

THOMAS S. HNASKO

Assistant Professor (start March 2012)
University of California, San Diego
Department of Neurosciences
Translational Neurosciences Institute

EDUCATION

- University of Washington, Seattle 2000-2006
Ph.D. Neurobiology & Behavior
- University of Wisconsin-Madison 1995-1999
B.S. Pharmacology & Toxicology

RESEARCH EXPERIENCE

- University of Paris Diderot-Paris 7 Nov 2011-present
Visiting Scientist Functional and Adaptive Biology, CNRS EAC4413
- University of California, San Francisco 2006-2011
Postdoctoral Fellow Department of Physiology
Laboratory of Dr. Robert H. Edwards
- Ernest Gallo Clinic & Research Center 2009-2011
Visiting Scholar
Laboratories of Dr. Howard L. Fields
& Dr. Antonello Bonci
- University of Washington, Seattle 2000-2006
Graduate Student Neurobiology & Behavior
Laboratory of Dr. Richard D. Palmiter
- University of Wisconsin-Madison 1999-2000
Research Intern Waisman Center
Laboratory of Dr. Albee Messing
- University of Wisconsin-Madison 1998-1999
Independent Study Dept. of Comparative Biosciences
Laboratory of Dr. Linda A. Schuler

AWARDS AND HONORS

- 2011-2012 University of Paris Diderot-Paris 7, Invited Scientist Campaign 2011
- 2011 Research in Paris, Foreign Researcher Grant (declined)
- 2010-2015 Mentored Research Scientist Career Development Award (K01), NIDA
- 2010 Young Investigator Travel Award, NIDA SFN satellite convention
- 2009 I.J. Kopin Young Investigator Travel Award, Gordon Research Conference on Catecholamines
- 2007 Young Investigator Travel Award, NIDA SFN satellite convention
- 2007-2010 Post-Doctoral Fellowship, A.P. Giannini Foundation for Medical Research
- 2006-2007 Post-Doctoral Fellowship, Wheeler Center for the Neurobiology of Addiction
- 2004 Federation of European Neurosciences Forum Travel Award, Society for Neuroscience
- 2003-2006 National Research Service Award (NRSA T32) in Cell and Molecular Biology, NIGMS
- 1999 Graduation Award for Scholarship, Leadership, and Good Citizenship, Covance Laboratories
- 1998 Scholarship Award for Academic Excellence, University of Wisconsin School of Pharmacy Alumni
- 1997-1999 Honor roll, University of Wisconsin-Madison School of Pharmacy

INVITED LECTURES

- 2010 Optogenetic glutamate corelease from dopamine terminals in the nucleus accumbens of adult mice is dependent on VGLUT2. *Society for Neuroscience*, San Diego California, November 15th.
- 2010 Vesicular glutamate transport promotes monoamine storage through a mechanism distinct from chloride. *Gordon Research Conference – Transporters*, Biddeford Maine, August 18th.
- 2009 Vesicular glutamate transport promotes dopamine storage and glutamate corelease *in vivo*. *UCSF Research in Progress Seminar*, San Francisco California, October 23rd.
- 2009 Vesicular glutamate transport promotes dopamine storage and glutamate corelease *in vivo*. *Gordon Research Seminar – Catecholamines*, Biddeford Maine, August 8th.
- 2009 Motivational aspects of feeding: dopamine & reward. *Ecole Normale Supérieure de Lyon*, Lyon France, June 15th.
- 2008 Motivational aspects of feeding: dopamine & reward. *Ecole Normale Supérieure de Lyon*, Lyon France, June 10th.
- 2006 Dopamine-deficient mice as a model to study drug reward. *University of Washington Center for Drug Addiction Research*, Seattle Washington, April 6th.
- 2005 Dopamine-deficient mice as a model to study drug reward. *Graduate Program in Neurobiology & Behavior Annual Retreat*, Seabeck Washington, September 14th.

