

4. Psychoneuroendocrinology, Psychology 335
16 students- Spring 2008
25 students- Spring 2006
5. Emotions and Life, Psychology 440
15 students-Fall, 2006
21 students- Fall, 2005
24 students- Fall, 2004

B. Graduate Classes- *Bowling Green State University*

1. Psychobiology, Psychology 714
5 students-Spring, 2007
8 students- Spring, 2005
5 students- Spring, 2004
2. Current Topics in Affective Neuroscience, Psychology 780/781 (*Themes*)
23 students- Fall, 2006 (*Pediatric Psychiatry*)
5 students- Spring, 2004 (*Affective Consciousness*)
10 students- Fall, 2002 (*Basics of Brain and Emotion*)
3. Clinical Neuroscience, Psychology 781/581
8 students- Spring, 2008

C. Undergraduate Classes- *Non-Bowling Green State University*

1. Introduction to Psychology- High Point University
25 students -Spring Semester 2002

D. Graduate Classes- *Non-Bowling Green State University*

1. Human Neuroanatomy- California State University at Northridge
30 students -Spring Semester 1996
2. Human Physiology Laboratory- University of Fribourg (Switzerland)
17 students -Spring Quarter 1999
15 students- Spring Quarter 1998
3. Motor Physiology – Wake Forest University Medical School
6 students -Spring Semester 2002
5 students – Spring Semester- 2001

E. Master's Thesis, Preliminary Exam and Doctoral Dissertation Students

1. Thesis (Chair)

<u>Name</u>	<u>Degree</u>	<u>Year</u>	<u>University/Institution</u>
Emily Webber	Master of Art	June, 2009	BGSU

G. Membership Preliminary Exam Committee

Paul Geotz	Prelim Project	In Progress	BGSU
<i>Relationship between worry and cardiac variability</i>			
Leisha Colyn	Prelim Project	In Progress	BGSU
<i>Schadenfruede and Cognitive Dissonance</i>			
Michelle Pavlick	Prelim Project	10/16/2008	BGSU
<i>Why do college students drink? A review of motives</i>			
Daniel Hiler	Prelim Exam	9/2007	BGSU
<i>Biology Qualifying Exam</i>			
Gabriel de la Rosa	Oral/Written Exam	4/2007	BGSU
<i>Leadership and Work Output</i>			
Quinten Lynn	Oral/Written Exam	8/2006	BGSU
<i>Faith, Religion and Sports</i>			
Jeffrey Burgdorf	Preliminary Project	8/2005	BGSU
<i>Electrical self-stimulation of the brain and reward</i>			
Ryan Yoder	Oral Exam	8/2004	BGSU

H. Membership Thesis Committee

Katie Hiler	M.S. Biology	June, 2009	BGSU
<i>Effects of subtle hypothyroidism on motor function</i>			
Cynthia Toth	M.S. Biology	June, 2009	BGSU
<i>Effects of subtle hypothyroidism on social development</i>			
Liesha Waddilove	M.A. Psych	7/2007	BGSU
<i>Schadenfruede: Exploring the Dark Side of Friendship</i>			
Michelle Pinter	M.A. Psych	6/2007	BGSU
<i>Craving in Binge Drinkers in college aged sample</i>			
Avanti Desai	M.S. Biology	6/2007	BGSU
<i>Effects of PCBs on learning and memory of hippocampal system</i>			
Banafsheh Jolous-Jamshidi	M.S. Biology	5/2007	BGSU
<i>Effects of PCBs on social recognition and oxytocin in the rat</i>			
Dena Krishnan	M.S. Biology	5/2007	BGSU
<i>Effects of PCBs on motor and social development: A model of autism</i>			
Adam Jansen	M.S. Biology	5/2007	BGSU

Memory Reconsolidation: Review and Relations

Christina Asbrock M.S. Biology 8/2006 BGSU
Effects of PCBs on maternal bonding and cytokines

Ann Mary Mercier M.A.Psych 2/2005 BGSU
Timing and Development

Christopher Ayala M.A. Psych 3/2005 BGSU
Effects of exposure and verbal context on memory for music

Jeffrey Burgdorf M.A. Psych 1/5/2005 BGSU
Reward functions of distinct ventral pallidal subregions

IV. CURRICULUM DEVELOPMENT

A. New courses developed include:

1. Motivational Neuroscience Laboratory course (PSYCH 332)
2. Emotions and Life upper level undergraduate seminar course (PSYCH 440)
3. Value initiative for General Education course
4. Introduction to Psychology with Peer Facilitator, Fall, 2005
5. Introduction to Pediatric Psychiatry
Semester course with Dr. Luke Tsai, Director of the Autism Clinic
University of Michigan Medical Center
6. Clinical Neuroscience for graduate students

B. Teaching/Curriculum Development Workshops

1. BGeXperience Continuing Faculty Training
May 4-5th, 2006
2. Understanding Millennial Students: Breakfast and Conversation Across the Divisions Workshop
Sept. 16th, 2005
3. BGeXperience Workshop Training
August 1-5th, 2005
4. 10th Annual American Psychological Society Teaching Institute
May 29th, 2003 Atlanta, USA

