, 2006.

Lewis, B., Farook, J.M., Morell, D.J., Krazem, A., Littleton, J.M., Barron, S. A simple behavioral screen for anticonvulsant compounds using an ethanol withdrawal induced seizure model. Presented at the Research Society on Alcoholism Meeting, 2006.

Lewis, B., Wellmann, K.A., Rubin, M.A., and Barron, S. Balance deficits associated with

neonatal ethanol exposure are attenuated by compounds known to modulate polyamine activity. Poster and talk presented at The International Society for Developmental Psychobiology, November, 2006. Abstract published in *Developmental Psychobiology* 48, 617.

Wellmann, K.A., Lewis, J.B., Estes, P.A., Carter, L., and Barron, S., Agmatine preferentially ameliorates activity deficits in juvenile female rats exposed to ethanol during the early postnatal period. Presented at The Research Society on Alcoholism Meeting, July 2007. Abstract published in *Alcoholism: Clinical and Experimental Research* 31:187A.

Hutton Kehrberg, A., Lewis, J.B., Farook, J.M., Wellmann, K.A., Littleton, J.M., and Barron, S. A novel compound, JR-220, reduces alcohol deprivation effects in rats. Presented at the Research Society on Alcoholism Meeting, July 2007. Abstract published in *Alcoholism: Clinical and Experimental Research* 31:140A.

Lewis, B., Wellmann, K.A., Barron, S. Balance deficits associated with neonatal ethanol exposure are attenuated by the NMDA antagonist CP-101,606. Presented at the Research Society on Alcoholism Meeting, July 2007. Abstract published in *Alcoholism: Clinical and Experimental Research* 31:149A.

Stepanyan, T.D., Kowalski, A., Overgauw, B., Lewis, B., Wellman, K., Barron, S., Littleton, J.M. Development of a model for effects of neonatal alcohol exposure and anoxia on rat behavior. Presented at the Research Society on Alcoholism Meeting, July 2007. Abstract published in *Alcoholism: Clinical and Experimental Research* 31:153A.

Farook J.M., Littleton, J.M. and Barron, S. Topiramate attenuates the increased consumption of alcohol in C57BL/6J mice following restraint. Presented at the Research Society on Alcoholism Meeting, July 2007. Abstract published in *Alcoholism: Clinical and Experimental Research* 31:207A.

Prendergast, M.A., Littleton, J.M., Barron, S. Sex differences and similarities in response to NMDA receptor modulators during alcohol withdrawal in vitro. Presented at the Research Society on Alcoholism Meeting, July 2007. Abstract published in *Alcoholism: Clinical and Experimental Research* 31:266A.

Ways to Reduce Alcohol's Effects on Brain and Behavior. Center for Drug Abuse Research Translation Research Forum, University of Kentucky, 2007.

Lewis, B., Wellmann, K.A., Cohen, M., Baldwin, T., S. Barron, S. Spatial navigation deficits associated with neonatal ethanol exposure are attenuated by the NMDA antagonist CP-101,606. Presented at the International Society for Developmental Psychobiology, 2007. Abstract published in *Developmental Psychobiology* 49:733.

Wellmann, K.A., Lewis, J.B., Hutton Kehrberg, A., Estes, P.A., Carter, L., Carter, M., and Barron, S. Acute agmatine administration during ethanol withdrawal ameliorates ultrasonic vocalization deficits in pups exposed to ethanol during the first neonatal week. Presented at the International Society for Developmental Psychobiology, 2007. Abstract published in *Developmental Psychobiology* 49:744.

Hutton Kehrberg, A., Wellmann, K.A., Lewis, B., Estes, A., ; Dwoskin, L.P., Barron, S. Lobeline reduces hyperactivity induced by neonatal alcohol exposure. Presented at the International Society for Developmental Psychobiology Meeting, 2007. Abstract published in *Developmental Psychobiology* 49: 729.

Littleton J., Barron S., Crooks P., Ring J., Sonar V., Holley R., Rogers D. T., Stepanyan T., Kaplan E., Kowalski A., Farook J., Lewis B., Hutton Kehrberg, A., Wellmann, K.A. The novel NMDA receptor modulator JR220 is positive in an entire anti-relapse screening hierarchy. Presented at the Joint International Society for Biomedical Research on Alcoholism and Research Society on Alcoholism Meeting, June, 2008. Published in *Alcoholism: Clinical and Experimental Research* 32:85A.

