



Center for Behavioral Neuroscience Annual Report

Program Year 11

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Director: H. Elliott Albers
Phone: 404.413.5346
Fax: 404.413.5471
E-mail: biohea@gsu.edu

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**Center for Behavioral Neuroscience
Georgia State University
2010 Annual Report**

Director: H. Elliott Albers
Co-Director: Walter Wilczynski
Associate Director: Kelly Stout

I Executive Summary and Research Activities

As a vibrant inter-institutional research and education center headquartered at Georgia State University (GSU), the Center for Behavioral Neuroscience (CBN) continues to coordinate neuroscience research, education, and outreach activities across Atlanta universities and colleges and to link GSU to those institutions in order to leverage our strength in behavioral neuroscience. The CBN has used these connections and capitalized on its strengths and reputation to aggressively pursue new funding opportunities. Since the end of the NSF STC funding in November 2009, CBN has submitted numerous funding proposals and new funding at GSU has already been obtained from NIH, NSF and one private foundation based on CBN's inter-institutional research and education projects.

The CBN provides a model for how institutions with very different histories and missions can work together to create a vibrant community of collaborating investigators. This remarkable accomplishment maximizes research productivity and provides the ideal environment for preparing the next generation of scientists to meet the challenges of practicing interdisciplinary science in a diverse society.

The primary goal of the CBN at this stage is to leverage the significant assets of the CBN developed over the last 12 years into substantial new resources for research and education that will allow Georgia State to be the leading institution in behavioral neuroscience. To this end, the leadership of the CBN has submitted a formal proposal to the Provost of Georgia State University for the establishment of the CBN as a University-Level Research Center. This will institutionalize CBN at GSU with a clear administrative structure, a physical presence on campus, and mechanism of support tied to CBN's success, e.g. external research and education funding. This approach will not only substantially enhance CBN's ability to be a magnet for bringing new inter-institutional funding to GSU, it will serve to increase the funding brought in by the large number of CBN faculty at Georgia State by expanding the scope and depth of the research and education programs taking place on campus.

II Center Educational Activities

A. BRAIN Undergraduate Program

In the second year of a major NIH grant-funded endeavor that enhances the undergraduate summer research program, BRAIN, Dr. Kyle Frantz, Associate Professor of Neuroscience at Georgia State University continued to lead a team of investigators analyzing how to maximize outcomes from summer neuroscience research experiences. This project specifically compares the traditional BRAIN summer experience (known as

the AM-apprenticeship model-) with the CLM- Collaborative Learning Model-which places BRAIN Fellows into teams of 3 and 4. These teams work on the development of a research question and grant proposal after several weeks of neuroscience laboratory experiences on a variety of topics and research skills. The NIGMS support allowed an expansion of the participant total to 37 students in BRAIN this summer, 5 of whom were funded in part by an ARRA grant supplement to the Yerkes National Primate Research Center program grant, and 3 of whom were funded in part by their home institution MARC programs. This NIGMS grant builds upon Dr. Frantz's BRAIN 2005-2006 pilot program; the data from that has been reported in prior NSF annual summaries provided by the CBN.

As in past years, members of the UEC supported the BRAIN applicant selection process. We have developed a systematic strategy to build a critical mass of undergraduate students (especially students from groups currently underrepresented in the sciences) interested in careers in behavioral neuroscience. Our strategy continues to include hosting recruitment events at our partner institutions, recruiting widely through specially targeting departments in other colleges and universities, recruiting via on-line mechanisms such as Facebook, and by providing academic-year undergraduate mentoring and research opportunities in the labs of CBN faculty. This approach has proven to be a successful model for recruiting students to behavioral neuroscience research experiences and stands as an important interface to the new and extant behavioral neuroscience concentrations, minors and majors at Center institutions.

More than 300 students applied for BRAIN 2010 and 285 files were reviewed (incomplete applications were not reviewed). Thirty-six participants were invited as Fellows and almost 60 were waitlisted. (Nine originally waitlisted applicants were eventually invited and accepted.) The Fellows in BRAIN 2010 included:

- 23 female and 13 male students
- Self-identified Ethnicity: Asian Descent/Asian American – 3 (8%), Caucasian – 11 (31%), All minority (Hispanic, Afr-Amer, Native Amer) – 18 (50%), Other – 2, with 2 electing not to provide information (11%).
- Academic Year: freshman – 9; sophomore – 11; junior – 8; seniors – 8

The BRAIN program began with a one-week intensive orientation during the last week of May. Fellows then worked daily in research labs (either in their mentor's lab if they were part of the AM or in common labs at Georgia State University if they were part of the CLM). All Fellows met once a week on Thursdays at Emory University for half-day professional development workshops. Topics included: bioethics, preparation for graduate school, scientific entrepreneurship, poster and paper preparation and literature researching tools in the library. The summer BRAIN program culminated with a Research Symposium on August 4 where each Fellow had the opportunity to present his/her research during a poster session; a closing luncheon was held on August 6th. Posters were judged in the open symposium and awards for best research were provided at the closing luncheon.

C. Teacher Professional Development Workshop

Dr. Laura Carruth facilitated a one-week extended contact professional development workshop held at Zoo Atlanta from June 7th-11th 2010, for 16 6th -12th grade Georgia science teachers (10, female, 6 male and 43% minority). This teacher workshop requires extended contact and includes two single-day follow-up sessions. The Fall follow-up was held on Dec. 4, 2010 and mid-Spring follow-up will be scheduled for sometime in April 2011. The workshop concentrates on the neuronal and endocrine controls of behavior focusing on examples from maternal, reproductive, aggressive and social behavior. We provided the teachers with college level content in addition to having them participate in discussions with zoo researchers, spend time observing zoo animals and develop and use ethograms. In addition, the fall follow-up included a discussion on the unique needs of ESOL (English as a Second Language) students in science classrooms. The workshop awards either 4 or 5 Professional Learning Units (PLUs) depending on the depth of the lesson plan developed and the number of additional contact hours they participate in. All Georgia teachers need to earn PLU credits in order to maintain their certification. In addition, Dr. Carruth has been visiting the classes of most of the teachers in the Fall 2010 and will continue to do so in Spring 2011 as the teachers present their lesson plans to collect data on lesson plan development and how the material are used in the classroom. Teachers were supplied with an animal behavior textbook, a student workbook that they can use in their classrooms and a notebook of workshop material developed by L. Carruth. In addition, teachers were paid a \$300 stipend for the development of a lesson plan and to purchase supplies. Pre- and post-material content and science attitudes evaluations were filled out on the first and last day of the workshop and this data is currently being analyzed.

III Center's Other Activities and Outputs

A. Partner Institutions, Organizations and Members

Georgia State University:	25 faculty; 6 postdocs; 19 grad. students
Emory University:	34 faculty; 11 postdocs; 17 grad. students
Georgia Institute of Technology:	8 faculty; 3 grad. students
Morehouse School of Medicine:	4 faculty; 1 postdoc
Morehouse College:	4 faculty
Spelman College:	5 faculty
Clark Atlanta University:	2 faculty
Agnes Scott College:	1 faculty
Zoo Atlanta:	2 faculty
TOTAL MEMBERSHIP (140):	85 faculty; 18 postdocs; 37 grad. students

B. Placement of CBN Graduate Scholars and Postdoc Fellows (since 2000)

Graduate Scholar Placements (73 total scholars):

- 46 graduate scholars have completed degrees: 34 females, 9 minority
 - 33 in research postdocs, 3 tenure track faculty, 1 non-tenured scientist, 6 in alternative science careers, 3 MD program/residency
- 5 transferred to other grad or medical programs
- 5 completed MS degree and left graduate training
- 6 dropped out of program before receiving a degree
- 11 remain active in graduate programs

Postdoc Fellows Placements (33 total fellows):

23 postdoc fellows have gone (of 33): 11 females, 3 minority

10 tenure track faculty, 3 research faculty, 7 alternative science careers, 1 in another postdoc, 2 no longer in science

10 remain active in the CBN

C. CBN activities and events for 2009-2010

1. Graduate student exchange with Keck Center and CISAB – January, April
2. Co-sponsor Southeast NerveNet 2010 - March
3. Co-sponsor workshop on “Neuronal Bursting Activity” - April
4. Spring symposium – Neuroscience of Positive Emotions - April
5. Brain EXPO - April
6. BRAIN undergraduate research program – summer
7. Teacher Professional Development workshops – June
8. Ongoing collaborations on research project plans for Positive Emotions theme

D. CBN Media placements for 2009-2010

December 2009

Genetically modified prairie voles may illuminate the human condition

http://www.economist.com/node/15172631?story_id=15172631

Zoe Donaldson

January 2010:

“The Human Spark” a three-part television series hosted by Alan Alda aired in January 2010 and featured Lisa Parr’s primate research.

<http://www.pbs.org/wnet/humanspark>

New research group to focus on positive human behaviors

<http://www.gsu.edu/39724.html>

General CBN

Brain Scientists Extend Map of Fear Memory Formation

<http://www.sciencedaily.com/releases/2010/01/100127134253.htm>

Kerry Ressler

Finding Could Improve Treatment of Anxiety Disorders

<http://shared.web.emory.edu/whsc/news/releases/2010/01/brain-scientists-extend-map-of-fear-memory-formation.html>

Kerry Ressler

The above story also ran:

<http://www.physorg.com/news183819726.html>

<http://esciencenews.com/articles/2010/01/27/brain.scientists.extend.map.fear.memory.formation>

February 2010:

Early life nurturing impacts behavior

<http://timesofindia.indiatimes.com/life-style/relationships/parenting/Early-life-nurturing-impacts-behaviour/articleshow/4958265.cms>

Larry Young

June 2010:

Emory neuroscientists wins award for translational neuroscience

<http://shared.web.emory.edu/whsc/news/releases/2010/06/emory-neuroscientist-wins-award-for-translational-neuroscience.html>

Helen Mayberg

July 2010:

Innovative Treatments for PTSD and Traumatic Brain Injury Presented to Veterans Affairs Committee

<http://shared.web.emory.edu/whsc/news/releases/2010/07/treatments-for-ptsd-and-traumatic-brain-injury-for-veterans.html>

Barbara Rothbaum, Kerry Ressler

September 2010:

GSU scientist awarded NSR CAREER grant to study decision making

<http://www.gsu.edu/44547.html>

Mukesh Dhamala

Atlanta universities awarded \$1.7 million to increase neuroscience doctorates

<http://www.gsu.edu/44514.html>

Kyle Frantz, Chris Goode

Researcher receives grant to help better investigate PTSD in youth.