V. PROFESSIONAL DEVELOPMENT

A. Workshops

1. Workshop on the teaching of Critical Thinking
February, 2009 BGSU Center for Teaching, Learning and Technology
2. Workshop on Digital Camera Use
July, 2003 BGSU Media Services
3. Workshops on Website Design (Dreamweaver Basics)
July-August, 2003 BGSU Computer Technology for Faculty
4. Faculty Development Workshop
May 3rd, 2003 College of Arts and Sciences
May, 2004 College of Arts and Sciences
5. Curriculum Vitae Writing Basics for BGSU Faculty
April 22nd, 2003 Center for Teaching, Learning and Technology

B. Post-doctoral training:

1. Research Fellow, (2000-2001) Department of Physiology and Pharmacology
Wake Forest University School of Medicine
Funding Agency: National Institute of Drug Abuse
Mentor: Donald J. Woodward
2. International Research Fellow (1996-1999) Neurophysiology Section, Institute of Physiology
University of Fribourg, Switzerland
Funding Agency: National Science Foundation (Swiss & USA)
Training Program: Division of International Programs
Mentor: Wolfram Schultz
3. Post-doctoral Trainee, (1993-1996) Neurophysiology Group, Mental Retardation Research Center
University of California at Los Angeles School of Medicine
Funding Agency: National Institute of Mental Health
Training Program: MRRC Center Training Grant
Mentors: Nathaniel A. Buchwald & Michael S. Levine

VI. RESEARCH INTERESTS

- A. Brain mechanisms of reward and motivation
- B. Physiology of attention and neural inhibition
- C. Neurophysiology of the basal ganglia system
- D. Neuroscience of social behavior and communication
- E. Genetic and behavioral investigation of social behavior
- F. Neuropathology of developmental disorders

VII. RESEARCH GRANTS

A. Funded:

1. *Corticosterone and Social Development*
Hope for Depression Research Foundation 2/1/09-4/30/2010
Principal Investigator \$45,000.00
2. *Effects of PCBs on Social Behavioral Development*
R03 Grant The National Institute of Mental Health, Start Date 6/08-12/2010
Principal Investigator \$144,000.00
3. *Creating a new animal model of depression*
Hope for Depression Research Foundation 1/1/07-12/31/08
Principal Investigator, \$100,000.00
4. *Rat ultrasonic vocalization playback experiment*
John Paul Scott Neuroscience Center Faculty Development Award, 4/05
Principal Investigator, \$2,000.00
5. *Genetics of Social Reward*
Research Incentive Grant from Faculty Research Committee
Bowling Green State University, 6/05- 6/06
Principal Investigator \$8,000.00
6. *The effects of food deprivation on striatal activity*
John Paul Scott Neuroscience Center Faculty Development Award, 6/05-9/05
Principal Investigator \$9945.00
7. *Effects of early amygdala damage on social reward and neural inhibition*
Research Incentive Grant from Faculty Research Committee
Bowling Green State University, 6/03-5/04
Principal Investigator \$8,000.00
8. *Children's readiness to learn: An analysis of social and biological factors important for social competence"*
Interdisciplinary Grant Award from The College of Education,
Bowling Green State University 7/03-8/04
Co-Investigator \$25,000.00
9. *Effects of early brain damage on behavior and neurophysiology*
Pilot Project from Ohio Board of Regents Incentive, 6/03
Principal Investigator \$1300.00
10. *Influence of reward devaluation on striatal activity*
National Institutes of Mental Health Award for New Investigators 1/03-12/04
Principal Investigator \$50,000.00

B. Submitted:

1. *Gating and GABA: Inhibition in Striatum*
R01 Grant from National Institutes of Health StartDate 4/01/09
2. *Influence of Mercury on social behavioral development*
Pilot Research Project from AutismSpeaks StartDate 1/1/09
3. *Corticosterone and Social Behavior Development*
Investigator Award from National Alliance for Research on Schizophrenia and Affective Disorders (NARSAD) Start Date 10/2008 \$100,000 for 2 years
4. *Effects of maternal ingestion of polychlorinated biphenyls on social behavior and motoric abilities in the young animal*
March of Dimes Foundation Research Grant, Start Date 6/07
Principal Investigator, \$ 303,189.00 for 3 years.
5. *Reward revaluation and nucleus accumbens activity*
R01 Grant to National Institute of Mental Health, Start date 6/06,
Principal Investigator, \$ 963,250.00 for 5 years
6. *Effects of maternal ingestion of polychlorinated biphenyls on social behavior development*
March of Dimes Foundation Research Grant, Start Date 6/05
Principal Investigator, \$ 141,016.00 for 2 years.
7. *Genetics of social reward*
R03 Grant to The National Institute of Mental Health, Start Date 5/15/05
Principal Investigator, \$ 69,500.00
8. *Basic properties of inhibitory gating in frontal cortex*
R21 Grant to National Institute of Mental Health, Start Date 4/1/05
Principal Investigator, \$163, 610.00
9. *Role of nucleus accumbens activity in anticipatory behavior*
Research Proposal to the National Science Foundation. Start date 8/04,
Principal Investigator \$315,764.00
10. *Influence of reward devaluation on striatal activity*
R01 Grant to National Institute of Mental Health, Start date 4/04,
Principal Investigator, \$189,922.00

VIII. PUBLICATIONS

A. Book Chapters

1. Cromwell HC and King BH (2004) Involvement of basal ganglia in the production of self-injurious behavior in developmental disorders. *International Review of Mental Retardation Research*, 29: 119-158.