Wellmann, K.A., Lewis B., Kehrberg A.H., Carter M., Littleton J.M., and Barron, S. JR-220, a novel polyamine antagonist, reduces ultrasonic vocalization deficits in infant rat pups following 3rd trimester ethanol exposure. Presented at the Joint International Society for Biomedical Research on Alcoholism and Research Society on Alcoholism Meeting, June, 2008. Published in *Alcoholism: Clinical and Experimental Research* 32:138A.

Farook, J.M., Lewis, B., Littleton, J.M., Barron, S. Lobeline attenuates alcohol consumption in C57BL/6J mice using a 2-choice test procedure. Presented at the Joint International Society for Biomedical Research on Alcoholism and Research Society on Alcoholism Meeting, June, 2008. Published in *Alcoholism: Clinical and Experimental Research* 32:217A.

Lewis B., Wellmann, K.A., Kehrberg, A.H., Carter L.G., Littleton J.M., Barron, S. Hippocampal damage associated with early ethanol exposure is attenuated by the NR2B subunit-specific NMDA receptor antagonist CP-101,606. Presented at the Joint International Society for Biomedical Research on Alcoholism and Research Society on Alcoholism Meeting, June, 2008. Published in *Alcoholism: Clinical and Experimental Research* 32:230A.

K.A. Wellmann, K.A., Lewis, B. Kehrberg, A.H. Carter, M. Carter, L. Littleton J.M. and S. Barron. JR-220, a novel polyamine blocker, reduces spatial memory deficits in juvenile rat pups following "3rd trimester" ethanol exposure. Presented at the Fetal Alcohol Spectrum Disorder Study Group Meeting, 2008 (and recipient of an FASDSG travel award).

Manipulation of polyamine and NMDAR activity can reduce alcohol's effects. UK

Neuroscience Seminar Series, 2008.

Rubin, M.A., Gomes, G.M., DaRosa, M.M., Barron, S. and Mello, C.F. Polyaminergic agents modulate extinction of conditioned fear in rats. Presented at the Annual Neuroscience Meeting, 2008.

Wellmann, K.A., Lewis, B., Kehrberg, A.H., Carter, M., Carter, L., Littleton, J.M., Crooks, P. and Barron, S. JR-220, A novel compound, reduces spatial memory deficits in adolescent rats following "3rd trimester" ethanol exposure. Presented at the Annual Neuroscience Meeting, 2008.

Lewis, B., Farook, J.M., Wellmann, K, Crooks, P.A., Littleton, J.M., Barron, S. A novel compound, JR-220, reduces voluntary alcohol consumption in a limited-access "drinking in the dark" paradigm. Presented at the Annual Neuroscience Meeting, 2008.

Farook, J.M., Lewis, B., Littleton, J.M., Barron, S. Nicotinic agents attenuate initial alcohol consumption in C57BL/6J mice on a 2-choice drinking procedure. Presented at the Annual Neuroscience Meeting, 2008.

A. Hutton Kehrberg, A., Carter, L., Wellmann, K.A., Prendergast, M.A., Littleton, J.M., Barron, S. A novel compound, JR-220, reduces ethanol withdrawal-induced neurotoxicity in organotypic hippocampal slice cultures. Presented at the Annual Neuroscience Meeting, 2008.

Sithisarn, T., Barron, S., Wellmann, K., Legan, S., Bada, H.S., Charnigo, R., Randall, D.C. Effects of Prenatal oxycodone exposure on the cardiovascular response to acute stress and neurobehavioral outcome in the offspring. Southern Society of Pediatric Research Meeting, 2008.

Lewis, B., Wellmann, K.A., Song, Y.M. Barron, S. Environmental enrichment affects motor coordination and voluntary ethanol consumption in a rodent model of 3rd trimester ethanol exposure. Presented at the Research Society on Alcoholism Meeting, 2009.

Wellmann, K.A., Lewis, B., Kehrberg, A.H., Carter M., Carter, L., Littleton J.M, Crooks, P., and Barron S. JR220, a novel compound reduces social, locomotor, balance, and memory deficits in rats following "3rd trimester" ethanol exposure. Presented at the Research Society on Alcoholism Meeting, 2009.

