

Robert E. Sorge, Ph.D.

Assistant Professor
Department of Psychology
University of Alabama at Birmingham
1300 University Blvd, CH 363
Birmingham, AL 35294
Email: rsorge@uab.edu
Phone: 205-934-8563
h-index: 12.0

EDUCATION AND TRAINING:

Postdoctoral Fellow

Dates: Sept. 2009-July 2012
Supervisor: Dr. Jeffrey S. Mogil
McGill University
Specialization: Genetics of Pain

Research Skills: Von Frey test (automatic and fibers), Hargreaves' test, hot plate test, tail withdrawal test, formalin test, acetic acid test, chronic inflammation tests, neuropathic pain surgeries (chronic constriction injury, spared nerve injury, ovariectomy), polymerase chain reaction and gels, intrathecal injection, intraplantar injection, intravenous (tail vein) injection.

Postdoctoral Fellow

Dates: Sept. 2006-2009
Supervisor: Dr. Paul B. S. Clarke
McGill University
Specialization: Nicotine Addiction

Research Skills: Monoamine oxidase tissue assay, immunohistochemistry, autoradiography, microscopic imaging and analysis, intracerebroventricular drug administration

Doctor of Philosophy (Ph.D.)

Dates: Sept. 2001 - Sept. 2006
Supervisor: Dr. Jane Stewart
Concordia University
Specialization: Cocaine and Heroin Addiction

Research Skills: Intravenous self-administration, locomotor activity monitoring, *in vivo* microdialysis and HPLC-EC, ELISA, intracranial self-stimulation, intracranial microinjection, immunocytochemistry, perfusion and histology.

Master of Arts (M.A.)

Dates: Sept. 2000 – Sept. 2001
Supervisor: Dr. Linda Parker
Wilfrid Laurier University
Specialization: Anti-emetic potential of THC

Research Skills: Conditioned place preference and aversion, intraoral cannulation, taste reactivity

Bachelor of Science Honours (H.B.Sc.)

Dates: Sept. 1996 – April 2000
Supervisor: Dr. B. Geoff Galef Jr.
McMaster University
Specialization: Environmental Enrichment

Research Skills: Behavioral observation, animal handling, experimental design and statistical analysis

PUBLICATION RECORD

- Melemedjian, O. K., Khoutorsky, A., ***Sorge, R. E.**, Yan, J., Asiedu, M. N., Valdez, A., Ghosh, S., Dussor, G., Mogil, J. S., Sonenberg, N. & Price, T. J. (2013 in press) mTORC1 inhibition induces sensory neuron hyperexcitability and allodynia via IRS1-dependent feedback activation of ERK. *Pain* * **co-first author**
- Sorge, R. E.**, LaCroix-Fralish, M. L., Tuttle, A. H., Khoutorsky, A., Sotocinal, S. G., Austin, J. S., Melmed, K., Wood, J. N., Shi, Y., Naoumova, A. & Mogil, J. S. (2013, in press). The yin and yang of pain: variability in formalin test nociception and morphine analgesia produced by the yin yang 1 transcription factor gene. *Genes, Brain and Behavior*.
- Khoutorsky, A., Yanagiya, A., Gkogkas, C., Fabian, M. R., Prager-Khoutorsky, M., Gamache, K., Bouthiette, F., Parysan, A., **Sorge, R. E.**, Mogil, J. S., Nader, K., Lacaille, J. C. & Sonenberg, N. (2013) Control of synaptic plasticity and memory via suppression of poly(A)-binding protein. *Neuron*, 78: 298-311.
- Tsao, D., Wieskopf, J. S., Rashid, N., **Sorge, R. E.**, Redler, R. L., Segall, S. K., Mogil, J. S., Maixner, W., Dokholyan, N. V. & Diatchenko, L. (2012). Serotonin-induced hypersensitivity via inhibition of catechol o-methyltransferase activity. *Molecular Pain*, 8; 25.
- Malfait, A. M., Seymour, A. B., Gao, F., Tortorella, M. D., Graverand-Gastineau, M. P., Wood, L. S., Doherty, M., Doherty, S., Zhang, W., Arden, N. K., Vaughn, F. L., Leaverton, P. E., Spector, T. D., Hart, D. J., Maciewicz, R. A., Muir, K. R., Das, R., **Sorge, R. E.**, Sotocinal, S. G., Schorscher-Petcu, A., Valdes, A. M. & Mogil, J. S. (2012) A role for PACE4 in osteoarthritis pain: Evidence from human genetic association and null mutant phenotype. *Annals of the Rheumatic Diseases*, 71; 1042-1048.
- Sorge, R. E.**, Trang, T., Dorfman, R., Smith, S. B., Beggs, S., Ritchie, J., Austin, J-S., Zaykin, D. V., Vander Meulen, H., Costigan, M., Herbert, T. A., Yarkoni-Abitbul, M., Tichauer, D., Livneh, J., Gershon, E., Zheng, M., Tan, K., Johns, S. L., Slade, G. D., Jordan, J., Woolf, C. J., Peltz, G., Maixner, W., Diatchenko, L., Seltzer, Z., Salter, M. W., & Mogil, J. S. (2012). Genetically determined P2X7 receptor pore formation regulates variability in chronic pain sensitivity. *Nature Medicine*, 18; 595-599.
- *****Selected by the National Human Genome Research Institute's (NHGRI) Genomic Advances of the Month**
- Sorge, R. E.**, LaCroix-Fralish, M. L., Bailey, A. L., Tuttle, A. H., Sotocinal, S. G., Austin, J-S., Ritchie, J., Chanda, M. L., Graham, A. C., Topham, L., Beggs, S., Salter, M. W., & Mogil, J. S. (2011). Spinal cord toll-like receptor 4 mediates chronic inflammatory and neuropathic hypersensitivity in males but not females. *J Neurosci*, 31: 15450-4.
<http://www.jneurosci.org/content/31/43/15450.long>
- Mogil, J. S., **Sorge, R. E.**, LaCroix-Fralish, M. L., Smith, S. B., Fortin, A, M Sotocinal, S. G., Ritchie, J., Austin, J-S., Schorscher-Petcu, A., Melmed,