B. Journal Articles (peer reviewed)

1. J.D. McAuley, A.L. Stewart, E.S. Webber, H.C. Cromwell, R.J. Servatius, & K.C.H. Pang (2009) Wistar-Kyoto rats as an animal model of anxiety vulnerability: Support for a hyper-vigilance hypothesis. *Behav Brain Res*. Jun 11.
2. Mears, RP, Boutros, NN, Cromwell HC (2009) Reduction of Prelimbic Inhibitory Gating of Auditory Evoked Potentials After Fear Conditioning. *Behavioral Neuroscience*. Apr;123(2):315-27.
3. Burgdorf, J., Moskal J.R., Cromwell H.C., Brudzynski, S.M., Kroes R.A., and Panksepp J. (2009) Emotional behavior of rats selectively bred for differential levels of 50 kHz ultrasonic vocalizations. *Dev Psychobiol*. Jan;51(1):34-46.
4. Harmon K.M., McFarland A.M., Beckwith, T.J., Greenwald, M. and Cromwell H.C. (2009) The effects of prenatal stress on social motivation in rat pup. *Stress*;12(3):250-8.
5. Harmon, K.M., Cromwell H.C., Burgdorf, J., Moskal J.R., Brudzynski, S.M., Kroes R.A., and Panksepp J. (2008) Rats bred for low 50 kHz ultrasonic vocalizations exhibit changes in early social motivation. *Developmental Biopsychology* 50(4): 322-331.
6. Cromwell H.C., Mears, RP, Wan L. and Boutros NN. (2008) Sensory Gating: A translational effort from basic to clinical science. *Journal of Clinical EEG & Neuroscience*: 39(2) 1-4.
7. Cromwell H.C., Johnson A., McKnight L., Horinek M., Asbrock C., Burt S., Jolous-Jamshidi, B. and Meserve L.A. (2007) Effects of polychlorinated biphenyls on maternal odor conditioning in rat pups. *Physiology and Behavior* 91(5):658-66.
8. Cromwell H.C., Klein A.C. and Mears R.P. (2007) Single unit and population responses during inhibitory gating of striatal activity in freely moving rats. *Neuroscience* Apr 27;146(1):69-85. Epub 2007 Feb 22.
9. Anstrom K.K., Cromwell H.C. and Woodward D.J. (2007) Effects of restraint and haloperidol on sensory gating in the midbrain of awake rats. *Neuroscience* May 11;146(2):515-24. Epub 2007 Mar 23.
10. Cromwell H.C. and Woodward D.J. (2006) Inhibitory gating and amygdale: Influence of haloperidol, ketamine or nicotine. *Biological Psychiatry*, Apr 1;61(7):880-9. Epub 2006 Oct 19.
11. Mears R.P., Klein A.C. and Cromwell H.C. (2006) Auditory inhibitory gating in the medial prefrontal cortex: Single unit and local field potential analysis. *Neuroscience*, 141(1):47-65.
12. Cromwell H.C., O.K Hassini and W. Schultz. (2005) Relative reward processing in primate striatum. *Exp Brain Res*. May;162(4):520-5. Epub 2005 Mar 8.
13. Cromwell H.C., Anstrom K.K., Azaroz, A., and Woodward DJ (2005) Single unit analysis of inhibitory gating in the amygdala of behaving rat. *Brain Research*, 1043 (1-2): 12-23.
14. Cromwell HC and Schultz W. (2003) Influence of the expectation for different reward magnitudes on behavior-related activity in primate striatum. *J. Neurophysiology* 89: 2823-2838.