Wellmann, K.A., Lewis, B., Carter, L., Carter, M., Dwoskin L., and Barron S. Lobeline dose-dependently attenuates hyperactivity in a rodent model of third trimester ethanol exposure. Presented at the International Developmental Psychobiology Society Conference, 2009.

Current Laboratory Members
Graduate Students

Kristen Wellmann
Ben Lewis

Postdoctoral Scientists

Dr. Justin Farook –2005- 2009; currently at Florida State University with Dr. Mohamed Kabbaj

Dr. Ana Kehrberg – 2006 – 2008; recipient of NIDA training postdoctoral funding from NIDA training grant through Behavioral Sciences; currently visiting Assistant Professor at Muskingham College

Dr. Ali Krazem- 2005-2006

Dr. Maribel Rubin – visiting scientist 2005-2006; primary appointment, Federal University of Santa Maria in Rio Grande do Sul, Brazil

Graduate Student Awards (non-federal):

Research Society on Alcoholism 2009 Enoch Gordis Award for outstanding research, Kristen Wellmann

Research Society on Alcoholism Graduate Student Travel Award, Kristen Wellmann, 2005, 2006, 2007, 2008, 2009

Research Society on Alcoholism Graduate Student Travel Award, Ben Lewis, 2006, 2007, 2008, 2009

International Society for Developmental Psychobiology, Graduate Student Travel Award, Kristen Wellman, 2005, 2007

International Society for Developmental Psychobiology, Graduate Student Travel Award, Ben Lewis, 2006, 2007

Research Society on Alcoholism Student Travel Award, Rebecca Gilbertson, 2003, 2004

Departmental Research Challenge Trust Fund Fellowship: Tracy Segar, 1998, Rebecca Gilbertson, 2003.

Commonwealth Research Award, 1998, Jennifer Willford

Doctoral Dissertation Year Fellowship - Jennifer Willford, 1998-1999

Research Society on Alcoholism Student Travel Award, Tracy Segar, 1997, 1998

Research Society on Alcoholism Student Travel Award, Jennifer Willford, 1997, 1998

International Society for Biomedical Research on Alcoholism Student Travel Award, Jennifer Willford, 1998

Doctoral Dissertation Year Fellowship - Lynne Hansen-Trench, 1996-1997

Students:

Ph.D Committee Chair or Co-Chair

Lynne Hansen - completed, 1998

Jennifer Swope- completed, 2000

Tracy Segar

Ph.D. Committee Member

James Rowlett- completed (Psychology)

Chris Randall- completed (Psychology)
 Chantal Prewitt- completed (Anatomy and Neurobiology)
 Patricia Robinet- completed (Psychology)
 Daren Kaiser - completed (Psychology)
 Russ Brown - completed (Psychology)
 Jennifer Klebauer- completed (Psychology)
 Janice Weaver, (Psychology), completed 2003
 Sherri Ballard - external member - completed (Counseling and Educational Psychology)
 Yan Chen (Anatomy and Neurobiology)- completed 2005
 Maura Maple - external member - Biological Sciences – completed 2003
 Patrick Mulholland – completed, 2005
 Rachel Self – completed 2006
 Swatee Dee – external member - completed, 2006
 Nguyen, Xuan – external member, Anatomy and Neurobiology- completed, 2007
 Josh Eldridge, (College of Pharmacy)
 Sithisarn, Thitinar, (Physiology)

Masters Thesis Advisor

Daren Kaiser- completed
 Lynne Hansen- completed
 Tracy Segar- defended, 1996
 Jennifer Swope- defended, 1997
 Becky Gilbertson- defended, 2004
 Kristen Wellman- defended, 2007
 Ben Lewis –defended, 2008

Masters Thesis Committee Member

Joanne Valone- completed
 Isaac Caton- completed
 Patricia Robinet- completed
 Russell Brown- completed
 Brenda Gehrke, completed, 2001
 Patrick Mulholland - completed
 Emily Roach- completed, 2003
 Rachel Self – completed, 2003
 Emily Harris – completed, 2006