<http://www.gsu.edu/44439.html>

Erin Tone

GSU researchers tackle obesity

<http://www.gsu.edu/44042.html>

Timothy Bartness

E. CBN publications for 2009-2010 (as reported by members)

*publications of work seeded by CBN

(n=290)

Aggio, J. and C.D. Derby. 2010. Aplysia. In: Encyclopedia of Animal Behavior. Eds., M.D. Breed and J. Moore. Academic Press, Oxford, pp. 107-111.

*Ahern, Todd H., Elizabeth A.D. Hammock, and Larry J. Young (2010). Parental division of labor, coordination, and the effects of family structure on parenting in

monogamous prairie voles (*Microtus ochrogaster*). *Developmental Psychobiology*. In Press.

*Alvarado, M., Kazama A, Zeamer, A., Bachevalier, J. (2010) The effects of selective hippocampal damage on tests of oddity in rhesus macaques. *Hippocampus*, in press.

Andero R, Heldt SA, Ye K, Liu X, Armario A, and Ressler KJ (2010) A small-molecule TrkB receptor agonist, 7,8-dihydroxyflavone, enhances emotional learning. *American Journal of Psychiatry*, in press

Arce M, Michopoulos V, Shepard KN, Ha QC, Wilson ME (2010) Diet choice, cortisol reactivity, and emotional feeding in socially housed rhesus monkeys. *Physiology and Behavior* (in press).

*Bachevalier, J. The Amygdala. In: E Hollander, A Kolevzon, & J Coyle (eds) *Autism Spectrum Disorder*, American Psychiatric Publishing, Arlington, VA, 2010, in press.

Balsters, J.H., Cussans, E., Diedrichsen, J., Phillips, K.A., Preuss, T.M., Rilling, J.K., and Ramnani, N. (2010). Evolution of the cerebellar cortex: the selective expansion of prefrontal-projecting cerebellar lobules. *Neuroimage* 49, 2045-2052.

*Bartness, T. J., Vaughan, C. H. and Song, C. K. Sympathetic and sensory innervation of brown adipose tissue. *International Journal of Obesity*, in press.

*Basile, B.M., & Hampton, R.R. (2010). Rhesus monkeys (*Macaca mulatta*) show robust primacy and recency in memory for lists from small, but not large, image sets. *Behavioural Processes*, 83, 183-190.

*Been, L. and A. Petrulis (2010). Lesions of the posterior bed nucleus of the stria terminalis eliminate opposite-sex odor preference and delay copulation in male Syrian hamsters: role of odor volatility and sexual experience. *European Journal of Neuroscience*, 32(3): 483-93.

*Been, L. and A. Petrulis (2010). The role of the medial preoptic area in appetitive and consummatory reproductive behaviors depends on sexual experience and odor volatility in male Syrian hamsters. *Neuroscience*, in press.

Ben-Yakar, Adela, Nikos Chronis, Hang Lu, "Microfluidic tools for the analysis of behavior and neural cell physiology in worms", invited review for *Current Opinion in Neurobiology*, 19:561-567, 2009.

*Black, MP, Balthazart, J, Baillien, M, and Grober, MS. (in press, 2010) Rapid increase in aggressive behavior precedes the decrease in brain aromatase, activity during socially mediated sex change in *Lythrypnus dalli*. *General and Comparative Endocrinology*.

Binder EB, Owens MJ, Liu W, Deveau TC, Rush AJ, Trivedi MH, Fava M, Bradley B, Ressler KJ, Nemeroff CB. (2010) Association of polymorphisms in genes regulating the corticotropin-releasing factor system with antidepressant treatment response. *Arch Gen Psychiatry*. 2010 Apr;67(4):369-79.

Blain JC, Mok YF, Kubanek J, Allingham JS (2010) Two molecules of lobophorolide cooperate to stabilize an actin dimer using both their 'ring' and 'tail' region. *Chemistry & Biology* 17:802-807.

*Bliss-Moreau, E., Owren, M. J., & Barrett, L. F. (2010). I like the sound of your voice: Affective learning about vocal signals. *Journal of Experimental Social Psychology*, 46, 557-563.

Blumstein, Daniel T., Luis A. Ebensperger, Loren D. Hayes, Rodrigo A. Vásquez, Todd H. Ahern, Joseph Robert Burger, Adam G. Dolezal, Andy Dosmann, Gabriela González-Mariscal, Breanna N. Harris, Emilio A. Herrera, Eileen A. Lacey, Jill Mateo, Lisa McGraw, Daniel Olazábal, Marilyn Ramenofsky, Dustin R. Rubenstein, Samuel A. Sakhai, Wendy Saltzman, Cristina Sainz-Borgo, Mauricio Soto-Gamboa, Monica L. Stewart, Tina W. Wey, John C. Wingfield, and Larry J. Young. *Frontiers in Behavioral Neuroscience*. (2010) Towards an integrative understanding of social behavior: new models and new opportunities. 4:34.

Bonilha L, de Vries PM, Hurd MW, Rorden C, Morgan PS, Besenski N, Bergmann KJ, Hinson VK (2009) Disrupted thalamic prefrontal pathways in patients with idiopathic dystonia. *Parkinsonism Relat. Disord* 15:64-67

Bonilha L, Halford JJ, Rorden C, Roberts DR, Rumboldt Z, Eckert MA (2009) Automated MRI analysis for identification of hippocampal atrophy in temporal lobe epilepsy. *Epilepsia* 50:228-233

Bonilha L, Eckert MA, Fridriksson J, Hirth VA, Moser D, Morgan PS, Rorden C (2009) Age-related relative volume preservation of the dominant hand cortical region. *Brain Res* 1305:14-19.

Brosnan, SF (2010) Behavioral Development: Timing is everything. *Current Biology* 20(3): R98-100.

Brosnan, SF (in press) What do capuchin monkeys tell us about cooperation? (eds. DR Forsyth & CL Hoyt) in *For the Greater Good of All: Perspectives on Individualism, Society, & Leadership in the Jepson Series on Leadership Studies*. Palgrave Macmillan Publishers

Brosnan, SF (in press) An evolutionary perspective on morality. *Journal of Economic & Behavioral Organization*.

Brosnan, SF (in press) Property in non-human primates. *New Directions for Child & Adolescent Development*.

Brosnan, SF & Bshary, R (2010). "Cooperation & Deception: From Evolution to Mechanisms" Issue 365 of the *Philosophical Transactions of the Royal Society Series B*

Brosnan, SF & Bshary, R (2010) Introduction to Cooperation & Deception: From evolution to mechanisms. *Philosophical Transactions of the Royal Society Series B*, 365, 2593-2598. doi: 10.1098/rstb.2010.0155

Brosnan, SF, Bshary, R, Salwiczek, L (2010) What makes cooperation complex? *Philosophical Transactions of the Royal Society Series B*, 365, 2699-2710. doi: 10.1098/rstb.2010.0154

Brosnan, SF, Houser, D, Xiao, E, Leimgruber, K, Chen, T, & de Waal, FBM (2010) Competing demands of prosociality & equity in monkeys. *Evolution & Human Behavior*. doi:10.1016/j.evolhumbehav.2010.02.003

Brosnan, SF, Talbot, C, Ahlgren, M, Lambeth, SP, & Schapiro, SJ. (2010) Mechanisms underlying the response to inequity in chimpanzees, *Pan troglodytes*. *Animal Behaviour*. doi:10.1016/j.anbehav.2010.02.019

Burke, J.D., Waldman, I.D., & Lahey, B.B. Predictive validity of childhood oppositional defiant disorder and conduct disorder: Implications for DSM-V. *Journal of Abnormal Psychology*, in press.

Busto UE, Redden L, Mayberg H, Kapur S, Houle S, Zawertailo. Dopaminergic Activity in Depressed Smokers: A Positron Emission Tomography Study. *Synapse* 63:681-689, 2009.

Carrasco, M.M., Y.-T. Mao, S.L. Pallas. Inhibitory plasticity underlies visual deprivation-induced loss of retinocollicular map refinement in adulthood. *Eur. J. Neurosci.*, in press.

Castanon-Cervantes O, Wu M, Ehlen JC, Paul KN, Gamble KL, Johnson RL, Besing RC, Menaker M, Gewirtz AT, Davidson AJ (2010) Disregulation of inflammatory responses by chronic circadian disruption. *Journal of Immunology*. In press.

Cattaert D, Delbecque JP, Edwards DH, Issa FA (2010) Social interactions determine postural network sensitivity to 5-HT. *J Neurosci* 30:5603-5616.

Chao L.C., Pa J., Duarte A., Schuff, N., Weiner M.W., Kramer J.H., Miller B.L., Freeman K.M., Johnson J. Patterns of cerebral hypoperfusion in amnesic and dysexecutive MCI. *Alzheimer's Disease and Associated Disorders*, 23(3):245-52, (2009).

Charlton, B. D., Keating, J. L., Kersey, D., Rengui, L., Huang, Y., Swaisgood, R. R. Vocal cues to male androgen levels in giant pandas. *Biology Letters*, in press.

Charlton, B. D., Keating, J. L., Rengui, L., Huang, Y., Swaisgood, R. R. (2010) Female giant panda (*Ailuropoda melanoleuca*) chirps advertise the caller's fertile phase. *Proceedings of the Royal Society of London - Series B.* 277, 1101-1106.

*Charlton, B. D., Zhang, Z., Snyder, R. J. (2010) Giant pandas perceive and attend to formant frequency variation in male bleats. *Animal Behaviour*, 79, 1221-1227.

*Choi DC, Maguschak KA, Ye K, Jang SW, Myers KM, Ressler KJ. Prelimbic cortical BDNF is required for memory of learned fear but not extinction or innate fear. *Proc Natl Acad Sci U S A*, 2010 Feb 9;107(6):2675-80.

*Choi, D.C., Rothbaum, B.O, & Ressler, K.J. (in press). Pharmacological Enhancement of Behavioral Therapy: Focus on Posttraumatic Stress Disorder: Current Topics in Behavioral Neurosciences: Behavioral Neurobiology of Anxiety and Its Treatment. In Stein and Steckler (Eds) Behavioral Neurobiology of Anxiety and its Treatment, Current Topics in Behavioral Neurosciences (CTBN) series Springer, Heidleberg.

*Chu, Ye, Gloria G. Huddleston, Andrew N. Clancy, Ruth B. S. Harris and Timothy J. Bartness. Epididymal fat is necessary for spermatogenesis, but not testosterone 1 production or copulatory behavior. *J. Endocrinology* (in press).