- K., Bittong, R. A., Mokris, B., Neubert, J. K., Campbell, C. M., Edwards, R. R., Campbell, J. N., Crawley, J. N., Lariviere, W. R., Sternberg, W. F., Balaban, C. D., Belfer, I., & Fillingim, R. B. (2011). Pain sensitivity and vasopressin analgesia in mice and humans is mediated by a gene-environment interaction involving the AVPR1A gene and acute stress. *Nature Neuroscience*, *14*:1569-73.
<http://www.nature.com/neuro/journal/v14/n12/full/nn.2941.html>
- Matsumiya, L., ***Sorge, R. E.**, Sotocinal, S. G., Tabaka, J., Zaloum, A., King, O. D., & Mogil, J. S. (2012). A re-evaluation of the efficacy of postoperative analgesics in the laboratory mouse based on the mouse grimace scale. *JAALAS*, *51*: 42-49. ***co-first author.**
- Sotocinal, S. G., **Sorge, R. E.**, Zaloum, A., Tuttle, A. H., Martin, L. J., Wieskopf, J. S., Mapplebeck, J. C. S., Wei, P., Zhan, S., Zhang, S., McDougall, J. J., King, O. D., & Mogil, J. S. (2011). The rat grimace scale: a partially automated method for quantifying pain in the laboratory rat via facial expressions. *Mol Pain*, *7*: 55.
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3163602/?tool=pubmed>
- Langford, D.J., Bailey, A.L., Chanda, M.L., Clarke, S.E., Drummond, T.E., Echols, S., Glick, S., Ingrao, J., Klassen-Ross, T., LaCroix-Fralish, M.L., Matsumiya, L., **Sorge, R.E.**, Sotocinal, S.G., Tabaka, J.M., Wong, D., van den Maagdenberg, A.M.J.M., Ferrari, M.D., Craig, K.D., and Mogil, J.S. (2010). Coding of facial expressions of pain in the laboratory mouse. *Nature Meth*, *7*:447-449.
<http://www.nature.com/nmeth/journal/v7/n6/full/nmeth.1455.html>
- Schorscher-Petcu, A., Sotocinal, S. G., Ciura, S. Dupre, A., Ritchie, J., **Sorge, R. E.**, Crawley, J. N., Hu, S-B., Nishimori, K., Young, L. J., Tribollet, R., Quirion, R. & Mogil, J. S. (2010). Oxytocin-induced analgesia and scratching are mediated by the vasopressin-1A receptor in the mouse. *J Neurosci*, *30*: 8274-8284.
<http://www.jneurosci.org/content/30/24/8274.long>
- Sorge, R. E.**, Pierre, V. P. & Clarke, P. B. S. (2009). Facilitation of intravenous nicotine self-administration in rats by motivationally neutral sensory cues. *Psychopharmacology*, *207*: 191-200.
<http://www.nature.com/nmeth/journal/v7/n6/full/nmeth.1455.html>
- Sorge, R. E.** & Clarke, P. B. S. (2009). Rats self-administer intravenous nicotine delivered in a novel smoking-relevant procedure: effects of dopamine antagonists. *J Pharm Exp Ther*, *330*: 633-640.
<http://jpet.aspetjournals.org/content/330/2/633.long>
- Leri, F., **Sorge, R. E.**, Cummins, E., Woehrling, D., Pfau, J. G., & Stewart, J. (2007). High dose methadone maintenance in rats: effects on cocaine self-administration and general motivation. *Neuropsychopharmacology*, *32*: 2290-2300. <http://www.nature.com/npp/journal/v32/n11/full/1301357a.html>
- Hood, S., **Sorge, R. E.**, & Stewart, J. (2007). Chronic buprenorphine reduces the response to sucrose-associated cues in non food-deprived rats. *Pharmacology, Biochemistry & Behavior*, *86*: 566-575.
<http://www.sciencedirect.com/science/article/pii/S0091305707000457>
- Caruana, D. A., **Sorge, R. E.**, Stewart, J., & Chapman, C. A. (2006). Dopamine has bidirectional effects on synaptic responses to cortical inputs in layer II

