

Curriculum Vitae

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Education:

B.A., Hamline University, Psychology, 1994
M.S., University of Wisconsin-Milwaukee, Behavioral/Systems Neuroscience, 1999
Ph.D., University of Wisconsin-Milwaukee, Behavioral/Systems Neuroscience, 2001

Professional Experience:

Rosalind Franklin University of Medicine and Science, Department of Cellular and Molecular Pharmacology, Research Assistant Professor, Appointed: 2006
2005-2006; Rosalind Franklin University of Medicine and Science, Department of Cellular and Molecular Pharmacology, Postdoctoral Fellow
2001-2005; Medical College of Wisconsin, Department of Pharmacology and Toxicology, Postdoctoral Fellow
2001; Adjunct Faculty Member, University of Wisconsin-Milwaukee, Psychology
1999-2001; 2004, Adjunct Faculty Member, Carroll College, Psychology
1998-2000, Graduate Research Fellow, University of Wisconsin-Milwaukee, Letters and Science, Milwaukee Area Neuroscience Group, Behavioral/Systems Neuroscience
1996-2001, Graduate Student, University of Wisconsin-Milwaukee, Letters and Science, Milwaukee Area Neuroscience Group, Behavioral/Systems Neuroscience

Funding Received:

Ruth L. Kirschstein National Research Service Award, \$145,176, from Aug 1, 2003 to Dec 1, 2005
Ruth L. Kirschstein National Research Service Award, \$79,863, from Jun 1, 1998 to May 31, 2001
Grants-in-Aid of Research Award, \$580, from Jan 24, 1997 to Dec 31, 1997

Publications:

24. Rademacher DJ, Hillard CJ. Interactions between endocannabinoids and stress-induced decreased sensitivity to natural reward. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*. In press.
23. Rademacher DJ, Kovacs B, Shen F, Napier TC, Meredith GE. The neural substrates of amphetamine conditioned place preference: implications for the formation of conditioned stimulus-reward associations. *European Journal of Neuroscience*. 24(7): 2089-2097, Oct 2006.
22. Rademacher DJ, Patel S, Ho WS, Savoie AM, Rusch NJ, Gauthier KM, Hillard CJ. U-466119 but not serotonin increases endocannabinoid content in the middle cerebral artery: evidence for

- functional relevance. *American Journal of Physiology: Heart and Circulatory Physiology*. 288(6): H2694-H2701, June 2005
21. Hill MN, Patel S, Carrier EJ, Rademacher DJ, Ormerod BK, Hillard CJ, Gorzalka BB. Downregulation of endocannabinoid signaling in the hippocampus following chronic unpredictable stress. *Neuropsychopharmacology*. 30(3): 508-515, Mar 2005
 20. Patel S, Roelke CT, Rademacher DJ, Hillard CJ. Inhibition of restraint stress-induced neural and behavioural activation by endogenous cannabinoid signalling. *European Journal of Neuroscience*. 21(4): 1057-1069, Feb 2005.
 19. Patel S, Carrier EJ, Ho VS, Rademacher DJ, Cunningham S, Reddy DS, Falck JR, Cravatt BF, Hillard CJ. The postmortal accumulation of brain *N*-arachidonylethanolamine (anandamide) is dependent upon fatty acid amide hydrolase activity. *Journal of Lipid Research*. 46(2): 342-49, Feb 2005
 18. Rademacher DJ, Weber DN, Hillard CJ. Waterborne lead exposure affects brain endocannabinoid content in male but not female fathead minnows (*Pimephales promelas*). *Neurotoxicology*. 26(1): 9-15, Jan 2005
 17. Muthian S, Rademacher DJ, Roelke CT, Gross GJ, Hillard CJ. Anandamide content is increased and CB₁ cannabinoid receptor blockade is protective during transient, focal cerebral ischemia. *Neuroscience*. 129 (3): 743-50, Dec 2004
 16. Patel S, Roelke CT, Rademacher DJ, Cullinan WE, Hillard CJ. Endocannabinoid signaling negatively modulates stress-induced activation of the hypothalamic-pituitary-adrenal axis. *Endocrinology*. 145 (12): 5431-38, Dec 2004
 15. Rademacher DJ, Kearns CS, Carrier EJ, Patel S, Delgado MA, Barkmeier A, Klick DE, Breese NM, Pfister SL, Nithipatikom K, Campbell WB, Hillard CJ. Production of hydroxyeicosatetraenoic acids and prostaglandins by a novel rat microglial cell line. *Journal of Neuroimmunology*. 149(1-2): 130-41, Apr 2004
 14. Seagard JL, Dean C, Patel S, Rademacher DJ, Hopp FA, Schmelting WT, Hillard CJ. Anandamide content and interaction of endocannabinoid/GABA modulatory effects in the NTS on baroreflex-evoked sympathoinhibition. *American Journal of Physiology: Heart and Circulatory Physiology*. 286(3): H992-1000, Mar 2004
 13. Patel S, Rademacher DJ, Hillard CJ. Differential regulation of the endocannabinoids anandamide and 2-arachidonylglycerol within the limbic forebrain by dopamine receptor activity. *The Journal of Pharmacology and Experimental Therapeutics*. 306(3): 880-8, Sep 2003
 12. Patel S, Wohlfeil ER, Rademacher DJ, Carrier EJ, Perry LJ, Kundu A, Falck JR, Nithipatikom K, Campbell WB, Hillard CJ. The general anesthetic propofol increases brain *N*-arachidonylethanolamine (anandamide) content and inhibits fatty acid amide hydrolase. *British Journal of Pharmacology*. 139(5): 1005-13, Jul 2003
 11. Rademacher DJ, Patel S, Hopp FA, Dean C, Hillard CJ, Seagard JL. Microinjection of a cannabinoid receptor antagonist into the NTS increases baroreflex duration in dogs. *American Journal of Physiology. Heart and Circulatory Physiology*. 284(5): H1570-6, May 2003
 10. Rademacher DJ, Steinpreis RE, Weber DN. Effects of dietary lead and/or dimercaptosuccinic acid exposure on regional serotonin and serotonin metabolite content in rainbow trout (*Oncorhynchus mykiss*). *Neuroscience Letters*. 339(2): 156-60, Mar 2003
 9. Rademacher D, Schuyler A, Kruschel CK, Steinpreis RE. Effects of cocaine and putative atypical antipsychotics on rat social behavior: an ethopharmacological study. *Pharmacology, Biochemistry, and Behavior*. 73(4): 769-78, Nov 2002