Cofer, D., Cymbalyuk, G., Heitler, W.J., and Edwards, D.H. (2010) Neuromechanical simulation of the locust jump. *J. Exp. Biol.* 213: 160-168.

Cofer, D., Cymbalyuk, G., Reid, J. Zhu, Y., Heitler, W.J., and Edwards, D.H. (2010) AnimatLab: A 3-D graphics environment for neuromechanical simulations. *Journal of Neuroscience Methods.* 187(2): 280-288.

Cofer, D., Heitler, W.J., and Edwards, D.H. (2010) The control of tumbling during the locust jump. *J. Exp. Biol.* 213: 3378-3387.

Cohen SP, Vincent KK, Halstead-Nussloch GE, Hatt H, Kubanek J, McCarty NA (2010) RL-TGR, a co-receptor involved in aversive chemical signaling. *Proceedings of the National Academy of Sciences* 107:12339-12344

*Cooke, Bradley. Synaptic reorganization of the medial amygdala during puberty. Accepted for publication September 2010 in *Journal of Neuroendocrinology*

*Cooper, M. A.; Huhman, K. L. Blocking corticotropin-releasing factor-2, but not corticotropin-releasing factor-1 receptors or glucocorticoid feedback, disrupts the development of conditioned defeat. *Physiology and Behavior*, in press, 2010.

Crane, Matthew, Kwanghun Chung, Jeffrey Stirman, Hang Lu, "Microfluidics-enabled phenotyping, imaging, and screening of multicellular organisms", invited review for *Lab on a Chip*, 10:1509 – 1517, 2010.

*Dailey, M. J. and Bartness, T. J. An intact arcuate nucleus is not necessary for food deprivation-induced increases in food foraging and hoarding. *Brain Research*, 1323:94-108, 2010.

Davis B, Christie J, Rorden C (2009) Temporal order judgments activate temporal parietal junction. *J. Neurosci* 29:3182-3188

*Davis, J. K., Lowman, J. J., Thomas, P. J., ten Hallers, B. F. H., Koriabine, M., Huynh, L. Y., Maney, D. L., de Jong, P. J., Martin, C. L. NISC Comparative Sequencing Program, Thomas, J. W. (2010). Evolution of a Bitter Taste Receptor Gene Cluster in a New World Sparrow. *Genome Biology and Evolution*, 2, 358-370.

*Davis, J.K., Thomas, P.J. NISC Comparative Sequencing Program, Thomas, J.W. A W-linked palindrome and gene conversion in New World sparrows and blackbirds. *Chromosome Research*, 18:543-553, 2010.

*Davis, M. Facilitation of extinction and psychotherapy by D-cycloserine. *Journal of Psychology* (in press).

*Day, D.; Cooper, M. A.; Markham, C. M.; Huhman, K. L. NR2B subunit of the NMDA receptor in the basolateral amygdala is necessary for the acquisition of conditioned defeat in Syrian hamsters. *Behavioral Brain Research*, in press, 2010.

de Haan B, Rorden C (2010) Similarity Grouping and Repetition Blindness are Both Influenced by Attention. *Front Hum Neurosci* 4(20): 1-12.

Demas, G.E., Soma, K.K. and Albers, H.E. DHEA and aggression. In: DHEA (Dehydroepiandrosterone) in Human Health and Aging. In: Watson, R.R. (Ed.) Taylor and Francis Group LLC, 2010, in press.

Dindo, M., Stoinski, T., & Whiten, A. Observational learning in orangutan cultural transmission trains. *Biological Letters*, in press.

Ditzen, B., Hahlweg, K., Fehm-Wolfsdorf, G., & Baucom, D. (2010). Assisting Couples to Develop Healthy Relationships: Effects of Couples Relationship Education on Cortisol. *Psychoneuroendocrinology*, in press.

Ditzen, B. & Beinder, E. (2010). Infertility and Pregnancy-Complications. In U. Ehlert & R. von Kaenel (Eds.). *Psychoendocrinology and Psychoimmunology*. Berlin: Springer, in press.

Ditzen, B. & Loucks, T., & Berga, S. (2010). Women and Infertility, In V. Maizes & T. Low Dog (Eds.). *Integrative Women's Health*. In: Weil, A.: *The Integrative Medicine Library Series*. Women's Health. Oxford, Oxford University Press, pp. 250-270.

Duarte A., Knight R.T., Henson R.N.A., Graham K.S. The orbito-frontal cortex is necessary for temporal context memory. *Journal of Cognitive Neuroscience*, 22(8):1819-31, (2010).

Edwards, D.A., Kurlander, L.S. (2010). Women's intercollegiate volleyball and tennis: Effects of warm-up, competition, and practice on saliva levels of cortisol and testosterone. *Hormones and Behavior* 58, 606-613.

Edwards, D.H. (2010) Neuromechanical simulation. *Frontiers in Behavioral Neuroscience* 4. pii: 40.

*Ehlen, J.C., Hummer, D.L., Paul, K.N. and Albers, H.E. GABA involvement in the circadian regulation of sleep. In: Monti, J.M., Pandi-Perumal, S.R. and Mohler, H. (Eds) *GABA and Sleep – Molecular, Functional and Clinical Aspects*, Springer Basei, pp.303-324, 2010.

Elango N, Hunt BG, Goodisman MAD, and Yi SV. 2009. DNA methylation is widespread and associated with differential gene expression in castes of the honeybee *Apis mellifera*. *Proceedings of the National Academy of Sciences USA*. 106:11206-11211.

Fani, N., Bradley, R. B., Ressler, K., & McClure-Tone, E. B. (in press; epub online: January 2010). Attention Bias in Adult Survivors of Childhood Maltreatment with and without Posttraumatic Stress Disorder. *Cognitive Therapy and Research*.

Farb NAS, Anderson AK, Mayberg H, Bean J, McKeon D, Segal ZV. Minding one's emotions: Mindfulness Training alters neural expression of sadness. *Emotion*, 2010 Feb;10(1):25-33.

Fisher M., et.al. for the STAIR Group. Update of the Stroke Therapy Academic Industry Roundtable (STAIR) Preclinical Recommendations (2009). *Stroke*. 40(6):2244-50.

Flessner, C. A., Penzel, F., Trichotillomania Learning Center Scientific Advisory Board, & Keuthen, N.J. (2010). Current treatment practices for children and adults with trichotillomania: Consensus among experts. *Cognitive and Behavioral Practice*. 17, 290-300.

Freeman, A., Bowers, M., Vrailas-Mortimer, A., Timmerman, C., Roux, S., Ramaswami, M., and Sanyal, S. (2010). A new genetic model of activity-induced Ras signaling dependent pre-synaptic plasticity in *Drosophila*. *Brain Research*.

Fridriksson J, Baker JM, Whiteside J, Eoute D, Moser D, Vesselinov R, Rorden C (2009) Treating visual speech perception to improve speech production in nonfluent aphasia. *Stroke* 40:853-858.

Fridriksson J, Moser D, Ryalls J, Bonilha L, Rorden C, Baylis G (2009) Modulation of frontal lobe speech areas associated with the production and perception of speech movements. *J. Speech Lang. Hear. Res* 52:812-819.

Galindo-Leon, E.E., and R. C. Liu, Predicting stimulus-locked single unit spiking from cortical local field potentials in awake mice, *Journal of Computational Neuroscience*, in press.

*Gerardi, M., Kerry Ressler, K., & Rothbaum, B.O. Combined Treatment of Anxiety Disorders. In *Textbook of Anxiety Disorders, Second Edition*. Edited by Dan Stein, Eric Hollander and Barbara Rothbaum. New York: APA Press, 99 147-156. 2009.

Gillespie CF, Bradley B, Mercer K, Smith AK, Conneely K, Gapen M, Weiss T, Schwartz AC, Cubells JF, Ressler KJ. Trauma exposure and stress-related disorders in inner city primary care patients. *Gen Hosp Psychiatry*. 2009 Nov-Dec;31(6):505-14.

Gläscher J, Tranel D, Paul LK, Rudrauf D, Rorden C, Hornaday A, Grabowski T, Damasio H, Adolphs R (2009) Lesion mapping of cognitive abilities linked to intelligence. *Neuron* 61:681-691

*Glover, E., Ressler, K. J. and Davis, M. Effects of rapamycin on context vs. cue conditioning using the fear-potentiated startle paradigm. *Learning and Memory* (In press).

Gobrogge, Kyle L., Yan Liu, Larry J. Young, and Zuoxin Wang. (2009). Anterior Hypothalamic Vasopressin Regulates Pair Bonding- and Drug-Induced Aggression in a Monogamous Rodent. *Proceedings of the National Academy of Sciences*. 106(45):19144-9

Guinjoan S, Mayberg H, Costanzo E, Fahrer R, Tenca E, Antico J, Cerquetti D, Smyth E, Leiguarda R, Nemeroff C. Asymmetrical Contribution of Brain Structures to Treatment Resistant Depression as Illustrated by Effects of Right Subgenual Cingulum Stimulation, *J Neuropsych Clin Neurosci*, 22:265-277, 2010.

Gutzler, S.J., Karom M, Erwin, W.D. and Albers, H.E. Arginine-vasopressin and the regulation of aggression in female Syrian hamsters (*Mesocricetus auratus*). *Europ. J. Neurosci.*, 31(9):1655-1663, 201

Gutzler, S.J., Karom, M., Erwin, W.D. and Albers, H.E. Seasonal regulation of social communication by photoperiod and testosterone: Effects of arginine-vasopressin, serotonin, and galanin in the medial preoptic area-anterior hypothalamus. *Behav. Brain Res*, 2010, in press

Habegger. K. M., Heppner, K. M., Geary, N. Bartness, T. J., DiMarchi, R., Tschöp, M. H. The Metabolic Action Profile of Glucagon – Revisited. *Nature Reviews Endocrinology*, in press.

*Hamann, S. The Human Amygdala and Memory, In: The Human Amygdala, Whalen, P.J. & Phelps, E.A. (Eds.). Guilford Press, New York, 2009.

Hamann, S. Towards understanding emotion's effects of memory, *Emotion Review*, 1, 114-115, 2009.

Hamani C, Mayberg H, Snyder B, Giacobbe P, Kennedy S, Lozano AM. Deep brain stimulation of the subcallosal cingulate gyrus for depression: anatomical location of active contacts in clinical responders and a suggested guideline for targeting. *J Neurosurg*. 111:1209-15, 2009.

Hamani C, Snyder B, Laxton A, Holtzheimer P, Maybeg H, Lozano A. Surgical Treatment of Major Depression. *Youmans Textbook of Neurological Surgery*, 6th Edition, Edited by Alterman Ron L. and Lozano Andres M, 2010.