- of the lateral entorhinal cortex. *Journal of Neurophysiology*, 96: 3006-3015. <http://jn.physiology.org/content/96/6/3006.long>
- Sorge, R. E., & Stewart, J.** (2006). The effects of chronic buprenorphine on intake of heroin and cocaine in rats and its effects on nucleus accumbens dopamine levels during self-administration. *Psychopharmacology*, 188: 28-41. <http://www.springerlink.com/content/b487u7t4v4080031/>
- Sorge, R. E., & Stewart, J.** (2006). The effects of long-term chronic buprenorphine treatment on the locomotor and nucleus accumbens dopamine response to acute heroin and cocaine in rats. *Pharmacology, Biochemistry & Behavior*, 84: 300-305. <http://www.sciencedirect.com/science/article/pii/S0091305706001481>
- Sorge, R. E., & Stewart, J.** (2005). The contribution of drug history and time since termination of drug taking on vulnerability to stress-induced cocaine seeking in rats. *Psychopharmacology*, 183, 210-217. <http://www.springerlink.com/content/p144jt0376561011/>
- Sorge, R. E., Rajabi, H. & Stewart, J.** (2005). Rats maintained chronically on buprenorphine show reduced heroin and cocaine seeking in tests of extinction and drug-induced reinstatement. *Neuropsychopharmacology*, 30, 1681-1692. <http://www.nature.com/npp/journal/v30/n9/full/1300712a.html>
- Parker, L. A., Burton, P., **Sorge, R. E.** & Yakiwchuk, C. (2004). Effect of low doses of Δ^9 -tetrahydrocannabinol and cannabidiol on the extinction of cocaine- and amphetamine-induced conditioned place preference learning. *Psychopharmacology*, 175, 360-366. <http://www.springerlink.com/content/grxq6rjtmx217lhe/>
- Leri, F., Tremblay, A., **Sorge, R. E.** and Stewart, J. (2004). Effects of methadone maintenance on heroin-, cocaine- and stress-induced relapse in a rodent model of poly-drug use. *Neuropsychopharmacology*, 29, 1312-1320. <http://www.nature.com/npp/journal/v29/n7/full/1300435a.html>
- Capriles, N., Rodaros, D., **Sorge, R. E.** & Stewart, J. (2003). A role for the prefrontal cortex in stress- and cocaine-induced reinstatement of cocaine seeking in rats. *Psychopharmacology*, 168, 66-74. <http://www.springerlink.com/content/pg5xk7bx14gmn6jk/>
- Sorge, R. E., Fudge, M. A. & Parker, L. A.** (2002). Effect of sodium deprivation on morphine- and lithium-induced conditioned salt avoidance and taste reactivity. *Psychopharmacology*, 160, 84-91. <http://www.springerlink.com/content/pw0v23becmbbxqqb/>
- Galef, B. G., Jr. & **Sorge, R. E.** (2000). Use of PVC conduits by rats of various strains and ages housed singly and in pairs. *Journal of Applied Animal Welfare Science*, 3(4), 279-292. http://www.tandfonline.com/doi/abs/10.1207/S15327604JAWS0304_1

BOOK CHAPTERS

- Sorge, R. E., & Clarke, P. B. S.** (2010) Self-Administration: Nicotine, chapter in *Animal Models of Drug Addiction*, ed. M.C. Olmstead, Humana Press. in press.

