

Terrence Deak, Ph.D.

EDUCATION

- 1996-1999 University of Colorado, Ph.D. in Psychology (Neuroscience).
Thesis: Neuroendocrine and immunological consequences of acute stressor exposure. *Advisors:* S.F. Maier, L.R. Watkins & R.L. Spencer
- 1994-1996 University of Colorado, M.A. in Psychology (Neuroscience).
Thesis: Evidence for activation of the acute phase response following exposure to an acute stressor. *Advisors:* S.F. Maier & L.R. Watkins
- 1990-1994 Bowling Green State University, B.S. in Psychology, minor in Chemistry.

EXPERIENCE

- 2007-present Associate Professor, Behavioral Neuroscience Program, Department of Psychology. State University of New York (SUNY) at Binghamton (Binghamton, NY)
- 2001-2007 Assistant Professor, Behavioral Neuroscience Program, Department of Psychology. State University of New York (SUNY) at Binghamton (Binghamton, NY)
- 2000-2001 Senior Scientist-Post Doctoral Research Associate, Neurotoxicology Unit. Naval Health Research Center- Toxicology Detachment (Dayton, OH)
- 2000-2001 Adjunct Faculty, Department of Psychology
Wright State University (Dayton, OH)
- 1999-2000 Post-Doctoral Research Associate, Department of Psychology
University of Colorado at Boulder (Boulder, CO)
- 1996-1999 Graduate Research Assistant/Mentor, Advised undergraduate honors theses (3x), independent studies (2x), and undergraduate research fellowship awardees (6x).
University of Colorado (Boulder, CO)
- 1996-1997 Lead Graduate Teacher, Responsible for training all incoming graduate students in psychology on effective teaching techniques and university policy.
University of Colorado (Boulder, CO)
- 1994-1996 Teaching Assistant, Laboratory/discussion sections taught: Statistics (2x), Introductory Psychology (4x), Biopsychology (2x), and Sensation & Perception (2x).
University of Colorado (Boulder, CO)
- 1996-1997 Adjunct Faculty/Instructor, Department of Psychology.
Front Range Community College (Westminster, CO)
- 1994 Counselor. Provided treatment to ADHD children using regimented behavioral modification during summer treatment program.

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University of Pittsburgh Medical Center (Pittsburgh, PA)

- 1993 Research Assistant. Coordinated medication trials for ADHD children; managed databases and trained counselors to track data for summer treatment program.
University of Pittsburgh Medical Center (Pittsburgh, PA)
- 1991-1994 Counselor/advocate. Provided long-term crisis intervention counseling for victims of violent crimes; worked with local government agencies to meet client needs; trained new volunteers.
The Link - Victims Advocacy Program (Bowling Green, OH)

SPECIAL AWARDS & OTHER HONORS

- 2008 Press release in APS Observer regarding Cattell Award (Sept newsletter)
- 2003 Press release regarding NARSAD Young Investigator Award
- 1999 Doctoral Dissertation Grant
- 1997-1998 Dean's Small Grant Award
- 1997-1998 University of Colorado Graduate Student Fellowship
- May 1998 Completed Graduate Teacher Certification
- 1994 John H. Moore Memorial Scholarship
- 1994 Advocate of the Year at The Link (Crisis Intervention Specialist)
- 1993-1994 Undergraduate Research Grant
- 1992-1993 Undergraduate Research Grant

PROFESSIONAL AFFILIATIONS

Editorial Boards

Endocrinology (2009-2012)

Ad hoc reviewer for the following journals:

Endocrinology
Endocrine Reviews
American Journal of Physiology
Journal of Clinical Endocrinology & Metabolism
Brain Research
Biomedicine & Pharmacotherapy
Neuroscience
Journal of Neuroimmunology
Psychoneuroendocrinology
Behavioural Brain Research
Pharmacology, Biochemistry & Behavior
Neurobiology of Learning & Memory
Brain, Behavior & Immunity
Peptides
Biological Psychiatry
Cellular and Molecular Neurobiology

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Neurotoxicology and Teratology
Physiology & Behavior
Cytokine
Journal of Trauma, Violence & Abuse
Progress in Neuropsychopharmacology and Biological Psychiatry
Journal of Applied Physiology

Grants reviewed for:

National Science Foundation (NSF; ad hoc reviewer, 2002-present)
National Science Foundation (NSF; panel member, 2006-present)
Health Research Board of Ireland

Professional memberships:

Society for Neuroscience (SFN), member
Psychoneuroimmunology Research Society (PNIRS), member
Society for Behavioral Neuroendocrinology (SBN), member
Served on Membership Committee, 2008-2009
The Endocrine Society, member
Association for Psychological Science (APS), member
Center for Development and Behavioral Neuroscience (CDBN; SUNY-Binghamton)
Developmental Exposure Alcohol Research Center (DEARC)

HISTORY OF EXTRAMURAL GRANT SUPPORT

Ongoing support

Hennessy, M.B., **Deak, T.** & Schiml-Webb, P. (Co-Investigator). “Stress-induced sickness during social separation: implications for depression”; NIMH Grant: R15 (AREA grant); Funding period: April 1st, 2006 – March 31st, 2009; Direct Costs: \$150,000

Deak, T. (Principal Investigator). “Ethanol Withdrawal and Cytokines”; NIAAA: 1R21AA016305-01 (exploratory/development); Funding period: March 15th, 2008 – March 14th, 2010; Direct Costs: \$275,000.