Hampstead, B.M., Stringer, A.Y., Stilla, R.F., Deshpande, G., Hu, X., Moore, A.B., & Sathian, K. (in press). Activation and effective connectivity changes following explicit-memory training for face-name pairs in patients with mild cognitive impairment: A pilot study. *Neurorehabilitation and Neural Repair*.

Hampstead, B.M., Lacey, S., Ali, S., Phillips, P.A., Stringer, A.Y., & Sathian, K. (2010). Use of complex three dimensional objects to assess visuospatial memory in healthy individuals and patients with unilaterally amygdalohippocampectomy. *Epilepsy & Behavior*, 18, 54-60.

Hampstead, B.M., Libon, D.J., Moelter, S.T., Swirsky-Sacchetti, T., Scheffer, L., Platek, S.M., & Chute, D (2010). Temporal Order Memory Differences in Alzheimer's disease and Vascular Dementia. *Journal of Clinical and Experimental Neuropsychology*, 32(6), 645-654.

Harden, K. P., D'Onofrio, B. M., Van Hulle, C. A., Turkheimer, E., Rodgers, J. L., Waldman, I.D., & Lahey, B. B. (in press). Population density and youth antisocial behavior. *Journal of Abnormal Child Psychology*.

Haroon E, Pagnoni G, Heim C, Berns GS, Mayberg H. Brain Imaging in Psychopharmacology, in *American Psychiatric Publishing Textbook of Psychopharmacology*, Fourth Edition Edited by Schatzberg, Alan F., M.D., and Charles B. Nemeroff, M.D., Ph.D.. American Psychiatric Publishing, Inc, New York, 2009.

Hazra, R., Guo, J.d., Ryan, S.J., Jasnow, A.M. Rainnie, D.G. Genetic verification of physiologically defined cell types in the anterolateral bed nucleus of the stria terminalis: A single cell RT-PCR study. In press

Heldt SA, Ressler KJ. (2010) Amygdala-specific reduction of alpha1-GABAA receptors disrupts the anticonvulsant, locomotor, and sedative, but not anxiolytic, effects of benzodiazepines in mice. *J Neuroscience* 26;30(21):7139-51

Hill, J.L., Patel, S., Gu, X., Seyedali, N.S., Bachevalier, J., Sereno, A.B. (2010) Social orienting: reflexive versus voluntary control. *Vision Research*, 50:2080-2092.

Hojahmat, M., Horton, D.B., Norrholm, S.D., Miller, D.K., Grinevich, V.P., Deaciuc, A.G., Dwoskin, L.P., & Crooks, P.A. (2010). Lobeline esters as novel ligands for neuronal nicotinic acetylcholine receptors and neurotransmitter transporters. *Bioorganic and Medicinal Chemistry*, 18(2):640-9.

Holtzheimer P and Mayberg HS. The Cingulate Cortex as Organizing Principle in Vogt BA, (edt), *Psychiatric Disease in Cingulate, Neurobiology and Disease* Chapter 11 Elsevier, 2009.

Holtzheimer P and Mayberg HS. The Role of the Cingulate Gyrus in Depression: Review and Synthesis of Imagng Data in Vogt BA (edt), *Cingulate, Neurobiology and Disease* Chapter 24, Elsevier, 2009.

Holtzheimer P and Mayberg HS. *Neuropsychiatric Aspects of Mood Disorders in Essential of Neuropsychaitry and Behavioral Neuroscience*, 2nd Edition ed Yudofsky SC, Hale RE. American Psychiatric Press, Washington DC, 2010.

Holtzheimer P and Mayberg HS. Neuroimaging of Mood Disorders: Commentary. in *Understanding Neuropsychiatric Disorders: Insights From Neuroimaging*, edited by Martha E. Shenton and Bruce I. Turetsky. Cambridge U Press, Boston, 2010.

Hunt BG, Wyder S, Elango N, Werren JH, Zdobnov EM, Yi SV, and Goodisman MAD*. 2010. Sociality is linked to rates of protein evolution in a highly social insect. *Molecular Biology and Evolution*. 27:497-500. Recommended by Faculty of 1000 Biology.

*Huynh, L. Y., Maney, D. L., Thomas, J. W. (2010). Chromosome-wide linkage disequilibrium caused by an inversion polymorphism in the white-throated sparrow. *Heredity*, in press.

*Huynh, L.Y., Maney, D.L, Thomas, J.W. Contrasting population genetic patterns within the white-throated sparrow genome (*Zonotrichia albicollis*). *BMC Genetics*, in press.

Jang SW, Liu X, Chan CB, France SA, Sayeed I, Tang W, Lin X, Xiao G, Andero R, Chang Q, Ressler KJ, Ye K. Deoxygedunin, a natural product with potent neurotrophic activity in mice. *PLoS One*. 2010 Jul 13;5(7):e11528.

Jarkas, Nachwa, Ronald J. Voll, Larry Williams, Mark M. Goodman, Validation of two fluoro-analogues of *N,N*-dimethyl-2-(2'-amino-4'-hydroxymethyl-phenylthio)benzylamine as serotonin transporter imaging agents using microPET. *Nuclear Medicine and Biology*, 337: 593-603, 2010.

Jarkas, Nachwa, Ronald J. Voll, Larry Williams, Vernon M. Camp, and Mark M. Goodman. *R,S-Anti- 1-Amino-2-[¹⁸F]Fluorocyclopentyl-1-Carboxylic Acid: Synthesis from Racemic 2-Benzoyloxycyclopentanone and Biological Evaluation for Brain Tumor Imaging with Positron Emission Tomography*. *Journal of Medicinal Chemistry*, 53: 6603–6607, 2010.

Jasnow, A.M., and Ressler, K.J. Interpersonal Violence as a Mediator of Stress-Related Disorders in Humans. In: *Formative Experiences*, Worthman, Plotsky, Schechter, and Cummings (Eds.) Cambridge University Press.

Johnson, A; Wheaton, L.A., Shinohara, M. Attenuation of Corticomuscular Coherence with Additional Motor or Non-motor Task. *Clin Neurophysiol*; in press

*Jovanovic, T., Norrholm, S.D., Blanding, N.Q., Davis, M., Duncan, E., Bradley, B., Ressler, K. (2010). Impaired fear inhibition is a biomarker of PTSD but not depression. *Depression and Anxiety*, 27, 244-251

Jovanovic, T., Norrholm, S.D., Fennell, J.E., Keyes, M., Fiallos, A., Myers, K.M., Davis, M., & Duncan, E.J. (2009). Posttraumatic stress disorder may be associated with impaired fear inhibition: relation to symptom severity. *Psychiatry Research*, 167(1-2), 151-60.

Jutras, M.J. and Buffalo, E.A. (2010). Synchronous neural activity and memory formation. *Current Opinion in Neurobiology*. 20:150-5.

Karnath H, Rorden C, Ticini LF (2009) Damage to white matter fiber tracts in acute spatial neglect. *Cereb. Cortex* 19:2331-2337

Kamio, M., T.V. Grimes, M.H. Hutchins, R. van Dam, and C.D. Derby. 2010. The purple pigment aplysiocyanin in sea hare ink deters predatory blue crabs through their chemical senses. *Anim. Behav.* 80: 89-100.

Kamio, M., L. Nguyen, S. Yaldiz, and C.D. Derby. 2010. How to produce a chemical defense: structural elucidation and anatomical distribution of aplysiocyanin and phycoerythrobilin in the sea hare *Aplysia californica*. *Chemistry & Biodiversity* 7: 1183-1197.

Katz PS, Calin-Jageman RJ, Dhawan A, Frederick C, Guo S, Dissanayaka R, Hiremath N, Ma W, Shen X, Wang HC, Yang H, Prasad S, Sunderraman R, Zhu Y (2010) NeuronBank: a tool for cataloging neuronal circuitry, *Frontiers in Systems Neuroscience* 4:9.

Kearns, M. & Rothbaum, B. O. (in press). Promising Psychological Treatments. To appear in Beck, J.G., & Sloan, D. M. (2012). *The Oxford Handbook of Traumatic Stress Disorders*.

Keating, G. L., M. J. Kuhar, D.L. Bliwise, D.B. Rye (2010) Wake promoting effects of cocaine and amphetamine-regulated transcript (CART). *Neuropeptides* 44(3): 241-6.

Keebaugh, A.C., Thomas, J.W. The evolutionary fate of the genes encoding the purine catabolic enzymes in hominoids, birds, and reptiles. *Molecular Biology and Evolution*, 27:1359-1369, 2010.

Keilholz, SD, M Magnuson, G Thompson. Evaluation of Data-driven Network Analysis Approaches for Functional Connectivity MRI. *Brain Structure and Function*, in press.

Kendal, R.L., Custance, D., Kendal, J.R., Vale, G., Stoinski, T.S., Rakotomalala, N.I., & Rasaminanana, H. Evidence of social learning in wild lemurs (*Lemur catta*). *Learning & Behavior* 38, 220-234, 2010.

Kersey, D.C., Wildt, D.E., Brown, J.L., Snyder, R.J., Huang, Y., Monfort, S.L. (2010). Endocrine milieu of perioestrus in the giant panda (*Ailuropoda melanoleuca*), as determined by non-invasive hormone measures. *Reproduction, Fertility and Development*, 22, 901–912.

Kennett S, Rorden C, Husain M, Driver J (2010) Crossmodal visual-tactile extinction: Modulation by posture implicates biased competition in proprioceptively reconstructed space. *J Neuropsychol* 4:15-32

Keuthen NJ, Rothbaum BO, Welch SS, Taylor C, Falkenstein M, Heekin M, Jordan CA, Timpano K, Meunier S, Fama J, Jenike MA. (in press). A pilot trial of Dialectical Behavior Therapy-enhanced Habit Reversal for trichotillomania. *Depression and Anxiety*.

Kleider, H.M., Parrott, D.J., & King, T.Z. Shooting behavior: How working memory and negative emotionality influence police officer shoot decisions. *Applied Cognitive Psychology*, in press.

Kohli MA; Salyakina D; Pfennig A; Lucae S; Horstmann S; Menke A; Kloiber S; Hennings J; Bradley B; Ressler KJ; Uhr M; Müller-Myhsok B; Holsboer F; Binder EB (2010) Genetic variants in the neurotrophic receptor encoding the BDNF receptor gene NTRK2 are associated with a life history of suicide attempts in depressed patients. *Archives of General Psychiatry*, in press.