SUBMITTED MANUSCRIPTS

Sorge, R. E., Martin, L. J., Isbester, K. A., Sotocinal, S. G., McPhail, M., Delaney, A., Wigerblad, G., Quinn, T., Frasnelli, J., Svensson, C.I., Sternberg, W. F. & Mogil, J. S. *Stress-induced analgesia in the rodent from olfactory exposure to human males*. Manuscript submitted for publication.

Wieskopf, J. S., **Sorge, R. E.**, Limapichat, W., All-Quazzaz, M., Smith, S. B., Austin, J. S., Slepian, P. M., Clarke, S., Drenan, R., McIntosh, J. M., Maskos, U., Changeux, J. P., Aasvang, E., Dai, F., Lai, W., Srinivasan, R., Mathur, J., Devor, M., Maixner, W., Diatchenko, L., Belfer, I., Dimaj. I., Lester, H. A., Patapoutian, A. & Mogil, J. S. *The nicotinic alpha6 subunit gene determines variability in chronic pain sensitivity via cross-inhibition with p2x2/3 receptors*. Manuscript submitted for publication.

SYMPOSIA ORGANIZATION

Sorge, R. E. (Chair/Discussant), Barrett, S. P., Samaha, A. -N., Kenny, P. J., Palmatier, M. I. & Brunzell, D. H. (2009, April). The Next Generation of Investigators: Novel Approaches to an Old Problem. Symposium to be presented at the joint meeting of the Society for Research on Nicotine and Tobacco and the Society for Research on Nicotine and Tobacco – Europe, Dublin, Ireland.

PRESENTATION RECORD (Invited Oral)

Sorge, R. E. (2012, August). *Sex differences in spinal mediation of pain: Beyond TLR4*. Research presented at International Association for the Study of Pain Special Interest Group on Sex, Gender and Pain meeting, Milan, Italy.

Sorge, R. E. (2008, November). *Slow/low nicotine self-administration in rats: a better model of nicotine's reinforcing effects*. Research presented at Canadian Tobacco Control Research Initiative Interdisciplinary Capacity Enhancement team meeting, Montreal, QC, Canada.

Sorge, R. E. (2008, April). *From heroin and cocaine to nicotine: A tour of addictions*. Paper presented at the Motivation in the 21st century: brain mechanisms of learning and behavioural change. A symposium in honour of Dr. Jane Stewart. Montreal, QC, Canada.

Sorge, R. E. & Clarke, P. B. S. (2007, July). *Re-examining the standard animal model of tobacco dependence*. Research presented at Canadian Tobacco Control Research Initiative Interdisciplinary Capacity Enhancement team meeting, Toronto, ON, Canada.

Sorge, R. E. & Clarke, P. B. S. (2007, May). *Is the standard animal model of tobacco dependence valid?* Paper presented at the annual Pharmacology Research Day, Montreal, QC, Canada.

Sorge, R. E., Stewart, J. & Clarke, P. B. S (2007, February). *Intravenous nicotine self-administration in rats – what does it model?* Paper presented at the 13th annual meeting of the Society for Research on Nicotine and Tobacco, Austin, TX, USA.

Sorge, R. E. & Clarke, P. B. S. (2006, July). *Nicotine self-administration in rats: exploring the dogma*. Research presented at Canadian Tobacco Control

- Research Initiative Interdisciplinary Capacity Enhancement team meeting, Montreal, QC, Canada.
- Sorge, R. E.** & Stewart, J. (2004, March). *The Effects of Buprenorphine on Administration of Cocaine and Heroin*. Invited lecture at the Center for Studies in Behavioral Neurobiology, Montreal, QC, Canada.
- Sorge, R. E.**, Paolone, G. & Stewart, J. (2003, June). *The Effects of Buprenorphine on the Administration of Cocaine and Heroin*. Paper presented at the 13th Annual Meeting of the Canadian Society for Brain, Behaviour and Cognitive Science, Hamilton, ON, Canada.

PRESENTATION RECORD (Oral)

- Sorge, R. E.** & Clarke, P. B. S. (2007, October). *A differential role for dopamine in nicotine self-administration that is dependent on infusions speed*. Paper presented at the 9th annual meeting of Society for Research on Nicotine and Tobacco Europe, Madrid, Spain.
- Sorge, R. E.**, Rajabi, H., & Stewart, J. (2005, July). *Buprenorphine suppresses cocaine self-administration due to change in incentive value of the drug*. Paper presented at the 15th annual meeting of the Canadian Society for Brain, Behaviour and Cognitive Science, Montreal, QC, Canada.
- Sorge, R. E.** & Parker, L. A. (2001, March). *Delta-9-THC Interferes with the Establishment of Place Conditioning*. Paper presented at the 8th Annual Comparative Cognition Conference, Melbourne, FL, USA.
- Sorge, R. E.** & Galef Jr., B. G. (2000, April). *The Use of PVC Conduits by Rats of Different Ages and Strains*. Paper presented at the Undergraduate Thesis Conference, Guelph, ON, Canada.

