

ROBERT M HALLOCK, PhD
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EDUCATIONAL BACKGROUND

- 2005 - 2010** **University of Colorado Denver: Anschutz Medical Campus**
Postdoctoral Fellow
Cell & Developmental Biology (Neuroscience program)
Mentor: Dr. Thomas Finger
- 2005** **Binghamton University**
PhD in Behavioral Neuroscience with a minor in Statistics
Mentor: Dr. Patricia Di Lorenzo
- 2002** **Binghamton University**
M.A. in Psychology
Mentor: Dr. Patricia Di Lorenzo
- 1999** **State University of New York at Potsdam**
B.A. in Psychology
Advisor: Dr. Thomas Gerstenberger

TEACHING EXPERIENCE

- 2010 – Present** **Visiting Assistant Professor of Neuroscience**
Skidmore College, Saratoga Springs, NY

PS-217: Statistical Methods in Psychology
PS-231: Neuropsychology
PS-312: Pheromones and Behavior
PS-325: Perception
NS-101: Introduction to Neuroscience
NS-277: Integrated Seminar in Neuroscience
NS-313: Glial Neurobiology
BI-351: Neurobiology of Toxic Fungi
PS-275 (Exploratory Research) and BI-371 (Independent Study in Biology)

- 2010** **Adjunct Psychology Faculty**
Denver University, Denver, CO

Psych 2080: Drugs & Behavior

- 2000-2003** **Graduate Student (Instructor of Record)**
Department of Psychology, Binghamton University, Binghamton, NY

Psyc 352: Experimental Lab in Perception
Psyc 357: Experimental Lab in Learning Psychology
Psyc 362: Physiological Psychology

1999-2002 **Graduate Student (Teaching Assistant)**
Department of Psychology, Binghamton University, Binghamton, NY

Statistics
Graduate Statistics
Research Methods

RESEARCH EXPERIENCE

- 2005 to 2010 Postdoctoral Fellow, University of Colorado Denver, Aurora CO.
Principle Investigator: Thomas Finger, PhD.
Project: I examined the taste system of the goldfish. I used behavioral assays of feeding behavior, *in vitro* slice physiology, PCR, RNA extraction from tissue, and immunohisto-chemistry. I demonstrated that goldfish have presynaptic metabotropic glutamate receptors that function as presynaptic autoreceptors to decrease synaptic activity.
- 1999 to 2005 Graduate Student, Binghamton University, Binghamton NY.
Mentor: Patricia Di Lorenzo, PhD
I examined the taste system of the rat. I used behavioral assays of taste reactivity, gustatory nerve transections, chronic and acute surgeries, extracellular electrophysiological recordings from single cells in the brainstem, and chronic implantation of electrodes.
- Summer 2002 Summer research program: *Chemosensory neurobiology in the marine environment*, Bermuda Biological Station for Research, Bermuda.
Supervisors: Charles Derby, PhD and Hank Trapido-Rosenthal, PhD.
This program delved into the olfactory system of the spiny lobster (*Panulirus argus*) using behavioral, biochemical, and molecular assays.
- 1998 to 1999 Senior honors project, State University of New York at Potsdam
Advisor: Thomas Gerstenberger, PhD
This project examined the impacts of unattended near-threshold auditory information on galvanic skin responses (GSR).
- Spring 1996 I worked in a biofeedback laboratory at Ulster County Community College for 3 hours a week. Equipment included analogue GSR, electroencephalogram (EEG), electromyogram (EMG), and an electrocardiogram (EKG).

PUBLICATIONS

Bind RH, Minney SM, Rosenfeld S, **Hallock RM**. (2013). The role of pheromone responses in rodent behavior: applications and future directions for lab protocol development. *Journal of the American Association for Laboratory Animal Science*, 52(2): 124-9.

Belser-Ehrlich S, Harper A, Hussey J, **Hallock RM** (2013). Human and cattle ergotism since 1900: symptoms, outbreaks and regulations. *Toxicology and Industrial Health*, 29(4): 307-316.

Marriott S, Cowan E, Cohen J, **Hallock RM** (2013) Somatosensation, echolocation, and underwater sniffing: adaptations allow mammals without traditional olfactory capabilities to forage for food underwater. *Zoological Science*, 30(2): 69-75.

Hallock RM, Dean A, Knecht ZA, Spencer J, Taverna EC (2012). A survey of hallucinogenic mushroom use, factors related to usage, and perceptions of use among college students. *Drug and Alcohol Dependence*. *In Press*

O'Connor C, **Hallock RM** (2012). Exposure to mature puffball spores can cause lung inflammation and death in dogs. *Fungi* 5(4); 10-11.

Kitchen R, Allen T, **Hallock RM** (2011). How to tell if your cat or dog has consumed a psychotropic mushroom. *Fungi*, 4(5): 31-35.