15. Anstrom KK, Markowski T., Cromwell H.C. and Woodward DJ (2003) The effect of baclofen on ethanol and sucrose self-administration in rats. *Alcoholism: Clinical and Experimental Research* 27: 900- 908.
16. Watanabe M., H.C. Cromwell, Tremblay L., Hollerman JR, Hikosaka K. and Schultz W. (2001) Behavioral reactions reflecting differential expectations of outcomes in monkeys. *Experimental Brain Research* 140: 511-518.
17. Hassani O.K., H.C. Cromwell and W. Schultz (2001) Influence of the expectation for different rewards on behavior-related neuronal activity in primate striatum. *Journal of Neurophysiology* 85: 2477-2489.
18. Brunson, K.L., A. Khanna, H.C. Cromwell and R.W. Cohen (2001) The effect of the non-competitive NMDA antagonists MK-801 and ketamine on the spastic Han-Wistar mutant: A rat model of excitotoxicity. *Developmental Neuroscience*, 23(1): 31-40.
19. Sabatino, M., H.C. Cromwell, C. Cepeda, M.S. Levine and V. LaGrutta. (1999) Acetylcholine receptor activation enhances NMDA receptor-mediated responses in neostriatum. *Clinical Neurophysiology*, 29(6): 482-489.
20. Cepeda, C., Z. Li., H.C. Cromwell, K.L. Altremus, C.A. Crawford, E.A. Nanson, M.A. Aiano, D.R. Sibley, W.K. Peacock, G.W. Mathern and M.S. Levine (1999) Electrophysiological and morphological analyses of cortical neurons obtained from children with catastrophic epilepsy: Dopamine receptor modulation of glutamatergic responses. *Developmental Neuroscience*, 21 (3-5): 223-235.
21. Cromwell H.C., M.S. Levine, and B.H. King (1999) Cortical damage enhances pemoline-induced self-injurious behavior in prepubertal rats. *Pharmacol Biochem Behavior* Feb;62(2):223-7.
22. Cromwell H.C., K.C. Berridge, J. Drago and M.S. Levine (1998) Action sequencing is impaired in D1A-deficient mutant mice. *Eur J Neuroscience* Jul;10(7):2426-32.
23. King B.H., H.C. Cromwell N.T. Maidment, T. Schmanke and M.S. Levine (1998) Dopaminergic and glutamatergic interactions in the expression of self-injurious behavior. *Dev Neuroscience.*;20(2-3):180-7. Review.
24. Cromwell H.C., B.H. King, and M.S. Levine (1997) Pemoline alters dopamine modulation of synaptic responses of neostriatal neurons in vitro. *Dev Neuroscience*;19(6):497-504.
25. Cromwell H.C. and K.C. Berridge (1997) Haloperidol decreases hyperkinetic paw treading induced by globus pallidus lesions in the rat *Exp Neurology*, May; 145(1): 288-94.
26. Cromwell H.C. and M.S. Levine (1996) Neocortical damage alters synaptic responses of neostriatal neurons in vitro. *Neuroscience*, Nov;75(2):361-72.
27. Levine M.S., K.L. Altremus, C. Cepeda, H.C. Cromwell, C.A. Crawford, M.A. Ariano, J. Drago, D.R. Sibley, and H. Westphal (1996) Modulatory actions of dopamine on NMDA receptor-mediated responses are reduced in D1A-deficient mutant mice. *Journal of Neuroscience* Sep 15;16(18):5870-82.
28. Levine M.S., Z. Li., C. Cepeda, H.C. Cromwell and K.L. Altremus (1996) Neuromodulatory actions of dopamine on synaptically-evoked neostriatal responses in slices. *Synapse*, Sep;24(1):65-78
29. Cromwell H.C. and K.C. Berridge (1996) Implementation of action sequences by a neostriatal site: a lesion mapping study of grooming syntax. *Journal of Neuroscience* May 15;16(10):3444-58.
30. Cromwell H.C., E.A. Witte, C. A. Crawford, T.L. Hoa, N.T. Maidment and B.H. King (1996) Pemoline produces ipsilateral turning behavior in unilateral 6-OHDA-lesioned

rats. *Progress in Neuropsychopharmacology and Biological Psychiatry*. Apr;20(3):503-14.

31. Cromwell H.C., N.A. Buchwald and M.S. Levine (1995) Decortication decreases paired-pulse facilitation in the neostriatal slice of the rat. *Neurosci Letters*, Jun 16;192(3):213-7.
32. Cromwell H.C. and K.C. Berridge (1994) Mapping of globus pallidus and ventral pallidum lesions that produce hyperkinetic treading. *Brain Research*, Dec 30;668(1-2):16-29.
33. Cromwell H.C. and K.C. Berridge (1993) Where does damage lead to enhanced food aversion: the ventral pallidum/substantia innominata or lateral hypothalamus? *Brain Research*, Oct 8;624(1-2):1-10.
34. Berridge K.C. and H.C. Cromwell (1990) Motivational-sensorimotor interaction controls aphagia and exaggerated treading after striatopallidal lesions. *Behavioral Neuroscience* Oct;104(5):778-95.

IX. PAPERS READ TO PROFESSIONAL SOCIETIES

A. Invited papers

1. Cromwell H.C. (2006) Single unit analysis of inhibitory gating in different interconnected brain structures. Presenter at the Third Annual Electroencephalography and Clinical Neurophysiology Society (ECNS) Conference in Boston, (Sept)
2. Cromwell H.C. (2006) Symposium Organizer and Co-Chair at the 3rd Annual ECNS Conference in Boston, (Sept.) Symposium entitled, "Inhibitory gating from the clinic to basic research".
3. Cromwell H.C. (2005) Integrating new computational methods into neural event analysis: linking neural and behavioral data with biologically plausible models. Midwest Symposium on Circuits and Systems, Cincinnati, OH., Aug 7-10.
4. Cromwell H.C. (1998) Cognitive aspects of reward processing in the primate basal ganglia. Presented at the European Behavioral Pharmacology Society Meeting. *Behavioral Pharmacology* 33, 202. Brno Czech Republic (Symposium Speaker)
5. Cromwell H.C. (1997) Functions of the basal ganglia. Presented at the Workshop zur Heptischen Encephalopathie, May 14-15th, Hannover, Germany
6. Cromwell H.C. (1997) Primate striatal neuron activity in choice tasks. Presented at the Annual Network Meeting for the Human Capital and Mobility Foundation: Biomed II. L'Aquila, Italy.