PRESENTATION RECORD (Posters)

- Mogil, J. S., **Sorge, R. E.**, Martin, L. J., Isbester, K. A. & Sternberg, W. F. (2012, October). *Androstadienone-related stress-induced analgesia in the mouse via exposure to males*. Paper presented at the 42nd annual meeting for the Society for Neuroscience, New Orleans, LA, USA.
- Sorge, R. E.**, Labbe, K., Saleh, M. & Mogil, J. S. (2012, October). *Cellular inhibitors of apoptosis proteins (cIAPs) play a role in sensitivity to noxious stimulation in mice in the absence of inflammation*. Paper presented at the 42nd annual meeting for the Society for Neuroscience, New Orleans, LA, USA.
- Khoutorsky, A., Gkogkas, C., **Sorge, R. E.**, Mogil, J. S., Nader, K., Lacaille, J. C. & Sonenberg, N. (2012, October). *Control of synaptic plasticity and memory via suppression of poly(A)-binding protein*. Paper presented at the 42nd annual meeting for the Society for Neuroscience, New Orleans, LA, USA.
- Sorge, R. E.**, Martin, L. J., Isbester, K. A., Chabot-Dore, A.-J., Stone, L. S. & Mogil, J. S. (2012, August). *MACHO: Male-induced analgesia by chemosensory olfaction*. Paper presented at the 14th World Congress on Pain, Milan, Italy.
- Sorge, R. E.**, Khoutorsky, A., Sonenberg, N. & Mogil, J. S. (2011, November). *Alterations in translational regulation play a key role in thermal pain*

- sensitivity in mice*. Paper presented at the 41st annual meeting for the Society for Neuroscience, Washington DC, USA.
- Martin, L. J., **Sorge, R. E.**, Austin, J. S., Smith, S. B., Maixner, W., Diatchenko, L., & Mogil, J. S. (2011, November). *Modulation of nociceptive sensitivity in inflammatory and neuropathic pain by the epidermal growth factor receptor*. Paper presented at the 41st annual meeting for the Society for Neuroscience, Washington DC, USA.
- Tuttle, A. H., Sotocinal, S. G., **Sorge, R. E.**, Zaloum, A., Martin, L. J., Wieskopf, J. S., Mapplebeck, J. C. S., Wei, P., Zhan, S., Zhang, S., McDougall, J. J., King, O. D., & Mogil, J. S. (2011, November). *The rat grimace scale: a partially automated method for quantifying pain in the laboratory rat via facial expressions*. Paper presented at the 41st annual meeting for the Society for Neuroscience, Washington DC, USA.
- Weiskopf, J. S., Austin, J. S., Slepian, P., **Sorge, R. E.**, Su, A., Mathur, J., Uzzell, V., Janes, J., McIntosh, J., Maskos, U., Changeux, J. P., Devor, M., Lester, H., Belfer, I., Diatchenko, L., Patapoutian, A., & Mogil, J. S. (2011, November). *The role of chrna6 in chronic pain*. Paper presented at the 41st annual meeting for the Society for Neuroscience, Washington DC, USA.
- Mapplebeck, J. C. S., Tabaka, J. M., Sotocinal, S. G., **Sorge, R. E.**, & Mogil, J. S. (2011, November). *Dissociation of facial expression-based spontaneous pain quantification from other measures of pain in mice*. Paper presented at the 41st annual meeting for the Society for Neuroscience, Washington DC, USA.
- Sorge, R. E.**, Khoutorsky, A., Sonenberg, N. & Mogil, J. S. (2011, June). *Alterations in translational regulation play a key role in thermal pain sensitivity in mice*. Paper presented at the Joint Annual Scientific Meeting of the Canadian Pain Society and the British Pain Society, Edinburgh, Scotland, UK.
- Sorge, R. E.**, LaCroix-Fralish, M. L., Tuttle, A. H., Sotocinal, S., Topham, L., Beggs, S., Trang, T., Salter, M. W., & Mogil, J. S. (2011, January). *Sex differences in spinal TLR4-mediation of neuropathic pain in mice*. Paper presented at the 15th annual McGill Pain Day, Montreal, QC, Canada.
- Malfait, A. M., Seymour, A., Valdes, A. M., Das, R., Tortorella, M., Arden, N. K., Vaughn, F. L., Leaverton, P. E., Hart, D. J., **Sorge, R. E.**, Sotocinal, S. G., Schorsch-Petcu, A., & Mogil, J. S. (2010, November). *A role for PACE4 in pain in mice and humans: pain phenotype of a PACE4 null mutant and genetic association with knee osteoarthritis pain*. Paper presented at the 74th annual meeting of the American College of Rheumatology, Atlanta, GA, USA.
- Sorge, R. E.**, LaCroix-Fralish, M. L., Bailey, A. L., Sotocinal, S. G., Ritchie, J., Austin, J.S., Liu, H., Labialle, S., Yang, L., Shi, Y., Naumova, A. K., & Mogil, J. S. (2010, November). *The Yin and Yang of pain: fine mapping of the Yin-Yang 1 transcription factor gene's effect on formalin test pain behaviour and morphine analgesia*. Paper presented at the 40th annual meeting of the Society for Neuroscience, San Diego, CA, USA
- Sorge, R. E.**, LaCroix-Fralish, M. L., Sotocinal, S. G., Ritchie, J., Austin, J-S., Liu, H., Labialle, S., Yang, L., Shi, Y., Naumova, A. K. & Mogil, J. S. (2010, September). *The Yin and Yang of pain: fine mapping of the Yin-Yang 1*