PUBLICATIONS

18. **Hnasko TS**, Edwards RH. Neurotransmitter co-release: mechanism and physiological role. **Annual Reviews in Physiology** (In Press).
17. Talapor AE, Endo T, Low P, Borgius L, Hagglund M, Dougherty KJ, Ryge J, **Hnasko TS**, Kiehn O. Identification of minimal neuronal networks involved in flexor-extensor alternation in the mammalian spinal cord. **Neuron** 71:1071-84 (2011).
16. Goh GY, Huang H, Ullman J, Borre L, **Hnasko TS**, Trussell LO, Edwards RH. Presynaptic regulation of quantal size: K⁺/H⁺ exchange stimulates vesicular glutamate transport. **Nature Neuroscience**, 14:1285-92 (2011).
15. Koch SM, Dela Cruz SG, **Hnasko TS**, Edwards RH, Huberman AD, Ullian EM. Pathway-specific genetic attenuation of glutamate release alters select features of competition-based visual circuit refinement. **Neuron**, 71:235-42 (2011).
14. Scherrer G, Low SA, Wang X, Zhang J, Yamanaka H, Urban R, **Hnasko TS**, Edwards RH, Basbaum AI. VGLUT2 expression in primary afferent neurons is essential for normal acute pain and heat hypersensitivity following peripheral injury. **Proceedings of the National Academy of Sciences USA** 107:22296-01 (2010).
13. *Stuber G, ***Hnasko TS**, Britt J, Edwards RH, Bonci A. Dopaminergic terminals in the nucleus accumbens but not the dorsal striatum co-release glutamate. **Journal of Neuroscience**, 30:8229-33 (2010). ***Co-first authors**
12. **Hnasko TS**, Chuhma N, Zhang H, Goh GY, Sulzer D, Palmiter RD, Rayport S, Edwards RH. Vesicular glutamate transport promotes dopamine storage and glutamate corelease *in vivo*. **Neuron** 65:643-56 (2010).
11. Land BB, Bruchas MR, Schattauer S, Giardino WJ, Aita M, Messinger D, **Hnasko TS**, Palmiter RD, Chavkin C. Activation of the kappa opioid receptor in the dorsal raphe nucleus mediates the aversive effects of stress and reinstates drug seeking. **Proceedings of the National Academy of Sciences USA** 106:19168-73 (2009).
10. ***Hnasko TS**, *Sotak BA, Palmiter RD. Cocaine conditioned place preference in dopamine-deficient mice is mediated by serotonin. **Journal of Neuroscience** 27:12484-8 (2007). ***Co-first authors**
9. **Hnasko TS**, Hnasko RM, Sotak BN, Kapur RP, Palmiter RD. Genetic disruption of dopamine production results in pituitary adenomas and severe prolactinemia. **Neuroendocrinology** 86:48-57 (2007).
8. Robinson S, Rainwater AJ, **Hnasko TS**, Palmiter RD. Viral restoration of dopamine signaling to the dorsal striatum restores instrumental conditioning to dopamine-deficient mice. **Psychopharmacology** 191:567-78 (2007).
7. **Hnasko TS**, Edwards RH. Synaptic vesicles: half full or half empty? **Neuron** 51:523-4 (2006).
6. **Hnasko TS**, Perez FA, Scouras A, Stoll EA, Luquet S, Gale SD, Phillips PE, Kremer EJ, Palmiter RD. Cre-recombinase mediated restoration of dopamine production to the dorsal striatum results in hyperphagia and hyperactivity. **Proceedings of the National Academy of Sciences USA** 103:8858-63 (2006).
5. **Hnasko TS**, Sotak BA, Palmiter RD. Morphine reward in dopamine-deficient mice. **Nature** 438:854-7 (2005).
4. Luquet S, Perez FA, **Hnasko TS**, Palmiter RD. NPY/AgRP neurons are essential for feeding in adult mice but can be ablated in neonates. **Science** 310:683-5 (2005).
3. Sotak BA, **Hnasko TS**, Robinson S, Kremer EJ, Palmiter RD. Dysregulation of dopamine signaling in the dorsal striatum inhibits feeding. **Brain Research** 1061:88-96 (2005).
2. **Hnasko TS**, Szczycka MS, Alaynick WA, During MJ, Palmiter RD. A role for dopamine in feeding responses produced by orexigenic agents. **Brain Research** 1023:309-18 (2004).
1. Heusner CA, **Hnasko TS**, Szczycka MS, Liu Y, During MJ, Palmiter RD. Viral restoration of dopamine to the nucleus accumbens is sufficient to induce a locomotor response to amphetamine. **Brain Research** 980:266-74 (2003).