8. Rademacher DJ, Steinpreis RE. Effects of the selective mu(1)-opioid receptor antagonist, naloxonazine, on cocaine-induced conditioned place preference and locomotor behavior in rats. *Neuroscience Letters*. 332(3): 159-62, Nov 2002
7. Rademacher DJ, Anderson AP, Steinpreis RE. Acute effects of amperozide and paroxetine on social cohesion in male conspecifics. *Brain Research Bulletin*. 58(2): 187-91, Jun 2002
6. Rademacher DJ, Steinpreis RE, Weber DN. Short-term exposure to dietary Pb and/or DMSA affects dopamine and dopamine metabolite levels in the medulla, optic tectum, and cerebellum of rainbow trout (*Oncorhynchus mykiss*). *Pharmacology, Biochemistry, and Behavior*. 70(2-3): 199-207, Oct-Nov 2001
5. Rademacher DJ, Anders KA, Thompson KJ, Steinpreis RE. The failure of some rats to acquire intravenous cocaine self-administration is attributable to conditioned place aversion. *Behavioural Brain Research*. 117(1-2): 13-9, Dec 2000
4. Rademacher DJ, Anders KA, Riley MG, Nesbitt JT, Steinpreis RE. Determination of the place conditioning and locomotor effects of amperozide in rats: a comparison with cocaine. *Experimental and Clinical Psychopharmacology*. 8(3): 434-43, Aug 2000
3. Zhou T, Rademacher DJ, Steinpreis RE, Weis JS. Neurotransmitter levels in two populations of larval *Fundulus heteroclitus* after methylmercury exposure. *Comparative Biochemistry and Physiology. C: Pharmacology, Toxicology, and Endocrinology*. 124(3): 287-94, Nov 1999
2. Panos JJ, Rademacher DJ, Renner SL, Steinpreis RE. The rewarding properties of NMDA and MK-801 (dizocilpine) as indexed by the conditioned place preference paradigm. *Pharmacology, Biochemistry, and Behavior*. 64(3): 591-5, Nov 1999
1. Rademacher DJ, Kuppinger HE, Thompson KJ, Harrington A, Kaczmarek HJ, Kopish AJ, Steinpreis RE. The effects of amperozide on cocaine-induced social withdrawal in rats. *Behavioural Brain Research*. 99(1): 75-80, Feb 1999

Manuscripts In Submission:

- Rademacher DJ, Meier SE, Shi L, Ho WSV, Jarrahian A, Hillard CJ. The effects of restraint stress on endocannabinoid content in the amygdala, ventral striatum, and medial prefrontal cortex in mice. *Pharmacology, Biochemistry and Behavior*.