- transcription factor gene's effect on formalin test pain behaviour and morphine analgesia*. Paper presented at the 13th world congress of the International Association for the Study of Pain, Montreal, QC, Canada.
- Mogil, J. S., **Sorge, R. E.**, Beggs, S., LaCroix-Fralish, M. L., Sotocinal, S. G., Trang, T. & Salter, M. W. (2010, September). *Sex differences in the reduced allodynia displayed by C3H/HeJ mice: a tlr4-independent pathway in female mice?* Paper presented at the 13th world congress of the International Association for the Study of Pain, Montreal, QC, Canada.
- Sorge, R. E.** & Clarke, P. B. S. (2010, February). *Self-administration of the tobacco constituents norharman and nicotine alone and in combination*. Paper presented at the 16th annual meeting of the Society for Research on Nicotine and Tobacco, Baltimore, MD, USA.
- Sorge, R. E.** & Clarke, P. B. S. (2009, October). *Differential effects of chronic versus acute administration of monoamine oxidase inhibitors on nicotine self-administration in rats*. Paper presented at the 39th annual meeting of the Society for Neuroscience, Chicago, USA
- Sorge, R. E.** & Clarke, P. B. S. (2008, February). *Dopamine D2, but not D1, receptors contribute to differences in our new model of nicotine self-administration in rats*. Paper presented at the 14th annual meeting of the Society for Research on Nicotine and Tobacco, Portland, OR, USA.
- Baharnouri, G, **Sorge, R. E.** & Clarke, P. B. S. (2008, February). *Limited effectiveness of monoamine oxidase inhibitors on established nicotine self-administration in rats*. Paper presented at the 14th annual meeting of the Society for Research on Nicotine and Tobacco, Portland, OR, USA.
- Sorge, R. E.**, & Clarke, P. B. S. (2007, November). *Slow/low intravenous infusions of nicotine in rats: a better model of smoking?* Poster presented at the 37th annual meeting of the Society for Neuroscience, San Diego, CA, USA.
- Chehayeb, D., **Sorge, R. E.**, Franklin, K. B., & Clarke, P. B. S. (2007, November). *Ultrasonic vocalizations and psychomotor stimulant reward in adult rats*. Poster presented at the 37th annual meeting of the Society for Neuroscience, San Diego, CA, USA.
- Sorge, R. E.**, Stewart, J. & Clarke, P. B. S. (2006, November). *Effect of infusion duration on intake during nicotine self-administration in rats: rapid infusions are not necessary*. Poster presented at the 36th annual meeting of the Society for Neuroscience, Atlanta, GA, USA
- Sorge, R. E.**, Rajabi, H. & Stewart, J. (2005, November). *Chronic buprenorphine suppresses cocaine self-administration on both fixed ratio and progressive ratio schedules of reinforcement*. Poster presented at the 35th annual meeting of the Society for Neuroscience, Washington, DC, USA.
- Stewart, J., **Sorge, R. E.**, Rajabi, H. & Klein, H. (2005, November). *The effects of chronic buprenorphine in rats on responses to acute injections of cocaine and heroin across time*. Poster presented at the 35th annual meeting of the Society for Neuroscience, Washington, DC, USA.
- Hood, S. J., **Sorge, R. E.** & Stewart, J. (2005, November). *Chronic buprenorphine suppresses sucrose intake on an FR1 schedule, but does not affect responding on FR5 or progressive ratio schedule*. Poster