B. Refereed Papers/Abstracts

1. Cromwell HC, Mankin DE, Webber ES (2009) USVs during PPI: Effects of expectations. *Society for Neuroscience*, Chicago Ill.
2. Harmon KM, McGraw J., Mankin DE, Cromwell HC (2009) Role of corticosterone in early social motivation in the rat. *Society for Neuroscience*, Chicago Ill.
3. Mankin DM, Stoffer, M., Shaw, K., Baldwin, N., Meserve, LA. And Cromwell HC (2009) Hypothyroid status or PCB exposure: Effects on PPI and USVs in the ra. *Society for Neuroscience*, Chicago, Ill.
4. Webber ES, Becwith TJ, Pena SR, and Cromwell HC (2009) Selective breeding for differential USVs: An examination of social recognition and fear conditioning. *Society for Neuroscience*, Chicago Ill.

5. Mears RP, Kocsis, B., Boutros, NN, and Cromwell HC (2009) Ketamine and haloperidol differentially influence inhibitory gating and gamma rhythm in the rat medial prefrontal cortex. *Society for Neuroscience*, Chicago Ill.
6. Webber ES, Pena S, and Cromwell HC (2009) Fear assessment and social recognition in rats selectively bred for different levels of USV emission. *International Behavioral Neuroscience Society Meeting*, June, 9-12th.
7. Meserve LA, Hiler KA, Toth, CL and Cromwell HC (2009) Comparison of hypothyroid state and PCB exposure on motor function. *The Endocrine Society's 90th Annual Meeting*
8. Mankin DE, Shaw K, Baldwin N, Meserve LA and Cromwell HC (2009) Prepulse inhibition of the acoustic startle response in rodents exposed to polychlorinated biphenyls. *Ohio Journal of Science* 109 in press.
9. Varner, EJ and Cromwell HC (2009) Multiple Intelligences & The Development of Specific Cognitive Abilities. *American Junior Academy of Sciences*, Chicago Ill Feb 12-15th,
10. Webber ES, Beckwith TJ and Cromwell HC (2008) Prepulse inhibition in rats bred for different levels of 50 kHz ultrasonic vocalizations. *Society for Neuroscience Planner* 3 883.11/TT87 Washington D.C.
11. Hiler KA, Toth CL, Smith WL, Pena SR, Cromwell HC and Meserve LA (2008) Influence of perinatal PCB exposure and hypothyroidism on subsequent motor and behavioral development in the rodent model. *Society for Neuroscience Planner* 33 864.19/LL26 Washington D.C.
12. McFarland AM, Beckwith TJ, Greenwald M., and Cromwell HC (2008) Effects of variation in maternal care on early social motivation in rat pups. *Society for Neuroscience Planner* 33 795.18/UU36 Washington D.C.
13. McAuley, JD, Stewart AL, Webber ES, Cromwell HC, Servatius R., Pang, KCH (2008) Wistar-Kyoto rats demonstrate enhanced startle, sensorimotor gating and distractibility: Support for a hyper-vigilance model of vulnerability to anxiety. *Society for Neuroscience Planner* 33 196.3/UU68 Washington D.C.
14. McFarland, AM, Greenwald, M, Beckwith, TJ and Cromwell HC (2008) The effects of natural fluctuations in early maternal care on social motivation in young rats. *American Psychological Society Meeting*, Chicago, May 22nd.
15. McFarland, AM and Cromwell HC (2008) The effects of natural fluctuations in early maternal care on the affective and behavioral states of the offspring of long-evans rats. *The Ohio Journal of Science* 108 (1) A-35.
16. Greenwald. M., McFarland, AM, Beckwith, TJ and Cromwell HC (2008) The effects of prenatal prozac on affective and behavioral states of the offspring in long-evan rats. *The Ohio Journal of Science* Vol 108 (1) A-34.
17. Harmon KM, McFarland AM, Beckwith TJ, Greenwald M and Cromwell HC (2007) The effects of mild prenatal stress on social motivation in rat pups. *Society for Neuroscience Abstracts* 32: CD-ROM.
18. Jolous-Jamshidi, B, McFarland AM, Cromwell HC and Meserve LA (2007) Effects of PCBs on social recognition in juvenile rats. *Society for Neuroscience Abstracts*: 32 CD ROM.
19. Krishnan D., Trang T., Cromwell HC and Meserve LA. (2007) Effects of PCBs on motor development: New insights into toxins and developmental disorders. *Society for Neuroscience Abstracts* 32: CD ROM.
20. Desai A. Cromwell HC and Meserve LA. (2007) Effects of perinatal PCBs on learning and memory function. *Society for Neuroscience Abstracts* 32: CD-ROM San Diego
21. Meserve L.A., Asbrock C. and Cromwell H.C. (2007) Influence of perinatal ingestion of the mixture PCB 47/77 on circulating IL-6 and TNF-[alpha] and maternal odor conditioning in young Sprague-Dawley rats. *The Endocrine Society's 89th Annual Meeting*.