395 Undergraduate Research Students

Kelly Massey - Fall '92, Spring '93 - recipient of Howard Hughes Undergraduate Research Award
 Mark Stone - Fall '92, Spring '93 - completed MA in Experimental Psychology
 Emily Perkins - Spring '93 - in graduate program for Physical Therapy
 Ian Gaddy - Spring '93 - in graduate program for Ophthalmology

Jennifer Cox - Fall '93
Todd Bonta - Spring '94 -1995 - 1996; full-time research associate in lab
Misti Hall - Spring '94, Fall '94 - recipient of Undergraduate Research Award
Franki Chung - Spring '94
Cheryl Guy - Fall '94, Spring '95
Michelle Staton - Spring '95
Angie Withers - Fall '95, Spring '96
Jennifer Lambert - Fall '95, Spring '96
Alan Shephard - Summer, 1996, Fall '96
Ben Girdler - Summer, 1996, Fall '96
Shannon Witte - Fall '96, Spring '97, Fall '97
Angie Geiger - Fall '96, Spring 97
Mike Thompson - Spring '97
Lori Cole - Spring '97
Jeff Baker - Fall '97
Chris Webb - Fall '97, Spring '98
Rebecca Stewart - Spring '98
Kara Kennedy - Spring '98, Fall '98
Ben Fulton - Fall '97, Spring '98
Jimmy Masse - Fall '97
George Pantazakos - Spring '98, Fall '98, Spring '99
Tony Deveraux - Fall '97, Spring '98, Fall '98
Shelly Gray - Fall '98, Spring '99
Kellie Sassin - Fall '98, Spring '99
Sonja Christianson- Spring '99, Summer '99, Fall '99
Brandi Roy - Spring '99
Christian Waugh - REU summer undergraduate - Summer '99
Bonnie Sachs - REU summer undergraduate - Summer '99
Robert Bevins - Summer '99
Masako Ito - Summer '99, Fall '99, Spring'00, Summer '00, Fall '00
Sarah Ostrowski- Fall '99
Brianna Grant - Fall '99
Lynda Norman - Fall '99
Jennifer Weston- Spring '00
Kaori Aki - Spring '00, Fall '00, Spring '01
Autra Pointer - KYSS student Summer '00
Jessica Nelson - REU student Summer '00, Fall '00
Ben Bryant - Summer '00
Danielle Malluche - Fall '00, Spring '01
Christine Stiliz- Spring '01,
Kari Beth Spencer - Summer '01, Fall '01,
Shannon Bryant- Summer '01, Fall '01
Theresa Bacigalupo- BIO 395Fall '01, Spring '02
Brad Beiber, PSY 395, BIO 395 Spring- '02, Fall '02
Amy Fowler - BIO 395 Spring '02, Summer '02, Fall '02

Chrissi Stevens - BIO 395 Fall '02, Spring '03
Vanessa Jennings - Fall '02
Dawn Virag - Fall '02, Spring '03
Jennifer Glen - BIO 395 - Fall '02, Spring '03
Martin Huecker - BIO 395 - Spring '03
Suzanne Sizemore - BIO 395 - Spring '03, Summer '03,
Danielle Johnson – REU student, Summer '03
Kelly Lewis – Fall '03
Katina Ball- Fall '03, Spring '04
Kelley Morrow - Fall '03, Spring '04
Darby Schulman - Fall '03, Spring '04
Will Stewart- BIO 395 Spring '04
Pooja Krishnappa, Fall '04, Spring '05, Fall '05
Dan Fehrenbach, Fall '04, Spring '05
Greg Hardin, Fall '04, Spring '05
Trey Alexander, Fall '04, Spring '05, Summer '05
Will Stewart, Summer '04, Fall '04, Spring '05, Summer '05
DeShayna Davis, Summer '05, Fall '05, Spring '06, Fall '06
Keisha Simmons, Fall '05, Spring '06
Adam Farnsworth, Fall '05, Spring '06
Amber Estes, Fall '05, Spring '06
Megan Carter, Spring '06, Fall '06, Spring '07
Matt Cohen, Summer '06, Fall '06, Spring '07; Fall '07; Spring '08
Lindsay Carter, Summer '06, Fall '06, Spring '07
Taylor Baldwin, Fall '06, Spring '07; Fall '07; Spring '08
Pamela Vasquez, Spring '07; Fall '07; Spring '08
Stephanie Kachermeyer- Spring '07
Amy Solomon, Fall '07; Spring '08
Korey Vallance, Spring '08
Justin Gaddis, Spring '08
Brad Biggs, Spring '08
Erica Sanford, Fall '04 – PSY 399
Whitney Hall, Fall '05, Spring '06 - PSY 399,
Erin Bowling, Spring '06- PSY 499
Matt Cohen, Fall '06, Spring '07, Fall '07, Spring '08
Taylor Baldwin, Spring '07, Fall '07, Spring '08
Megan Carter, Fall '06, Spring '07
Lindsey Carter, Fall '06, Spring '07
Pam Vasquez, Spring '07, Fall '07, Spring '08, Fall '08, Spring '09
Stephanie Kachermeyer, Fall '06' Spring '07
Amy Solomon Fall '07; Spring '08
Brad Biggs, Spring '08; Fall '09
Korey Vallance, Spring '08
Justin Gaddis, Spring '08
Kirsten Wildermuth, Fall '08; Spring '09