Deak, T. (Principal Investigator). Sabbatical fellowship from the James McKeen Cattell Foundation; Funding period: September 1st 2008 – May 15th 2009; Total Costs: \$35,000.

Deak, T. (Principal Investigator). “Mechanisms of central IL-1 responses to stress” National Science Foundation (NSF grant number 0822129); Funding period: August 1st, 2008 – July 31st, 2012; Total Costs: \$400,000.

Hennessy, M.B., **Deak, T.** & Schiml-Webb, P. (Co-Investigator). “Site-specific CNS stimulation of depressive symptoms and proinflammatory activity.” Hope for Depression Research Foundation; Funding period: January 1st, 2009 – December 31st, 2010; Direct Costs: \$105,000.

Pending support

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Hennessy, M.B., **Deak, T.** & Schiml-Webb, P. (Co-Investigator). “Stress-induced sickness during social separation: implications for depression”; NIMH Grant: R15 (AREA grant renewal); Funding period: June 1st, 2009 – May 31st, 2012; Direct Costs: \$150,000

Deak, T. & Bishop, C. (Principal Investigator). “Neuroinflammation and dyskinesia.” NINDS grant number 1R01NS065950-01. Proposed funding period: July 1, 2009-June 30, 2014; Direct Costs: \$1,125,000.

Deak, T. & Arakawa, A. (Principal Investigator). “Social recognition and neuroinflammation in the aged.” NIA grant number 1R01AG034564-01. Proposed funding period: July 1, 2009-June 30, 2014; Direct Costs: \$1,250,000.

Past Support

Deak, T. (Principal Investigator). “Psychosocial Stress, Cytokines and Depression” Hope for Depression Research Foundation (HDRF grant number 6-008); Funding period: January 1st, 2007 – December 31st, 2008; Direct Costs: \$105,000.

Deak, T. (Principal Investigator). “Microglial regulation of the neuroendocrine stress response”; NSF grant number 0549987: Small Grant For Exploratory Research (SGER); Funding period: May 1st, 2006 – April 30th, 2008; Total Costs: \$200,000.

Deak, T. (Principal Investigator). “Sickness, cytokines and affective disorders”; NARSAD Young Investigator Award; Funding period: July 1st 2003 – December 31st, 2005; Direct Costs: \$60,000

Hennessy, M.B., **Deak, T.** & Schiml-Webb, P. (Co-Investigator). “Stress-induced sickness behavior during separation”; NIMH Grant number: R15 MH68228 (AREA grant); Funding period: July 1st, 2003 – June 30th, 2005; Direct Costs: \$100,000

Deak, T. (Principal Investigator). “Behavioral despair and Interleukin-1”; NIMH Grant number: 1 RO3 MH65959-01 (B/START); Funding period: May 1st, 2002 – April 30th, 2003; Direct Costs: \$50,000.

FUNDED INTRAMURAL RESEARCH GRANTS

Deak, T. (Principal Investigator). “Automated Microphoresis System for RNA, DNA and protein (BioRad; Experion)”; Center for Developmental Psychobiology, SUNY-Binghamton; 2006, Total Costs: \$12,375.

Deak, T., Bishop, C. & Tammariello, S.P. (Principal Investigator). “Stress-precipitated neurodegeneration in Parkinson’s Disease”; Interdepartmental Collaborative Grant, Research Foundation of SUNY-Binghamton; Funding period: April 7th, 2006 – June 30th, 2007; Total Costs: \$8,000.

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Deak, T. (Principal Investigator). “UV transilluminator and Gel Documentation System (BioRad; Gel-Doc XR)”; Harpur College Dean’s Equipment Fund, SUNY-Binghamton; 2006, Total Costs: \$9,000.

Deak, T. (Principal Investigator). “Mechanisms of stress sensitization”; Mini-grant program, Research Foundation of SUNY-Binghamton; Funding period: July 11th, 2005 – March 1st, 2006; Total Costs: \$1,000.

Deak, T. (Principal Investigator). “Thermocycler for RT-PCR (Eppendorf; MasterCycler Gradient)”; Center for Developmental Psychobiology, SUNY-Binghamton; 2005; Total Costs: \$6,100.