Hallock RM, Tatangelo M, Barrows J, Finger TE (2009). Residual chemosensory capabilities in double P2X2/P2X3 purinergic receptor null mice: intraoral or post-ingestive detection? *Chem Senses*. 34(9): 799-808.

Eddy MC, Eschle BK, Barrows J, **Hallock RM**, Finger TE, Delay ER (2009). Double P2X2/P2X3 purinergic receptor knockout mice do not taste NaCl or the artificial sweetener SC45647. *Chem Senses*. 34(9): 789-797.

Hallock RM, Martyniuk CJ, Finger TE (2009). Group III metabotropic glutamate receptors (mGluRs) modulate transmission of gustatory inputs in the brain stem. *J Neurophysiol* 102(1): 192-202.

Hallock RM (2007). The taste of mushrooms. *McIlvainea* 17: 33-41.

Hallock RM, Di Lorenzo PM (2006). Temporal coding in the gustatory system. *Neurosci Biobehav Rev*. 30: 1145-1160.

Hallock RM, Di Lorenzo PM (2006). Effects of electrical stimulation of the glossopharyngeal nerve on cells in the nucleus of the solitary tract of the rat. *Brain Res*. 1113(1):163-73.

Di Lorenzo PM, **Hallock RM**, Kennedy DP (2003). Temporal coding of sensation: mimicking taste quality with electrical stimulation of the brain. *Behav Neurosci*. 117(6):1423-33.

SELECTED PRESENTATIONS AT PROFESSIONAL CONVENTIONS

Hallock RM (2009). Presynaptic GABA_A and GABA_B receptors modulate transmission of taste information in the primary gustatory nucleus. Poster presented at the 39th annual meeting of Society for Neuroscience, Chicago, IL.

Hallock RM, Meredith FL, Grybko MJ and Finger TE (2008). FM1-43 as a tool to Examine Presynaptic Activation in the Taste System. Poster presentation at the 30th annual meeting of AChemS and 15th annual meeting of the International Symposium on Olfaction and Taste (ISOT), San Francisco, CA.

Hallock RM, & Finger T (2007). Group III metabotropic glutamate receptors modulate transmission of primary gustatory inputs. Poster presentation at the 37th annual meeting of Society for Neuroscience, San Diego, CA.

Hallock RM, Ikenaga T, & Finger TE (2006). Ca²⁺ imaging of primary gustatory afferents in the vagal lobe of the goldfish. Poster presentation at the 28th annual meeting of AChemS, Sarasota, FL.

Hallock RM, & Di Lorenzo PM (2005). Response properties of cells in the rat nucleus of the solitary tract following glossopharyngeal nerve stimulation: evidence of modulatory activity and the convergence of input from the hypoglossal nerve. Poster presentation at the 27th annual meeting of AChemS, Sarasota, FL.

Hallock RM, Roussin AT, & Di Lorenzo (2004). Paired pulse depression and facilitation in the nucleus of the solitary tract following glossopharyngeal nerve stimulation. Poster presentation at the 34th annual meeting of Society for Neuroscience, San Diego, CA.

Hallock RM, & Di Lorenzo PM (2003). Evoked responses to electrical stimulation of the glossopharyngeal nerve in the nucleus of the solitary tract in the rat. Poster presentation at the 33rd annual meeting of Society for Neuroscience, New Orleans, LA.

Hallock RM, & Di Lorenzo PM (2002). Generalization of a conditioned aversion to lick-contingent electrical stimulation of the nucleus of the solitary tract to a natural tastant. Poster presented at the 24th annual meeting of AChemS, Sarasota, FL.

Hallock RM, Kennedy DP, & Di Lorenzo (2001). Temporal pattern of lick-contingent electrical stimulation in the nucleus of the solitary tract predicts behavioral rejection. Poster presented at the 23rd Annual Meeting of AChemS, Sarasota, FL.

FUNDING, AWARDS & ACCOMPLISHMENTS

- Aug 2011 Skidmore Bender Grant: Funding for one Skidmore student and one local high school student to do faculty-associated research.
- 2007-2009 National Research Service Award (NRSA) F32 DC009158, Metabotropic glutamate receptors in the vagal processing of taste information, \$100,000.
- June 2002 Professional Research Development Award through Binghamton University, \$1,000.00.
- May 1999 Graduation from SUNY Potsdam Summa Cum Laude.
- 1998-1999 Vice President & member of Psi Chi (Honor society for Psychology) in Potsdam.
- 1997-1998 President's list, SUNY Potsdam.

PROFESSIONAL AFFILIATIONS

Association for Chemoreception Sciences (2000-2010).

Society for Neuroscience (2004-2010).

Rocky Mountain Regional Neuroscience Group (2005-2010)