Ashlyn Adams, Fall '08; Spring '09; Fall '09
 Bev Woosley, Fall '08; Spring '09
 Lindsey Hornung, Fall '08
 John Jeffries, Fall '08; Spring '09
 Jessie Criswell Spring, '09
 David Nall, Fall '09
 Mary Beth Olson, Fall '09
 Jarrod McGahan, Fall '09
 Nate Kremer, Fall '09

Undergraduate Presentations:

LOBELINE DOSE-DEPENDENTLY REDUCES HYPERACTIVITY IN A RODENT MODEL OF THIRD TRIMESTER ALCOHOL EXPOSURE A.E. Solomon, P. K. Vasquez, K.A. Wellmann, A. Hutton Kehrberg, L.P. Dwoskin¹, and S. Barron. Posters at the Capital, 2008.

DEFICITS IN SPATIAL MEMORY ASSOCIATED WITH NEONATAL ALCOHOL EXPOSURE ARE ATTENUATED BY A SUBUNIT-SPECIFIC NMDA RECEPTOR ANTAGONIST, CP-101,606 M.J Cohen, T.A. Baldwin, B. Lewis, and S. Barron. Posters at the Capital, 2008.

PSY 495 Senior Honor Thesis Undergraduates

Franki Chung - Fall '94, Spring '95 - recipient of Howard Hughes Undergraduate Research Award

Michelle Staton- Fall '95, Spring '96 - recipient of Howard Hughes Undergraduate Research Award

Tara Victor - Fall '97, Spring '98 - recipient of Howard Hughes Undergraduate Research Award

Ben Fulton - Fall '98, Spring '99

Sarah Mills – Fall '03; Spring '04

Biology Honors Undergraduate Projects

Kari Beth Spencer

Suzanne Sizemore - 2004

Jennifer Glen – 2004

Keisha Simmons, 2006

Funded UG student awards:

Howard Hughes Undergraduate Research Award – “Possible effects of neonatal cocaine and alcohol exposure on motor coordination and balance in rats”. Kelli Massey, undergraduate, 1992-1993.

Howard Hughes Undergraduate Research Award – “The effects of prenatal buprenorphine exposure on sexual differentiation in rats”. VuiMin Frankie

Chung, undergraduate, 1994-1995.

Howard Hughes Undergraduate Research Award – “Effects of clonidine on rat pups exposed neonatally to cocaine”. Christa Michele Staton, undergraduate, 1995-1996.

Howard Hughes Undergraduate Research Award – “The effects of neonatal cocaine and alcohol exposure on the spatial memory of rats”. Tara Victor, undergraduate, 1997-1998.

High School Honors Students

Melinda Song- 2007/2008 Paul Lawrence Dunbar High School; quarter-finalist in regional science fair.

High School Student Presentations: JR220, reduces ultrasonic vocalization deficits in infant rat pups following “3rd trimester” ethanol exposure. Y. M. Song, K.A. Wellmann, B. Lewis, J., J.M. Littleton¹, and S. Barron. Presented at the University of Kentucky Spring Neuroscience Day, 2007.