Oral and Poster Presentations:

23. Meredith GE, Rademacher DJ, Napier TC, De Vries T. Neural substrates of appetitive associative learning: new perspectives on drug seeking. To be presented at the 40th Annual Winter Conference on Brain Research in Snowmass Village, CO.
22. Meier SE, Rademacher DJ, Jarrahian A, Shi L, Ho VW, Hillard CJ. Restraint stress affects amygdalar, ventral striatal, and medial prefrontal cortex endocannabinoid contents in mice. Presented at the 36th Annual Society for Neuroscience Meeting in Atlanta, GA.
21. Rademacher DJ, Napier TC, Meredith GE. Markers for neuronal activity and synaptogenesis discriminate between conditioned place preference and motor sensitization. Presented at the 36th Annual Society for Neuroscience Meeting in Atlanta, GA.
20. Rademacher DJ, Meier SE, Shi L, Ho VWS, Hillard CJ. Endocannabinoid regulation of stress-induced anhedonia. Presented at the 18th Annual Great Lakes Chapter ASPET Meeting in Downers Grove, IL.
19. Rademacher DJ, Meier SE, Shi L, Ho VWS, Hillard CJ. Endocannabinoid regulation of anhedonia: role of stress-induced changes in endocannabinoid signaling in the amygdala. Presented at the 2005 Annual Symposium on the Cannabinoids in Clearwater, FL.

18. Patel S, Roelke C, Rademacher DJ, Cravatt BF, Hillard CJ. Cannabinoid modulation of stress-induced amygdala activation and neuroendocrine responses. Presented at the 2004 Annual Symposium on the Cannabinoids in Paestum, Italy.
17. Rademacher DJ, Savoie AM, Patel S, Rusch NJ, Hillard CJ. The vasoconstrictor U-46619 but not serotonin increases endocannabinoid content in the middle cerebral artery: evidence for functional relevance. Presented at the 2004 Annual Symposium on the Cannabinoids in Paestum, Italy.
16. Rademacher DJ, Weber DN, Hillard CJ. Subchronic waterborne lead exposure affects brain endocannabinoid content in male but not female fathead minnows (*Pimephales promelas*). Presented at the 2004 Behavioral Toxicological Society/National Institute of Environmental Health Sciences Annual Meeting in Research Triangle Park, NC.
15. Patel S, Rademacher DJ, Hillard CJ. Stress-induced activation of endocannabinoid signaling: neuroanatomical substrates of endocannabinoid modulation of anxiety. Presented at the 2003 Society for Neuroscience Annual Meeting in New Orleans, LA.
14. Patel S, Rademacher DJ, Hillard CJ. Dopaminergic determinants of endocannabinoid synthesis within the limbic forebrain: evidence for anatomically specific and activity-dependent formation *in vivo*. Presented at the 2003 Annual Symposium on the Cannabinoids in Cornwall, ON.
13. Rademacher DJ, Patel S, Rusch NJ, Hillard CJ. Multiple cell types within rat middle cerebral arteries produce endocannabinoids. Presented at the 2003 Annual Symposium on the Cannabinoids in Cornwall, ON.
12. Hillard CJ, Patel S, Rademacher DJ, Carrier EJ, Perry LJ, Wohlfeil E, Nithipatikom K, Campbell WB. Endocannabinoids: novel mediators of anesthetic action. Presented at the 2002 Annual Symposium on the Cannabinoids in Pacific Grove, CA.
11. Rademacher DJ, Patel S, Dean C, Hopp FA, Hillard CJ, Seagard JL. Cannabinoid microinjection into the nucleus tractus solitarius affects baroreceptor-mediated control of dynamic arterial blood pressure changes. Presented at the 2002 Annual Symposium on the Cannabinoids in Pacific Grove, CA.
10. Rademacher DJ, Harrits JW, Steinpreis RE. Effects of the selective mu1 opioid receptor antagonist, naloxonazine, on cocaine-induced conditioned place preference and locomotor behavior in rats. Presented at the 2001 Society for Neuroscience Annual Meeting in San Diego, CA.
9. Rademacher DJ. The effects of the selective serotonin 5-HT₃ receptor antagonist, MDL 72222, on cocaine-induced conditioned place preference and locomotor behavior. Presented at the 2001 Annual Graduate Student Research Symposium in Milwaukee, WI.
8. Rademacher DJ, Anderson AP, Thomas TL, Steinpreis RE. Effects of amperozide and paroxetine on social cohesion in male conspecifics. Presented at the 2001 Midwestern Psychological Association Annual Meeting in Chicago, IL.
7. Kaczmarek HJ, Hill KG, Rademacher DJ, Kiefer SW, Steinpreis RE. Voluntary ethanol consumption and whole brain monoamine levels in high-consuming and low-consuming mice. Presented at the 2000 Society for Neuroscience Annual Meeting in New Orleans, LA.
6. Rademacher DJ, Anders KA, Thompson KJ, Steinpreis RE. Failure of acquisition of intravenous cocaine self-administration in rats. Presented at the 2000 American Psychological Association Convention in Washington, D.C.
5. Rademacher DJ, Anders KA, Riley MG, Nesbitt JT, Steinpreis RE. Determination of the place conditioning properties of the potent 5-HT₂ receptor antagonist amperozide (FG 5606): A comparison with cocaine. Presented at the 1999 Society for Neuroscience Annual Meeting in Miami Beach, FL.