Kovacs JL, Hoffman EA, Marriner SM, Rekau JA, and Goodisman MAD. 2010. Environmental and genetic influences on queen and worker body size in the social wasp *Vespula maculifrons*. *Insectes Sociaux*. 57:53-65.

Krajniak, Jan, and Hang Lu, “Long-term High-Resolution Imaging and Culture of *C. elegans* in Chip-Gel Hybrid Microfluidic Device for Developmental Studies”, *Lab on a Chip*, 10: 1862 – 1868, 2010.

*Krebs-Kraft DL, Parent MB. Septal co-infusions of glucose with the benzodiazepine agonist chlordiazepoxide impair memory, but co-infusions of glucose with the opiate morphine do not. *Physiol Behav.* 99(4):438-44, 2010.

Krohmer, R.W., M.H. Boyle, D.I. Lutterschmidt, and R.T. Mason. 2010. Seasonal aromatase activity in the brain of the male red-sided garter snake (*Thamnophis sirtalis parietalis*). *Hormones and Behavior* 58: 485-492.

Krohmer, R.W. and D.I. Lutterschmidt. 2010. Environmental and neuroendocrine control of reproduction in snakes. In: B.G.M. Jamieson (editor), *Reproductive Biology and Phylogeny, Volume 9*. CRC Press, Boca Raton, Florida, in press.

Kuhar, M.J. Contributions of basic science to understanding addiction. *Biosocieties* 5:25-35, 2010.

Kuhar, M.J. Conversation with Michael Kuhar. *Addiction* (Mar 10, 2010) 105:593-600, 2010.

Lacey, S., P. Flueckiger, R. Stilla, M. Lava & K. Sathian. Object familiarity modulates the relationship between visual object imagery and haptic shape perception. *NeuroImage*, 49: 1977-1990, 2010.

Lacey, S., J. Hall & K. Sathian. Are surface properties integrated into visuo-haptic object representations? *European Journal of Neuroscience*, 31: 1882-1888, 2010.

Lagun, D., Manzanares, C., Zola, Stuart M., Buffalo, E.A., Agichtein, E.: VPW: An interactive prototype of a web-based virtual paired comparison cognitive diagnostic test. *Proceedings of the First Association of Computing Machinery (ACM) International Health Informatics Symposium*, in press.

Lahey, B. B., Rathouz, P. J., Applegate, B., Tackett, J. L., & Waldman, I. D. (in press). Psychometrics of a self-report version of the Child and Adolescent Dispositions Scale. *Journal of Clinical Child and Adolescent Psychology*.

Lane AL, Mular L, Drenkard EJ, Shearer TL, Engel S, Fredericq S, Fairchild CR, Prudhomme J, Le Roch K, Hay ME, Aalbersberg W, Kubanek J (2009) Ecological leads for natural product discovery: Novel sesquiterpene hydroquinones from the red macroalga *Peyssonnelia* sp. *Tetrahedron* 66:455-461.

LaPrairie, J. and Murphy, A.Z. Neonatal Injury Alters Adult Pain Sensitivity by Increasing Opioid Tone in the Periaqueductal Gray. *Frontiers in Behavioral Neuroscience*, 3 (2009) 31-39.

Lee SE, Simons SB, Heldt SA, Zhao M, Schroeder JP, Vellano CP, Cowan DP, Ramineni S, Yates CK, Feng Y, Smith Y, Sweatt JD, Weinshenker D, Ressler KJ,

Dudek SM, Hepler JR. RGS14 is a natural suppressor of both synaptic plasticity in CA2 neurons and hippocampal-based learning and memory. *Proc Natl Acad Sci U S A*. 2010 Sep 13. [Epub ahead of print] PubMed PMID: 20837545.

Leitner, C. and Bartness, T. J. Distributed forebrain sites mediate melatonin-induced short day responses in Siberian hamsters. *Endocrinology*, 151:3133-3140, 2010. †Selected for Faculty of 1,000 special research papers.

Leitner, C. and Bartness, T. J. An intact dorsomedial hypothalamic nucleus, but not the subzona incerta or reunions nucleus, is necessary for short day melatonin signal-induced responses in Siberian Hamsters. *Neuroendocrinology*, in press.

Lemogne C, le Bastard G, Mayberg H, Volle E, Begouignan L, Lehericy S, Allilaire JF, Fossati P. In Search of the Depressive Self: Medial Frontal Gyrus Convicted by Self-Referential Processing. *SCAN* 2009 Sep;4(3):305-312.

Lemogne C, Mayberg H, Bergouignan L, Volle E, Delaveau P, Lehericy S, Allilaire JF, Fossati P. Self-referential processing and the prefrontal cortex over the course of depression: A pilot study. *J Affective Disorders*, 124:196-201, 2010.

Li, C., Frantz, K.J. (2010) Time-dependent increases in cue-induced reinstatement of sucrose seeking after sucrose self-administration in adolescence. *Behavioral Brain Research*, 213: 109-112.

Liang, X., M. Dhamala, Liang Zhao, Zonghua Liu, Phase-disorder-induced double resonance of neuronal activity, *Physical Review E* 82, 2010.

Liang, X., M. Tang, M. Dhamala, and Z. Liu, Phase Synchronization of Inhibitory Bursting Neurons Induced by Distributed Time Delays in Chemical Coupling, *Physical Review E* 80, 2010.

Liddle EB, Jackson GM, Rorden C, Jackson SR (2009) Lateralized temporal order judgement in dyslexia. *Neuropsychologia* 47:3244-3254

Lin, A-S, Stout EP#, Prudhomme J, Le Roch K, Fairchild CR, Franzblau SG, Hay ME, Aalbersberg W, Kubanek J (2010) Bioactive bromophycolides R-U from the Fijian red alga *Callophycus serratus*. *Journal of Natural Products* 73:275-278.

*Lin, F., and R. C. Liu, Subset of thin spike cortical neurons preserve the peripheral encoding of stimulus onsets, *Journal of Neurophysiology*, in press.

*Longchuan Li, Todd M. Preuss, James K. Rilling, William D. Hopkins, Matthew F. Glasser, Bhargav Kumar, Roger Nana, Xiaodong Zhang, Xiaoping Hu. (In press) Chimpanzee (*Pan troglodytes*) precentral corticospinal system asymmetry and handedness: a diffusion magnetic resonance imaging study. *PLoS ONE*.

Lucan, J.N., J.J. Foxe, M. Gomez-Ramirez, K. Sathian & S. Molholm. Tactile shape discrimination recruits human lateral occipital complex during early perceptual processing. *Human Brain Mapping*, in press.

Lutterschmidt, D.I. and R.T. Mason. 2010. Temporally distinct effects of stress and corticosterone on diel melatonin rhythms of red-sided garter snakes (*Thamnophis sirtalis parietalis*). *General and Comparative Endocrinology* 169: 11-17.

Magnuson, M, W Majeed, SD Keilholz. Functional connectivity in BOLD and CBV weighted resting state fMRI in the rat brain. *JMRI* 32:584–592; 2010.

Malcoun, E., Houry, D., Arndt-Jordan, C., Kearns, M.C., Zimmerman, L., Hammond-Susten, M., Rothbaum, B.O. (in press). Feasibility of identifying eligible trauma patients for a PTSD intervention. *Western Journal of Emergency Medicine*.

Malcoun, E. & Rothbaum, B.O. (2010). Book review of Mueser, K.T., Rosenberg, S.D., & Rosenberg, H.J. (2009). *Treatment of Posttraumatic Stress Disorder In Special Populations: A Cognitive Restructuring Program*. Washington, DC: American Psychological Association. *Cognitive and Behavioral Practice*. 17, 338-339.

Malkova, L., Mishkin, M., Suomi, S., Bachevalier, J (2010) Long-term effects of neonatal medial temporal ablations on socioemotional behavior in monkeys. *Behavioral Neuroscience*, in press.

*Maney, D. L. (2010). Hormonal control of sexual behavior in female nonmammalian vertebrates. In: Breed, M. D. & Moore J. (Eds.), *Encyclopedia of Animal Behavior*, vol. 1, pp. 697-703. Oxford: Elsevier.

*Maras, P. & Petrusis, A. (2010) The anterior medial amygdala transmits sexual odor information to the posterior medial amygdala and related forebrain nuclei. *European Journal of Neuroscience*, 32(3), 469–482.

*Maras, P. & Petrusis, A. (2010) Anatomical connections between the anterior and posterodorsal sub-regions of the medial amygdala: Integration of odor and hormone signals. *Neuroscience*, 170(2), 610-622.

Martin, E.I., Ressler, K.J., Jasnow, A.M., Dabrowska, J., Rainne, D.G., Nemeroff, C.B., Owens, M.J. (2010). A novel transgenic mouse for gene-targeting within CRF-expressing cells. *Molecular Psychiatry*, in press.

*Martinez, L.A., Albers, H.E., & Petrusis, A. Blocking oxytocin receptors inhibits vaginal marking to male odors in female Syrian hamsters. *Physiology and Behavior* (2010).

Masuda, A. Anderson, P., Wendell, J. W., Chou, Y. Y., Price, M., & Feinstein, A. B. (in press). The role of psychological inflexibility in the relation between self-concealment

and emotional distress in a stressful interpersonal situation. *Personality and Individual Differences*.

Masuda, A., Price, M., Anderson, P., Schmertz, S. K., & Calamaras, M (2009). The role of psychological flexibility in mental health stigma and psychological distress for the stigmatizer. *Journal of Social and Clinical Psychology* 28, 1244-1262.

Masuda, A., Anderson, P., Twohig, M.P., Feinstein, A. B., Chou, Y. Y., Wendell, J. W., Stormo, A. R. (2009). Help-seeking experiences and attitudes among African American, Asian American, and European American college students. *International Journal for the Advancement of Counseling*, 31, 168-180.

Matthews, G., Warm, J., Reinerman-Jones, L., Langheim, L., Washburn, D., & Tripp, L. (2010). Task engagement, cerebral blood flow velocity, and diagnostic monitoring for sustained attention. *Journal of Experimental Psychology: Applied*, 16, 187-203.

McConathy, Jonathan, Weiping Yu, Nachwa Jarkas,, Wonewoo Seo, and Mark M. Goodman. Radiohalogenated Non-Natural Amino Acids as PET and SPECT Tumor Imaging Agents, *Medicinal Research Reviews*, in press.