- presented at the 35th annual meeting of the Society for Neuroscience, Washington, DC, USA.
- Sorge, R. E., Hood, S., & Stewart, J.** (2005, July). *Chronic buprenorphine reduces both heroin- and cocaine-seeking in tests of extinction and drug-induced reinstatement, but not following stress.* Poster session presented at the 28th annual meeting of the Canadian College for Neuropsychopharmacology, St. John's, NF, Canada.
- Hood, S., **Sorge, R. E., & Stewart, J.** (2005, July). *Buprenorphine treatment alters sucrose reinforcement.* Poster session presented at the 15th annual meeting of the Canadian Society for Brain Behaviour and Cognitive Science, Montreal, QC, Canada.
- Sorge, R. E., Rajabi, H. & Stewart, J.** (2004, November). *Methadone or buprenorphine maintenance attenuates the heroin-induced rise in nucleus accumbens dopamine, but potentiates the cocaine-induced rise.* Poster session presented at the 7th annual Chemistry and Biochemistry Graduate Research Conference, Montreal, QC, Canada.
- Sorge, R. E., Rajabi, H. & Stewart, J.** (2004, October). *Maintenance on methadone or buprenorphine attenuates the heroin-induced rise in nucleus accumbens dopamine, but potentiates the cocaine-induced rise.* Poster session presented at the 34th annual meeting of the Society for Neuroscience, San Diego, CA, USA.
- Caruana, D. A., **Sorge, R. E., Hanck, J. J., Harbour, V. L., Stewart, J., and Chapman, C. A.** (2004, October) *Dopaminergic modulation of glutamate-mediated synaptic transmission in layer II of the lateral entorhinal cortex in vivo.* Poster session presented at the 34th annual meeting of the Society for Neuroscience, San Diego, CA, USA.
- Sorge, R. E., Rajabi, H., Campbell, L., Quinlan-Davidson, M. & Stewart, J.** (2004, July). *Buprenorphine, a mixed opioid agonist-antagonist, attenuates the rise in nucleus accumbens dopamine following heroin, but potentiates the rise in dopamine following cocaine.* Poster session presented at the 27th Annual Meeting of the Canadian College for Neuropsychopharmacology, Kingston, ON, Canada.
- Sorge, R. E., Paolone, G., Zannetos, T. & Stewart, J.** (2004, February). *The Opioid Agonist-Antagonist, Buprenorphine, Preferentially Suppresses Cocaine Self-Administration in Rats Trained to Self-Administer Both Heroin and Cocaine.* Poster session presented at the Concordia University Research Day, Montreal, QC, Canada.
- Sorge, R. E., Campbell, L., Quinlan-Davidson, M., Rajabi, H. & Stewart, J.** (2004, February). *The Effects of Buprenorphine on Extracellular Levels of Dopamine in the Nucleus Accumbens in Response to Cocaine and Heroin.* Poster session presented at the Concordia University Research Day, Montreal, QC, Canada.
- Sorge, R. E., Leri, F., Paolone, G., Tremblay, A., Jenkins, P., Rajabi, H. & Stewart, J.** (2003, October). *The Effects of Buprenorphine and Methadone on Reinstatement and Self-Administration of Cocaine and Heroin.* Poster session presented at the 20th Anniversary of the Center for Studies in Behavioral Neurobiology, Montreal, QC, Canada.

- Sorge, R. E.**, Jenkins, P. Paolone, G. & Stewart, J. (2003, November). *Effect of Amount of Exposure to Cocaine Self-Administration and Time Since Termination of Drug Taking on Relapse to Drug Seeking Assessed in Extinction and Following Acute Footshock Stress*. Poster session presented at the 33rd Annual Conference for the Society for Neuroscience, New Orleans, LA, USA.
- Stewart, J., **Sorge, R. E.**, Leri, F. & Paolone G. (2003, November). *The Opioid Agonist-Antagonist, Buprenorphine, Preferentially Suppresses Cocaine Self-Administration Over Heroin in Rats Trained to Self-Administer Both Drugs*. Poster session presented at the 33rd Annual Conference for the Society for Neuroscience, New Orleans, LA, USA.
- Leri, F., Tremblay, A., **Sorge, R. E.**, Paolone, G., Goddard, B. & Stewart, J. (2003, November). *Effects of Methadone Maintenance on Cocaine-Motivated Behaviors*. Poster session presented at the 33rd Annual Conference for the Society for Neuroscience, New Orleans, LA, USA
- Sorge, R. E.** & Parker, L. A. (2001, November). *Delta-9-Tetrahydrocannabinol Interferes with Learning in the Place Conditioning Paradigm*. Poster session presented at the 31st Annual Conference for the Society for Neuroscience, San Diego, CA, USA.