22. Harmon KM, McFarland AM, Beckwith TJ, Greenwald M and Cromwell HC (2007) Effects of prenatal stress on social motivation in rat pups. *Parental Brain Conference*, Boston, Mass. USA.,
23. Krishnan DK, Trang T., Cromwell HC and Meserve LA. (2007) Perinatal PCB disrupts developing motor skills in rats: A possible model for autism. *Neural Systems for Social Behavior Conference*, Austin, TX. USA.
24. Krishnan DK, Trang T. Cromwell HC and Meserve LA. (2007) Perinatal PCB exposure disrupts motor skills and hormone regulation in Sprague-Dawley rats: A possible model for autism. *The Ohio Journal of Science* Vol 107 (1) A-17.
25. Miller EJ, Skopin M., Molitor SC and Cromwell HC (2007) Functional neuroanatomical and physiology of reward processing in *rattus norvegicus*. *The Ohio Journal of Science* Vol. 107 (1) A-18.
26. Beckwith TJ, McFarland AM, Greenwald M., Harmon KM, Meserve LA. And Cromwell HC (2007) Effects of perinatal perturbations on social communication in the rat model. *The Ohio Journal of Science* Vol 107 (1) A-17.
27. Harmon, K.M., Burgdorf, J., Moskal, J.R., Kroes, R.A., Panksepp, J. and Cromwell H.C. (2006) Behavioral phenotyping of rats selectively bred for differential levels of 50 kHz ultrasonic vocalizations. *Society for Neuroscience Abstracts* 32, Atlanta, GA., CD-ROM.
28. Horinek M., Johnson A., McKnight L., Asbrock C., Cromwell H.C. and Meserve L.A. (2006) Effects of perinatal polychlorinated biphenyl exposure on the development of social behavior in the rat. *The Ohio Journal of Science*, Vol 106 (1) p. A-13
29. Mears, R.P. Boutros N.N. and Cromwell H.C. (2006) Systemic haloperidol and baclofen strengthen inhibitory sensory gating of medial prefrontal cortex local field potentials in the rat. *Biological Psychiatry* 59 (8): 260S-260S 851 Suppl. S APR 15 200
30. Klein A., Mears, R.P. and Cromwell H.C. (2005) A neurophysiological analysis of inhibitory gating in the striatum of freely moving rats. *Society for Neuroscience Abstracts* 31, CD-ROM.
31. McKnight L, Johnson A., Hornek M., Cromwell H.C. and Meserve L.A. (2005) Effects of polychlorinated biphenyls on social behavioral development. *Society for Neuroscience Abstracts* 31, CD-Rom.
32. Burgdorf, J., Harmon, KM, Cromwell, HC and Panksepp J. (2005) Converging evidence the 50 kHz ultrasonic vocalizations in rats are closely linked to reward and the mesolimbic dopamine system. *Society for Neuroscience Abstracts* 31, Washington D.C., CD-ROM.
33. Johnson, A., McKnight L., Burt, S., Horinek, M., Asbrock C., Cromwell H.C. and Meserve L.A. (2005) Effects of perinatal polychlorinated biphenyls on behavior. Ohio Academy of Sciences, April 4th in Bowling Green, Ohio: *The Ohio Journal of Science*, 105 (1) p. A-6.
34. Ward R.J., Harmon K. and Cromwell H.C. (2005) Effects of prenatal stress on the development of social behavior. Ohio Academy of Sciences Annual Meeting. *The Ohio Journal of Science* 105 (1) p. A-18.
35. Klein A., Mears, R.P. and Cromwell H.C. (2005) Gating of audition in the striatum. Ohio Academy of Sciences, *The Ohio Journal of Science* 105,(1) p. A-20
36. Mears R.P and Cromwell H.C. (2004) Influence of fear conditioning on inhibitory gating in rat medial prefrontal cortex. *Society for Neuroscience Abstracts* 30, San Diego, CA. CD-ROM.
37. Cromwell H.C. and Mears R.P. (2003) Neurophysiology of inhibitory gating: A fundamental process of attention and emotion. *American Psychological Society Abstracts* 15, Atlanta, USA.
38. Cromwell H.C., Wilson A.G. and Mears R.P. (2003) Influence of sensory-specific satiety on striatal activity. *Society for Neuroscience Abstracts* 29, New Orleans, USA.
39. Mears R.P. and Cromwell H.C. (2003) Inhibitory gating in the prefrontal cortex of rat: single units and local field potentials. *Society for Neuroscience Abstracts* 29, New Orleans, USA.