*McGraw, Lisa A., Jamie K. Davis, Josh J. Lowman, Boudewijn ten Hallers, Maxim Koriabine, Larry J. Young, Pieter J. de Jong, M. Katharine Rudd, and James W. Thomas. (2010) Development of genomic resources for the prairie vole (*Microtus ochrogaster*): construction of a BAC library and vole-mouse comparative cytogenetic map. *BMC Genomics*. 11:70

*McGraw, Lisa A., and Larry J. Young The prairie vole (*Microtus ochrogaster*): An emerging model organism for understanding the social brain. (2010) *Trends in Neuroscience*, 33: 103-109

Mealer, M., Burnham, E. L., Goode, C. J., Rothbaum, B.O. & Moss, M., (2009). The prevalence and impact of post traumatic stress disorder and burnout syndrome in nurses. *Depression and Anxiety*, 26, 1118-1126.

*Michopoulos, Vasiliki, Tammy Loucks, Sarah L. Berga, Jean Rivier, and Mark E. Wilson. Increased ghrelin sensitivity and calorie consumption in subordinate monkeys is affected by short-term astressin B administration. *Endocrine*. 2010. July 17, 2010.

Micklewright, J., & King, T.Z., (2010), Dejerine. In J. Kreutzer, J. DeLuca, & B. Caplan (Eds.), *Encyclopedia of Clinical Neuropsychology*, New York: Springer-Verlag, in press.

Mizelle, J.C., Hallett, M., Forrester, L & Wheaton, L.A. Electroencephalographic reactivity to unimodal and bimodal visual and proprioceptive demands in sensorimotor integration. *Exp Brain Res*; 2010; 203(4): 659-70.

Mizelle, J.C., Hallett, M., Forrester, L & Wheaton, L.A. Theta frequency band activity and attentional mechanisms in visual and proprioceptive demand. *Exp Brain Res*; 2010; 204(2): 189-97.

Mizelle, J.C. & Wheaton, L.A. Neural Activation for Conceptual Identification of Correct Versus Incorrect Tool-Object Pairs. *Brain Research*; 2010; 1354: 100-112.

Moffett, M. C., J. Song, M. J. Kuhar (2010) CART peptide inhibits locomotor activity induced by simultaneous stimulation of D1 and D2 receptors, but not by stimulation of individual dopamine receptors." *Synapse*, in press.

Moreira CG, Weinshenker D, Sperandio V. QseC mediates *Salmonella enterica* serovar typhimurium virulence in vitro and in vivo. *Infect Immun*. 78(3):914-26, 2010.

Morris, B.F., Atlmann, J., Brockman, D.K., Cords, M., Fedigan, L.M., Pusey, A.E., Stoinski, T.S., Bronikowski, A.M., Alberts, S.C., Strier, K.B. Long-term fitness in wild primate populations: impacts of variation, covariation, and serial correlation in vital rates. *American Naturalist*, in press.

Moser D, Baker JM, Sanchez CE, Rorden C, Fridriksson J (2009) Temporal order processing of syllables in the left parietal lobe. *J. Neurosci* 29:12568-12573

Moser D, Fridriksson J, Bonilha L, Healy EW, Baylis G, Baker JM, Rorden C (2009) Neural recruitment for the production of native and novel speech sounds. *Neuroimage* 46:549-557.

*Myers, K.M., Carlezon, W. A. and Davis, M. (in press) Glutamate receptors in extinction and extinction-based therapies for psychiatric illness. *Neuropsychopharmacology*.

*Myers, K.M. and Davis, M. Extinction of fear: Animal studies to clinical interventions. In: *Encyclopedia of Fear and Anxiety*, Blanchard, R. and Blanchard, C. (Ed)

Nater, U.M., Bohus, M., Abbruzzese, E., Ditzen, B., Gaab, J. Kleindienst, N., Ebner-Priemer, U., Mauchnik, J., & Ehlert, U. (2010). Increased Psychological and Attenuated Cortisol and Alpha-Amylase Responses to Acute Psychosocial Stress in Female Patients with Borderline Personality Disorder. *Psychoneuroendocrinology*, 35, 10, 1565-1572.

Nater, U.M., Ditzen, B., & Ehlert, U. (2010). Stress-dependent Bodily Disorders. In U. Wittchen & J. Hoyer (Eds.). *Clinical Psychology and Psychotherapy*. 2nd Ed., Berlin: Springer, in press.

Neigh, G.N., Karelina, K., Glasper, E.R., Bowers, S.K., Zhang, N., Popovich, P., DeVries, A.C. (2009) Anxiety following cardiac arrest/cpr: exacerbated by stress and prevented by minocycline. *Stroke*, 40(11):3601-7.

Neigh, G.N., Owens, M.J., Taylor, W.R., Nemeroff, C.B. (2010) Prenatal dexamethasone mitigates adult stress-induced anhedonia and differentially alters cerebral vasculature in the hippocampus and amygdala of male rats. *Journal of Cerebral Blood Flow and Metabolism*, 30(6): 1100-4.

Nickell, J.R., Krishnamurthy, S., Norrholm, S., Deaciuc, G., Siripurapu, K.B., Zheng, G., Crooks, P.A., & Dwoskin, L.P. (2010). Lobelane inhibits methamphetamine-evoked dopamine release via inhibition of the Vesicular Monoamine Transporter-2. *Journal of Pharmacology and Experimental Therapeutics*, 332(2):612-21.

Nikolas, M., Friderici, K., Waldman, I.W., Jernigan, K., & Nigg, J.T. (2010). Gene x environment interactions for ADHD: Synergistic effect of 5HTTLPR genotype and youth appraisals of inter-parental conflict. *Behavioral and Brain Functions*, 6, 23.

*Normandin, JJ and Murphy, A.Z. Excitotoxic lesions of the nucleus paragigantocellularis facilitate male sexual behavior but attenuate female sexual behavior in rats. *Neurosci*, in press.

Norrholm, S.D., Jovanovic, T., Olin, I.W., Sands, L.A., Karapanou, I., Bradley, B., & Ressler, K.J. (2010, in press). Fear extinction in traumatized civilians with posttraumatic stress disorder: relation to symptom severity. *Biological Psychiatry*.

Norrholm, S.D. & Jovanovic, T. (2010). Tailoring therapeutic strategies for treating posttraumatic stress disorder symptom clusters. *Neuropsychiatric Disease and Treatment*, 2010(6), 517-532.

Norrholm, S.D., & Ressler, K.J. (2009). Genetics of anxiety and trauma-related disorders. *Neuroscience*, 164(1):272-87.

Nusnbaum, M. and C.D. Derby. 2010. Effects of sea hare ink secretion and its escapin-generated components on a variety of predatory fishes. *Biol. Bull.* 218: 282-292.

Nusnbaum, M. and C.D. Derby. 2010. Ink secretion protects sea hares by acting on the olfactory and non-olfactory chemical senses of a predatory fish. *Anim. Behav.* 79: 1067-1076.

O'Bryant, E. L., and W. Wilczynski (2010) Changes in plasma testosterone levels and brain AVT cell number during the breeding season. *Brain Behav. Evol.*, 75: 271-281.

Olden, M., Cukor, J., Rizzo, A., Rothbaum, B., & Difede, J. (in press). House Calls Revisited: Leveraging technology and social media to overcome obstacles to care and improve treatment outcomes. Accepted for publication in the *Annals of the New York Academy of Sciences (NYAS)*.

Onifade, E.O., Jackson, D.M., Chang, T.R., Allen, C., Thorne, J. (*In press*). Recall and the serial position effect: The role of primacy and recency on accounting students' performance. *Academy of Educational Leadership Journal*.

*Owren, M. J., Rendall, D., & Ryan, M. J. (2010). Redefining animal signaling: Influence versus information in communication. *Biology & Philosophy*. DOI: 10.1007/s10539-010-9224-4.

Pai, A., T. Benning, N. Woods, J. Chu, G. McGinnis, J. Netherton, C. Bauerle. 2010. Lessons from a case-study based first-year Biology class at a black women's college. *Journal of College Science Teaching*, in press.

Pai, A. 2010. Learning concepts in evolution using malaria as a case study. MedEdPORTAL. Available from: <http://services.aamc.org/30/mededportal/servlet/s/segment/mededportal/?subid=8086>

*Pan, WJ, G Thompson, M Magnuson, W Majeed, D Jaeger, S Keilholz. Simultaneous fMRI and Electrophysiology in the Rodent Brain. *JoVE*: 42; 2010.

Papazoglou, A., King, T.Z., Burns, T. (2010). Active seizures are associated with reduced adaptive functioning in children with epilepsy. *Seizure: Eur J Epilepsy*, in press.

Papazoglou, A., King, T.Z., Morris, R.D., & Krawiecki, N.S. (2009). Parent report of attention problems predicts later adaptive functioning in children with brain tumors. *Child Neuropsychology*, 15(1), 40-52.

Papazoglou, A., & King, T.Z., (2010), Gazzaniga. In J. Kreutzer, J. DeLuca, & B. Caplan (Eds.), *Encyclopedia of Clinical Neuropsychology*, New York: Springer-Verlag, in press.

Papazoglou, A., & King, T.Z., (2010), Tan. In J. Kreutzer, J. DeLuca, & B. Caplan (Eds.), *Encyclopedia of Clinical Neuropsychology*, New York: Springer-Verlag, in press.

Papale, L.A., Paul, K.N., Sawyer, N.T., Manns, J.R., Tufik, S., Escayg, A. (2010) Dysfunction of the Scn8a voltage-gated sodium channel alters sleep architecture, reduces diurnal corticosterone levels, and enhances spatial memory. *J. Biol. Chem.* 285: 16553-16561.

Parfene, C., Stewart, T.L., King, T.Z. (2009). Epilepsy stigma and stigma by association in the workplace. *Epilepsy & Behavior*, 15, 461-466.

Park, Edward S., Ashley E. Carson, Michael A. DiFeo, Thomas H. Barker, and Hang Lu, "Continuously Perfused, Individually Isolated Microfluidic Chamber Array for Studying Cellular Responses to Orthogonal Combinations of Matrix and Soluble Signals", *Lab on a Chip*, 10: 571-580, 2010.

Parr, L.A. (2010). Emotion and social cognition in primates. In: M.D. Breed & J. Moore (Eds.), *Encyclopedia of Animal Behaviour*, volume 1, pp. 621-627, Oxford, UK: Academic Press.

Parr, L.A. (2010). Understanding the expression and classification of chimpanzee facial expressions. *The Mind of the Chimpanzee: Ecological and Experimental Perspectives*, Chicago, IL: Chicago University Press.

Parr, L.A. & Hecht, E. (in press). Face recognition in nonhuman primates. In. A. Calder, G. Rhodes, J. Haxby & M. Johnson (Eds.). *Handbook of Face Perception*. Oxford, UK: Oxford University Press.