COMPETITIVE AWARDS, GRANTS AND FELLOWSHIPS:

- | | |
|--------------------------|--|
| Young Investigator Award | Sex, Gender and Pain Special Interest Group, IASP (First Awardee), 2012 |
| Trainee Travel Award | International Association for the Study of Pain, 2012 |
| AECRP Fellowship | Alan Edwards Center for Research on Pain - Astrazeneca Postdoctoral Fellowships in Pain Research, 2009-2011 |
| CTCRI Operating Grant | Canadian Tobacco Control Research Initiative student research grant, 2008-2009 (Principal Applicant), \$9000 |
| CTCRI Travel Grant | Canadian Tobacco Control Research Initiative research travel grant, 2007 |
| NSERC PDF | National Sciences and Engineering Research Council of Canada Post-doctoral Fellowship, 2007-2009 |
| Ph.D. Thesis Award | Canadian Psychological Association, 2007 |
| SFN Travel Award | SFN Chapters Graduate Student Travel Award, 2005 |
| Poster Award | Best Poster Presentation, CBGRC, Montreal, 2004 |
| NSERC PGS-B | National Sciences and Engineering Research Council of Canada Scholarship, 2003-2005 |
| Master's Thesis Award | Canadian Psychological Association, 2002 |

PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS:

- International Association for the Study of Pain (IASP)
- American Pain Society (APS)
- Canadian Pain Society (CPS)
- Society for Neuroscience (SfN)
- American Association for Laboratory Animal Science (AALAS)

UAB Campus Affiliations

- Comprehensive Neuroscience Center (CNC)
- Graduate Biomedical Sciences
- Behavioral Neuroscience Core Faculty (Psychology)
- Center for Palliative and Supportive Care

TECHNICAL EXPERIENCE AND EXPERTISE:

- Intrathecal, intraplantar, intraperitoneal, intramuscular, subcutaneous injections
- Pain tests (von Frey, Hargreaves', tail withdrawal, hotplate, formalin, acetic acid, CFA, tail clip)
- Neuropathic pain surgery and testing (CCI, SNI)
- PCR – DNA extraction to gel reading
- Intravenous self-administration of drugs and sucrose
- *In vivo* microdialysis and high performance liquid chromatography (HPLC-EC)
- Conditioned place preference and aversion
- Enzyme-linked immunosorbent assay (ELISA)
- Intracranial self-stimulation
- Intracranial/intracerebroventricular microinjection
- Immunocytochemistry/immunohistochemistry
- Autoradiography
- Perfusion and brain sectioning (cryostat and vibratome)
- Locomotor behaviour monitoring
- Microscope techniques (imaging, cell counts)
- Stereotaxic surgery protocols (various)

TEACHING

PY 253

Brain, Mind and Behavior, course instructor, Spring 2013

PY 431

Dynamics of Pain, course instructor, Spring 2013

PY 453/753

Advanced Behavioral Neuroscience – 10 hours Learning – history, theories and mechanisms, Fall 2012.

- Pharmacology 562** Three lectures (Drugs of abuse, tolerance, sensitization, pharmacotherapy), upper year undergraduate/graduate student level, McGill University, Department of Pharmacology and Therapeutics, Fall 2008
- Pharmacology 562** Three lectures (Drugs of abuse, tolerance, sensitization, pharmacotherapy), upper year undergraduate/graduate student level, McGill University, Department of Pharmacology and Therapeutics, Fall 2007
- Pharmacology 562** One lecture (Pharmacotherapy), upper year undergraduate/graduate student level, McGill University, Department of Pharmacology and Therapeutics, Fall 2006
- Small group leader** Two sessions per year (2006-2008, PHARM 562) with interactive discussion and student presentations. Responsible for organization of topics.

ADMINISTRATIVE

- Junior Councilor Canadian College for Neuropsychopharmacology, 2008-2010
- Post-doctoral fellow Rep. McGill University, Department of Pharmacology and Therapeutics, 2006-2008
- Website Committee McGill University, Department of Pharmacology and Therapeutics, 2007
- Ad-hoc Reviewer Pain, BMC Cancer, Psychopharmacology, Pharmacology Biochemistry and Behaviour, Neuroscience

ADDITIONAL INFORMATION

Citizenship: Canadian

Fluency: English, basic French