40. Cromwell H.C., Azarov A., Anstrom K and Woodward D.J. (2001) Neural responses in mesoamygala circuits during associative learning. *Society for Neuroscience Abstracts 27*, CD ROM San Diego, CA.
41. Woodward D.J., Cromwell H.C., Anstrom K., Glasier M.M. and Azarov A. (2001) Inhibitory gating of auditory stimuli by single neurons in the mesoamygdala and mesocortical circuits of the awake, behaving rat. *Society for Neuroscience Abstracts 27* CD ROM.
42. Anstrom K., Cromwell H.C., Azarov A., Chang J., Lyons D., Glasier M.M. and Woodward D.J. (2001) Behavioral, electrophysiological and pharmacological responses of ventral tegmental area neurons in awake, behaving rats. *Society for Neuroscience Abstracts 27*, 1303.
43. Watanabe M. Cromwell HC, Tremblay L., Hollerman JR, Hikosaka K. and Schultz W. (2001) Differential expectations of outcomes reflected in primate behavioral reactions. *Society for Neuroscience Abstracts 27*, 2199.
44. Cromwell H.C. and Schultz W. (2000) Reward discrimination in primate striatum II. Reward magnitude. *Society for Neuroscience Abstracts 26*, 1501, New Orleans, La.
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66. Cromwell H.C. and K.C. Berridge (1991) Systemic haloperidol decreases the hyperkinetic paw treading induced by ventromedial striatopallidal lesions in the rat. *Society for Neuroscience Abstracts* 17, 1220. New Orleans, La.
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X. INVITED SEMINARS, COLLOQUIA AND CONFERENCE KEYNOTE SPEECHES

1. *Inhibitory gating in the brain: from single units to field potentials*. NeuroDay Symposium, University of Toledo Medical School, February 20th 2009.
2. *Using brain activity to understand motivation (Keynote Address)* at the 20th Annual Ohio Undergraduate Research Conference. Baldwin-Wallace College in Berea, Ohio. April 8th, 2006.

3. *Information flow through the basal ganglia* (Seminar) Bioengineering Research Group, College of Engineering, University of Toledo, Toledo, Ohio April 7th, 2006. Host: Dr. Scott Molitor
4. *Biomarkers for hunger in the basal ganglia* (Seminar) Department of Psychology, Gettysburg College, Gettysburg, PA. March 3rd, 2006 Host: Dr. Stephen Sivi
5. *Influence of internal state changes on reward-related activity in striatum* (Seminar) Bioengineering Program, University of Toledo, Toledo, OH. November, 2005. Host: Dr. Brent Cameron
6. *Relative reward evaluation and striatal neurophysiology* (Seminar) Genome Research Institute, University of Cincinnati School of Medicine, Cincinnati, OH, August, 2005. Host: Dr. Jeffrey Johnson
7. *Reward contrast and basal ganglia activity* (Biopsychology Colloquium) Department of Psychology, University of Michigan, Ann Arbor, MI., April, 2005. Host: Dr. Kent Berridge
8. *An investigation of the neurophysiology of expectation* (Seminar) Department of Physiology and pharmacology, Wake Forest University School of Medicine, Winston-Salem, NC, February 2001 Host: Dr. Donald Woodward
9. *Neural correlates of reward expectation in primate striatum* (Neuroscience Seminar Series) Department of Psychology, Bowling Green State University, Bowling Green Ohio January Host: Dr. Jaak Panksepp
10. *Striatal neural activity and expectancy theory* (Seminar) Department of Psychology, University of Wisconsin-Madison, Madison, WI. January 2001 Host: Dr. Brad Postle
11. *Basal ganglia: Anatomy to Function* (A Short Course) Department of Neurobiology, Janus Pannonius University, Pecs, Hungary, Oct., 1999 Host: Dr. Istvan Hernadi
12. *Striatal activity and drugs of abuse* (Seminar) Institute of Physiology, University of Fribourg, Fribourg, Switzerland June, 1999 Host: Dr. Eric Rouillier
13. *Influence of reward on behavior-related neuronal activity in primate striatum* (Seminar) Psychology Department, Wayne State University Detroit Michigan Feb. 1999 Host: Dr. George Borszcz
14. *Reward Processing and striatal single neurons* (Seminar) Department of Psychology, University of Georgia, Athens, GA, Feb. 1999 Host: Dr. Philip V. Holmes
15. *Reward discrimination by single striatal neurons* (Seminar) Centre Nationale Recherche Scientifique (CNRS) Marseilles France, July, 1998. Host: Dr. Paul Apicella
16. *Functional heterogeneity of striatal and pallidal subregions* (Seminar) Behavioral Toxicology Division, Institute for Technology Research (ETH) Zurich, Switzerland January, 1998. Host: Dr. Joram Feldon
17. *Pharmacologic mechanisms underlying stereotyped self-injury* (Seminar) Mental Retardation Research Center Annual Retreat, Lake Arrowhead Conference Center, Lake Arrowhead, California, Oct. 1995. Host: Dr. Michael Levine

XI. SERVICE

A. Department

1. Undergraduate Honors Committee 2004-present
2. Undergraduate Committee
3. Graduate Student Admissions Committee (Neural Sciences Division) 2005-present
4. Public Relations Committee 2006-present
5. University Preview Day Participant for the Department 2006-2008