Parr, L.A., Heintz, M., Lonsdorf E. & Wroblewski, E. (in press). Visual kin recognition in nonhuman primates: Inbreeding avoidance or male distinctiveness. *Journal of Comparative Psychology*.

Parr, L.A. & Waller, B.M. (in press). The evolution of social cognition. In. J. Decety & J.T. Cacioppo (Eds.). *The Handbook of Social Neuroscience*. Oxford University Press.

Parr, L.A., Waller, B.M., Burrows, A.M., Gothard, K.M. & Vick, S.J. (in press). MaqFACS: A muscle-based facial movement coding system for the macaque monkey. *American Journal of Physical Anthropology*.

Parron, C. & Washburn, D. A. (2010). Contrasting the edge- and the surface-based theories of object recognition: Behavioral evidence from macaques. *Journal of Experimental Psychology: Animal Behavior Processes*, 36, 148-157

Paul, K.N., Saafir, T.B., Tosini, G. (2009) The Role of Retinal Photoreceptors in the Regulation of Circadian Rhythms. *Rev. Endocr. Metab. Disord.* 10: 271-278.

*Payne, C. and Bachevalier, J. Neuroanatomy of the developing social brain. In: M. de Haan and M. Gunnar (eds) *Handbook of Developmental Social Neuroscience*, New York: Guilford Press, 2009, pp.38-62.

Petrulis, A. (2010) Pheromones and mammalian reproduction. In D. O. Norris & K. H. Lopez (Eds.), *Hormones and Reproduction of Vertebrates (Vol. 5)*, (pp. 175-193). New York: Elsevier.

Pinotti M, Bertolucci C, Frigato E, Branchini A, Cavallari N, Baba K, Contreras-Alcantara S, Ehlen C, Bernardi F, Paul KN, Tosini G. (2010) Chronic sleep deprivation markedly reduces coagulation factor VII expression. *Haematologica*. In press.

Prasad, A., M. Dhamala, B. Adhikari, and R. Ramaswamy, Amplitude Death in Nonlinear Oscillators with Nonlinear Coupling, *Physical Review E* 81, 2010.

- Prasad, A., M. Dhamala, B. Adhikari, and R. Ramaswamy, Targeted Control of Amplitude Dynamics in Coupled Nonlinear Oscillators, *Physical Review E* 82, 2010.
- Ready, D. J., Gerardi, R.J., Bakscheider, A. G., Mascaro, N., & Rothbaum, B. O. (2010). Comparing Virtual Reality Exposure Therapy to Present Centered Therapy with Eleven U.S. Vietnam Veterans with PTSD. *CyberPsychology and Behavior*, 13. 49-54.
- Reby, D., Charlton, B. D., Locatelli, Y., & McComb, K. (2010) Oestrous red deer hinds prefer high-pitched roars. *Proceedings of the Royal Society of London - Series B*, 277, 2747-2753.
- Reger, G.M., Holloway, K.M., Candy, C., Rothbaum, B.O., Difede, J., Rizzo, A., & Gahm, G.A. (in press). Effectiveness of Virtual Reality Exposure Therapy for Active Duty Soldiers in a Military Mental Health Clinic. *Journal of Traumatic Stress*.
- Ressler KJ, Bradley B, Mercer KB, Deveau TC, Smith AK, Gillespie CF, Nemeroff CB, Cubells JF, Binder EB. (2009) Polymorphisms in CRHR1 and the serotonin transporter loci: Gene x Gene x Environment interactions on depressive symptoms. *Am J Med Genet B Neuropsychiatr Genet*. 153B(3):812-824.
- *Ressler, K. J. & Rothbaum, B.O. Psychosocial Treatments of Posttraumatic Stress Disorder. In *Posttraumatic Stress Disorder: Diagnosis, Management & Treatment*, 2nd Edition, Edited by David Nutt, Murray Stein, and Joseph Zohar. London: Informa healthcare, pp 99 – 115, 2009.
- *Rilling, J.K., and Sanfey, A.G. (2010). The Neuroscience of Social Decision-Making. *Annu Rev Psychol*.
- Rivet, Catherine, Hyewon Lee, Alison Hirsch, and Sharon Hamilton, Hang Lu, “Microfluidics for Medical Diagnostics and Biosensors”, invited review in a Special Issue of Authoritative Reviews, *Chemical Engineering Science*, in press.
- Rizzo, A., Difede, J., Rothbaum, B.O., Reger, G., Spitalnick, J., Cukor, J., & Mclay, R. (in press). Virtual Iraq/Afghanistan: Development and Early Evaluation of a Virtual Reality Exposure Therapy System for Combat-Related PTSD. Accepted for publication in the *Annals of the New York Academy of Sciences (NYAS)*.
- Robins, D.L. & Fein, D. (in press, available Oct 2010). The Modified Checklist for Autism in Toddlers. In B. Caplan, J. Deluca, & J.S. Kreutzer (Eds.), *Encyclopedia of Clinical Neuropsychology*. New York: Springer.
- Rogge, G. A., L. L. Shen, M. J. Kuhar (2010) Chromatin immunoprecipitation assays revealed CREB and serine 133 phospho-CREB binding to the CART gene proximal promoter. *Brain Res* 1344: 1-12.
- Rorden C, Jelsone L, Simon-Dack S, Baylis LL, Baylis GC (2009) Visual extinction: the

effect of temporal and spatial bias. *Neuropsychologia* 47:321-329

Rorden C, Fridriksson J, Karnath H (2009) An evaluation of traditional and novel tools for lesion behavior mapping. *Neuroimage* 44:1355-1362

*Ross, A. P., Bartness, T. J., Mielke, J. G., and Parent, B. A high fructose diet impairs spatial memory in male rats. *Neurobiology of Learning and Memory*, 92(3):410-6, 2009.

Rothbaum, B.O. (in press). Psychosocial Interventions for PTSD. In: UpToDate, Stein, M (Ed), UpToDate, Waltham, MA.

* Rothbaum, B.O. (in press). Commentary on “Psychological Interventions for Trauma Exposure and PTSD,” by Richard A. Bryant. To appear in D, Stein, C. Blanco & M. Friedman (Eds). *Trauma and Mental Health: Resilience and Posttraumatic Stress Disorders*.

*Rothbaum, B.O., Rizzo, A., & Difede, J. (in press). Virtual Reality Exposure Therapy for Combat-related Posttraumatic Stress Disorder. *Annals of the New York Academy of Sciences (NYAS)*.

Roy, M.J., Francis, J., Friedlander, J., Banks-Williams, L., Lande, R.G., Taylor, P., Blair, J., McLellan, J., Law, W., Tarpley, V., Patt,I., Yu, H., Mallinger, A., Difede, J., Rizzo, A., & Rothbaum, B. (in press). Improvement in Cerebral Function with Treatment of Posttraumatic Stress Disorder. *Annals of the New York Academy of Sciences (NYAS)*.

*Rozga, A., Andersen, S., & Robins, D. (in press). Autism Neuropsychological Theory: a Review. In: D. Fein (Ed), *The Neuropsychology of Autism*. Oxford University Press: New York, in press.

*Ryan, J., & King, T.Z., (2010), Damasio. In J. Kreutzer, J. DeLuca, & B. Caplan (Eds.), *Encyclopedia of Clinical Neuropsychology*, New York: Springer-Verlag.

*Ryan, J., & King, T.Z., (2010), Goldstein. In J. Kreutzer, J. DeLuca, & B. Caplan (Eds.), *Encyclopedia of Clinical Neuropsychology*, New York: Springer-Verlag.

*Ryan, J., & King, T.Z., (2010), Goodglass. In J. Kreutzer, J. DeLuca, & B. Caplan (Eds.), *Encyclopedia of Clinical Neuropsychology*, New York: Springer-Verlag.

*Saab, S. S., Lange, H. S., and Maney, D. L. (2010). Gonadotropin-releasing hormone neurones in a photoperiodic songbird express Fos and Egr-1 protein after a single long day. *Journal of Neuroendocrinology*, 22, 196-207.

Sanchez, M.M., Pollak, S. (2009). Socio-emotional development following early abuse and neglect. Challenges and insights from translational research. In: “Handbook of Developmental Social Neuroscience”, de Haan M. & Gunnar M.R. [Eds.]. Guilford Press: New York, pp 497-520.

Savir-Baruch B, Jarkas N, Schuster DM, Master V, Nieh PT, Halkar RK, Nye J, Lewis M, Crowe R, Voll R, Camp VM, Bellamy M, Roberts D, MM, Goodman MM. Pilot Evaluation of *anti*-1-amino-2-[¹⁸F] fluorocyclopentane-1-carboxylic acid (*anti*-2-[¹⁸F]FACPC) PET-CT in recurrent prostate carcinoma. *Molecular Imaging and Biology*, in press.

Schmertz, S. K., Anderson, P., & Robins, D. (2009). The relation between self-reported mindfulness and performance on tasks of sustained attention. *Journal of Psychopathology and Behavioral Assessment*, 31, 60-66.

Schorscher-Petcu, Ara, Susana Sotocinal, Jennifer Ritchie, Anouk Dupré, Eliane Tribollet, Jacqueline N. Crawley, Larry J. Young, Katsuhiko Nishimori, Rémi Quirion and Jeffrey S. Mogil. (2010) Oxytocin-induced analgesia is not mediated by the oxytocin receptor, but rather by the vasopressin-1A receptor. *Journal of Neuroscience*, 30(24):8274-84.

Schroeder JP, Cooper DA, Schank JR, Lyle MA, Gaval-Cruz M, Ogbonmwan YE, Pozdeyev N, Freeman KG, Iuvone PM, Edwards GL, Holmes PV, Weinshenker D. Disulfiram Attenuates Drug-Primed Reinstatement of Cocaine Seeking via Inhibition of Dopamine beta-Hydroxylase. *Neuropsychopharmacology*. 2010 Aug 25. [Epub ahead of print] PubMed PMID: 20736996.

Schumacher, E. H., Seymour, T. L., Schwarb, H. (2010). Brain activation evidence for response conflict in the exclude recognition task. *Brain Research*, 1329, 113-123.

Schwarb, H. & Schumacher, E. H. (2010). Implicit spatial sequence learning is represented by stimulus-response rules. *Memory & Cognition*, 38(6), 677-688.

*Shepard KN, Liu RC (2010) Experience restores innate female preference for male ultrasonic vocalizations. *Genes, Brain and Behavior* (in press).

*Shrestha, Y. B., Vaughan, C. H., Smith, B. J. Jr., Song, C. K., Baro, D. J. and Bartness, T. J. Central melanocortin stimulation increases phosphorylated perilipin A and hormone sensitive lipase in adipose tissues. *American Journal of Physiology*, 299:R140-R149, 2010.