4. Weber DN, Rademacher DJ, Steinpreis RE. Predation on lead- and lead-chelator-exposed prey affect dopamine and serotonin levels in specific brain regions of rainbow trout (*Oncorhynchus mykiss*). Presented at the 1999 Midwest Regional Chapter of the Society of Environmental Toxicology and Chemistry Meeting in La Crosse, WI.
3. Rademacher D, Trimble J, Gaertner K, Moser L, Renner S, Schiller A, Steinpreis R. Effects of a subcutaneous naltrexone implant on cocaine-induced extracellular dopamine and dopamine metabolite elevations in the rat. Presented at the 1999 Society for Neuroscience Annual Meeting in Los Angeles, CA.
2. Rademacher DJ, Kuppinger HE, Thompson KJ, Harrington A, Kaczmarek HJ, Kopish A, Steinpreis RE. The effects of amperozide on cocaine-induced social withdrawal in rats. Presented at the 1997 American Psychological Association Convention in Chicago, IL.
1. Zhou T, Rademacher D, Weis P, Weis JS. Mercury burden and neurotransmitter levels in two populations of *Fundulus heteroclitus* after sublethal methylmercury exposure. Presented at the 1997 Society of Environmental Toxicology and Chemistry Annual Meeting in San Francisco, CA.

Honors and Awards Information:

- 2005, Poster Presentation Award (Postdoctoral Category), American Society for Experimental Therapeutics Great Lakes Chapter
- 2005, Scientific Achievement Award (Postdoctoral, Poster Presentation), International Cannabinoid Research Society
- 2005, Travel Award, International Cannabinoid Research Society
- 2004, Travel Award, Behavioral Toxicological Society
- 2004, Travel Award, International Cannabinoid Research Society
- 2003, Travel Award, International Cannabinoid Research Society
- 2002, Travel Award, International Cannabinoid Research Society
- 2001, American Psychological Association Student Travel Award, American Psychological Association Science Directorate
- 2001, American Psychological Association Dissertation Research Award, American Psychological Association Science Directorate
- 2000, Graduate School Travel Award, University of Wisconsin-Milwaukee
- 2000, Scholars for the Future Travel Award, National Institute on Drug Abuse
- 2000, American Psychological Association Student Travel Award, American Psychological Association Science Directorate
- 2000, Funded Externship, Center for Instructional and Professional Development, University of Wisconsin-Milwaukee
- 2000, Graduate Research Scholarship in Psychology, American Psychological Foundation and the Council of Graduate Departments of Psychology
- 1999, Anthony Fazio Research Prize, Department of Psychology, University of Wisconsin-Milwaukee
- 1997, Membership in the Honor Society of Phi Kappa Phi, University of Wisconsin-Milwaukee
- 1994-1992, Presidential Fellowship Scholarship, Hamline University

Editorial Activities:

- Ad hoc reviewer for Neuroscience Letters
- Ad hoc reviewer for Progress in Neuro-Psychopharmacology & Biological Psychiatry

- Medical Science Monitor International Reviewers Panel

Membership Information:

- American Psychological Association
- International Cannabinoid Research Society
- Society for Neuroscience

References:

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