B. John Paul Scott Center for Neuroscience, Mind and Behavior

1. Director 2009-present
2. Public Outreach (Planner/Organizer)
 - a. Brain Awareness Week 2009 (Dr. Thomas Zoeller)
 - b. Brain Awareness Week 2008 (Dr. Michael Zigmond)
 - c. Brain Awareness Week 2007 (Drs. Henry Heffner and Ani Patel)
 - d. Brain Awareness Week 2006 (Drs. Steven Small and Brooke Hallowell)
 - e. Brain Awareness Week 2004 (Dr. Luke Tsai, Speaker)
 - f. Brain Awareness Week 2003 (Dr. Terry E. Robinson, Speaker)
3. Symposium Organizer
 - a. JP Scott Lectureship 2007 (Stephen Porges, Speaker)
 - b. JP Scott Lectureship 2005 (Larry Young, Speaker)
 - c. JP Scott Lectureship 2003 (Ann E. Kelley, Speaker)
4. Committees
 - a. Neuroscience Curriculum Committee

C. University

1. Institutional Animal Care and Use Committee Jan 2008 to present
2. Intercollegiate Athletics Committee Academic Year 2005-2006, 2008-present
 - a. Research Subcommittee
 - b. Public Relations Subcommittee
3. The Distinguished Thesis Award Review Committee
4. Academic Honesty Committee (Sept 2008- present)
5. Faculty Grievance Committee (Sept 2008-present)
6. Broadcasting Advisory Committee Year 2006-2007
7. Planning Committee for the Annual BGSU Research Conference
8. Faculty Research Committee for Sponsored Programs and Research Academic Year 2003-2004
9. Hiring Committee for Animal Facilities Department (Animal Technician Position) December 2003

D. Community

1. Lunatic House Committee for the Wood County Historical Center and Museum- planning and designing new permanent exhibit. Organizing Annual Mental Health Lecture Series (guest speakers for the annual event are in parentheses)
 - a. Volunteer Museum Guide for Heritage Days Festival, June 2009
 - b. Food for Thought in 2007 (Healthy Living Project & Dr. Robert Carels)
 - c. Suicide: History and Prevention in 2006 (Dr. Ellen Anderson)
 - d. Grand Opening Lecture Series in 2004 (Dr. Elliot Valenstein)
2. Chairmen of the Board for The Memorial Foundation for Lost Children (university/community charity organization for children with developmental disabilities with a focus on Autism).

XII. RESEARCH CONSULTANT/REVIEWER

A. Journal reviewer

1. *Behavioral Brain Research*
2. *Biological Psychiatry*
3. *Brain Research*
4. *Developmental Neuroscience*
5. *European Journal of Neuroscience*
6. *Journal of Neuroscience*
7. *Journal of Neuroscience Research*
8. *Nature Protocols*
9. *Neuroscience*
10. *Neuroscience and Biobehavioral Reviews*
11. *Neuroscience Research*
12. *Ohio Journal of Science*
13. *Psychopharmacology*
14. *Physiology and Behavior*
15. *Archives of Environmental Contamination and Toxicology*
16. *Journal of Experimental and Therapeutic Pharmaceuticals*
17. *Journal of Neurophysiology*
18. *Archives of Endocrinology*

B. Book Reviewer

1. Endocrine-Disrupting Chemicals: From Basic Research to Clinical Practice
General and Comparative Endocrinology 160 pp. 1-2
Edited Andrea Gore (Humana Press, 2007)
2. *Psychology in Context* (3rd and 4th Editions) (Allyn and Bacon Publishing House)
3. *Experimental Psychology* 8th Edition (Thomson/Wadsworth Publishers)
4. *Instant Notes on Physiological Psychology* (BIOS Scientific Publishers)

C. Grant/Presentation Reviewer

1. Swiss National Science Foundation: Fonds National Suisse de la Recherche Scientifique
2007 Grant Applications
2. National Science Foundation: Fogarty International Fellowships
2001-2002 Grant Applications
3. Scientific Awards Judge (reviewer)
 - a. Melvin Scholar Judge at The Ohio Academy of Sciences Meeting
107th Ohio Academy of Sciences Meeting, April, 2007
 - b. Research Presentation Judge at The State Science Day
Sponsored by the Ohio Academy of Sciences, May, 2007

XIII. MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- A.** Society for Neuroscience (USA) 1988-pres
- B.** European Neuroscience Association 1997-pres
- C.** American Psychological Society 1989-pres
- D.** Society for Neuroscience (Switzerland) 1997-pres.
- E.** European Brain and Behavior Society 1996-pres
- F.** International Basal Ganglia Society 1997-pres.
- G.** International Behavioral Neuroscience Society 2005-pres.

XIV. HONORS AND AWARDS

- A.** International Research Fellowship Award 1998
Presented by the National Science Foundation (USA)
- B.** Young Foreign Investigator Award 1997
Presented by the International Brain Research Organization
- C.** Donald Marquis Dissertation Award 1993
Presented by The University of Michigan
- D.** National Research Service Award 1991
Presented by the National Institute of Mental Health