Skinbjerg M, Seneca N, Liow JS, Hong J, Weinshenker D, Pike VW, Halldin C, Sibley DR, Innis RB. Dopamine beta-hydroxylase-deficient mice have normal densities of D(2) dopamine receptors in the high-affinity state based on in vivo PET imaging and in vitro radioligand binding. *Synapse*. 2010 Sep;64(9):699-703. PubMed PMID: 20336622; PubMed Central PMCID: PMC2894264.

Smith DV, Davis B, Niu K, Healy EW, Bonilha L, Fridriksson J, Morgan PS, Rorden C (2010) Spatial attention evokes similar activation patterns for visual and auditory stimuli. *J Cogn Neurosci* 22:347-361

Smith DT, Jackson SR, Rorden C (2009) An intact eye-movement system is not required to generate inhibition of return. *J Neuropsychol* 3:267-271

Smith DT, Jackson SR, Rorden C. (2009) Repetitive transcranial magnetic stimulation over frontal eye fields disrupts visually cued auditory attention. *Brain Stimul.* 2:81-7

Stehouwer JS, Daniel LM, Chen P, Voll RJ, Williams, Plott S, Votaw JR., Owens M, Howell L, Goodman MM. Synthesis, Fluorine-18 Radiolabeling, and Biological Evaluation of *N*-((*E*)-4-Fluorobut-2-en-1-yl)-2 β -carbomethoxy-3 β -(4'-halophenyl)nortropans: Candidate Radioligands for In Vivo Imaging of the Brain Dopamine Transporter with Positron Emission Tomography. *Journal of Medicinal Chemistry*, 53: 5549–5557, 2010.

Stein, B.E., D. Burr, C. Constantinidis, P.J. Laurienti, M.A. Meredith, T.J. Perrault, R. Ramachandran, B. Röder, B.A. Rowland, K. Sathian, C.E. Schroeder, L. Shams, T.R. Stanford, M.T. Wallace, L. Yu & D.J. Lewkowicz. Semantic confusion regarding the development of multisensory integration: a practical solution. *European Journal of Neuroscience*, 31: 1713-1720, 2010.

Stein, D., Hollender, E., & Rothbaum, B. O. *Textbook of Anxiety Disorders*, 2nd edition. American Psychiatric Press. 2010.

Stein, D., Pedersen, R., Rothbaum, BO., Baldwin, D.S., Ahmed, S., Musgnung, J. & Davidson, J.R.T. (2009). Onset of Activity and Time to Response on Individual CAPS-SX17 Items in Patients Treated for Posttraumatic Stress Disorder with Venlafaxine ER: A Pooled Analysis. *International Journal of Neuropsychopharmacology*. 12, 23-31.

Stirman, Jeffrey N., Martin Brauner, Alexander Gottschalk, and Hang Lu, “Microfluidic system for high-throughput studies of synaptic functions using ChR2”, *J. Neurosci. Methods*, 191 (1): 90-93, 2010.

Stout EP, Kubanek J. (2010) Marine macroalgal natural products. *Comprehensive Natural Products II: Chemistry and Biology*. Mander L, Lui HW, eds. Elsevier, Oxford, Vol. 2, pp. 41-65.

Stout EP, La Clair JJ, Snell TW, Kubanek J (2010) Conservation of progesterone hormone function in invertebrate reproduction. *Proceedings of the National Academy of Sciences* 107:11859-11864.

Stout EP, Prudhomme J, Le Roch K, Hay ME, Franzblau S, Fairchild CR, Aalbersberg W, Kubanek J (2010) Unusual antimalarial meroditerpenes from Fijian red algae. *Bioorganic and Medicinal Chemistry Letters* 20:5662-5665.

Strier, K.B., Atlmann, J., Brockman, D., Bronikowski, A., Cords, M., Fedigan, L., Lapp, H., Liu, X., Morris, W., Pusey, A., Stoinski, T.S., Alberts, S. The primate life history

database: A unique shared ecological data resource. *Methods in Ecology and Evolution*, 1, 199-211, 2010.

Tang YL, Li W, Mercer K, Bradley B, Gillespie CF, Bonsall R, Ressler KJ, Cubells JF. (2010) Genotype-controlled analysis of serum dopamine beta-hydroxylase activity in civilian post-traumatic stress disorder. *Prog Neuropsychopharmacol Biol Psychiatry*, in press.

Taubert, J. & Parr, L.A. (in press). Geometric distortions affect face recognition in chimpanzees (*Pan troglodytes*) and monkeys (*Macaca mulatta*). *Animal Cognition*.

Teubner, B. J. W. and Bartness, T. J. Cholecystokinin-33 acutely attenuates food foraging, hoarding and intake in Siberian hamsters. *Peptides*, 31(4):618-624, 2010.

Turner TH, Fridriksson J, Baker J, Eoute D, Bonilha L, Rorden C (2009) Obligatory Broca's area modulation associated with passive speech perception. *Neuroreport* 20:492-496

Vytal, K.E., & Hamann, S. (2010). Neuroimaging support for discrete neural correlates of basic emotions: A voxel-based meta-analysis. *Journal of Cognitive Neuroscience* 22(12), 2864-85.

Wager, Tor, Lauren Atlas, Lauren Leotti and James K. Rilling. Predicting individual differences in placebo analgesia: Contributions of brain activity during anticipation and pain experience. *Journal of Neuroscience*, in press.

Waldman, I.D. & Rhee, S.H. (in press). The Search for Genes and Environments that underlie Psychopathy and Antisocial Behavior: Quantitative and Molecular Genetic Approaches. In Kiehl, K. & Sinnott-Armstrong, W. (Eds.), *Psychopathy and the Law*.

Wallen, K. (2009). Does finger fat produce sex differences in second to fourth digit ratios? *Endocrinology* 150(11): 4819-22.

Wallen, K (2010). Sexual differentiation of behavior in nonhuman primates. In Art Arnold (Ed.), *Hormones, Brain and Behavior*, 2nd edition: Elsevier, in press.

Wallen, K., Rupp, H.A. (2010). Women's interest in visual sexual stimuli varies with menstrual cycle phase at first exposure and predicts later interest. *Hormones and Behavior*, in press.

Weinshenker D. Cocaine sobers up. *Nat Med*. 2010 Sep;16(9):969-70.

Whalen KE, Lane AL, Kubanek J, Hahn ME (2010) Biochemical warfare on the reef: the role of glutathione S-transferases in consumer tolerance of dietary prostaglandins. *PLoS ONE* 5:e8537.

Wheaton, L.A., Villagra, F., Hanley, D.F., Macko, RF and Forrester L.W. Reliability of TMS motor evoked potentials in quadriceps of subjects with chronic hemiparesis after stroke. *J Neurol Sci*; 2009; 276: 115-117.

*Williams, KA, M Magnuson, W Majeed, SM LaConte, SJ Peltier, X Hu, SD Keilholz. Comparison of α -chloralose, Medetomidine, and Isoflurane Anesthesia for Functional Connectivity Mapping in the Rat. *MRI* 28:995-1003; 2010.

Wingo AP, Fani N, Bradley B, Ressler KJ. (2010) Psychological resilience and neurocognitive performance in a traumatized community sample. *Depress Anxiety*. 27(8): 768-774.

Wingo AP, Wrenn G, Pelletier T, Gutman AR, Bradley B, and Ressler KJ (2010) Moderating effects of resilience on depression in individuals with a history of childhood abuse or trauma exposure. *J Affect Disorders*; 126 (3): 411-414.

Wood, J.B., A. Maynard, A. Lawlor, E.K. Sawyer, D. Simmons, K.E. Pennoyer, and C.D. Derby. 2010. Caribbean reef squid, *Sepioteuthis sepioidea*, use ink as a defense against predatory French grunts, *Haemulon flavolineatum*. *J. Exp. Mar. Biol. Ecol.* 388: 20-27.

Yanpallewar SU, Fernandes K, Marathe SV, Vadodaria KC, Jhaveri D, Rommelfanger K, Ladiwala U, Jha S, Muthig V, Hein L, Bartlett P, Weinshenker D, Vaidya VA. Alpha2-adrenoceptor blockade accelerates the neurogenic, neurotrophic, and behavioral effects of chronic antidepressant treatment. *J Neurosci*. 2010 Jan 20;30(3):1096-109. PubMed PMID: 20089918; PubMed Central PMCID: PMC2880491.

Yeom, H. J. and Y.-H. Chang. Autogenic EMG-controlled functional electrical stimulation for ankle dorsiflexion control. *J. Neurosci. Meth.*, in press, accepted Aug 9, 2010. doi:10.1016/j.jneumeth.2010.08.011

Yi SV and Goodisman MAD. 2009. Computational approaches for understanding the evolution of DNA methylation in animals. *Epigenetics*. 4:551-556. Invited perspective.

Yu, Weiping, Larry Williams, Vernon M. Camp, Jeffrey J Olson, Mark M. Goodman. Synthesis and Biological Evaluation of *anti*-1-Amino-2-[¹⁸F]Fluoro-Cyclobutyl-1-Carboxylic Acid (*anti*-2-[¹⁸F]FACBC) in Rat 9L Gliosarcoma, *Bioorganic and Medicinal Chemistry Letters*, 20:2140-2143, 2010.

*Zeamer, A., Alvarado, M.C., and Bachevalier, J. Development of medial temporal lobe memory processes in non-human primates. In: M. Blumberg, J. Freeman and S. Robinson (eds) *Handbook of Developmental and Comparative Neuroscience: Epigenesis, Evolution and Behavior*, Oxford, UK: Oxford University Press, 2009, pp. 607-616.

*Zeamer, A., Heuer, E., Bachevalier, J. (2010) Developmental trajectory of object recognition memory in infant rhesus monkeys with and without neonatal hippocampal lesions. *Journal of Neuroscience*. In press.

Zeng, Fanxing, David Alagille, Gilles D. Tamagnan, Brian J. Ciliax, Allan I. Levey, and Mark M. Goodman. Synthesis and Structure-Activity Relationship of Imidazo[1,2-*b*]pyridazines as Ligands for β -Amyloid Plaques, *ACS Medicinal Chemistry Letters*, 1:80-84, 2010.

Zola, S.: History of behavioral neuroscience. In: Encyclopedia of Behavioral Neuroscience, Volume 3, George F. Koob, Michel Le Moal, Richard F. Thompson, eds., Maryland Hights, MO, Elsevier BV, pp. 27-44, 2010.