MENTORSHIP OF GRADUATE STUDENTS AND POST-DOCTORAL ASSOCIATES

Masters Degrees:

Arakawa, Keiko, May 2010 (expected)

Hollin Buck, May 2010 (expected); Graduate Research Fellowship under review at NSF)

Laura Richey, May 2008

Christopher J. Barnum, May 2006

Ph.D. Degrees:

Peter Blandino, Jr., 2008

Christopher J. Barnum, 2008

NRSA predoctoral fellowships:

Robert C. Ristuccia, 2005-2007; funded by NIH-NIAAA (role: Co-Sponsor)

Post-Doctoral Research Associates:

Hiroyuki Arakawa, October 2007-present

COURSES TAUGHT

Undergraduate courses:

Introductory Psychology, large undergraduate lecture (10x)

Neurobiology of Stress, undergraduate seminar (4x)

Graduate courses:

Neuropharmacology, graduate core curriculum (3x)

Neuroimmunology, graduate proseminar (2x)

Neurobiology of Stress, graduate proseminar (1x)

Behavioral Neuroscience II, graduate core curriculum (1x)

PEER-REVIEWED PUBLICATIONS

43. Arakawa, H., Blandino Jr., P. & **Deak, T.** (2009). Central infusion of Interleukin-1 receptor antagonist blocked the reduction in social investigation produced by prior stressor exposure. Under review.

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42. Blandino Jr., P, Barnum, C.J, Solomon, LG, Larish, Y, Lankow, BS & **Deak, T.** (2009). Transcriptional changes in the hypothalamus provide evidence for regionally-selective changes in IL-1 gene expression and microglial markers after acute stress. Under review.
41. Schiml-Webb, P.A., Miller, E., **Deak, T.** & Hennessy, M.B. (2009) Alpha-melanocyte stimulating hormone attenuates behavioral effects of corticotropin-releasing factor in isolated guinea pig pups. Under review.
40. Hennessy, M.B., **Deak, T.** & Schiml-Webb, P.A. (2009). Early attachment-figure separation and increased risk for later depression: Potential mediation by proinflammatory processes. *Neuroscience & Biobehavioral Reviews*, in press.
39. Perkeybile, A.M., Schiml-Webb, P.A., O'Brien, E., **Deak, T.** & Hennessy, M.B. (2009). Anti-inflammatory influences on behavioral, but not cortisol, responses during maternal separation. *Psychoneuroendocrinology*, in press.
38. Bishop, C., Krolewski, D.M., Eskow, K.L., Barnum, C.J., Dupre, K.B., **Deak, T.** & Walker P.D. (2009). Role of the striatum in the effects of 5-HT1A receptor stimulation in L-DOPA-treated hemiparkinsonian rat. *Journal of Neuroscience Research*, in press.
37. Hennessy, M.B., Schiml-Webb, P.A. & **Deak, T.** (2009). Separation, sickness, and depression: A new perspective on an old animal model. *Current Directions in Psychological Science*, in press.
36. **Deak, T.**, Arakawa, H., Bekkedal, M.Y.V. & Panksepp, J. (2009). Validation of a novel social investigation task that may dissociate social motivation from exploratory activity. *Behavioural Brain Research*, 199, 326-333.
35. Barnum, C.J., Eskow, K.L., Dupre, K., Blandino Jr., P., **Deak, T.** & Bishop, C. (2008). Exogenous corticosterone reduces L-DOPA-induced dyskinesia in the hemi-Parkinsonian rat: role for interleukin-1b. *Neuroscience*, 156, 30-41.
34. Barnum, C.J., Blandino Jr., P. & **Deak, T.** (2008). Social status modulates basal IL-1 concentrations in the hypothalamus of pair-housed rats and influences certain features of stress reactivity. *Brain, Behavior & Immunity*, 22, 517-527.
33. **Deak, T.** (2007). From classic aspects of the stress response to neuroinflammation and sickness: implications for individuals and offspring of diverse species. *International Journal of Comparative Psychology*, 20, 96-110.
32. Wright, A.J., Aguilar Soto, N., Baldwin, A.L., Bateson, M., Beale, C., Clark, C., **Deak, T.**, Edwards, E.F., Fernandez Rodriguez, A., Godinho, A., Hatch, L., Kakuschke, A., Lusseau, D., Martineau, D., Romero, L.M., Weilgart, L., Wintle, B., Notarbartolo di Sciara, G. & Martin, V. (2007). Anthropogenic noise as a stressor in animals: a multidisciplinary perspective. *International Journal of Comparative Psychology*, 20, 250-273.
31. Wright, A.J., Aguilar Soto, N., Baldwin, A.L., Bateson, M., Beale, C., Clark, C., **Deak, T.**, Edwards, E.F., Fernandez Rodriguez, A., Godinho, A., Hatch, L., Kakuschke, A., Lusseau, D., Martineau, D., Romero, L.M., Weilgart, L., Wintle, B., Notarbartolo di Sciara, G. & Martin, V. (2007). Do marine mammals experience stress related to anthropogenic noise? *International Journal of Comparative Psychology*, 20, 274-316.

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30. Barnum, C.J., Blandino Jr., P. & **Deak, T.** (2007). Adaptation of corticosterone and hyperthermic responses to stress following repeated stressor exposure. *Journal of Neuroendocrinology*, 19(8), 632-642.
29. Hennessy, M.B., Schiml-Webb, P.A., & **Deak, T.** (2007). α -MSH and indomethacin attenuate the passive responses of guinea pig pups: evidence for stress-induced sickness during isolation, *Psychoneuroendocrinology*, 32(5), 508-515.
28. Blandino Jr., P., Barnum, C.J. & **Deak, T.** (2006). The involvement of norepinephrine and microglia in hypothalamic and splenic IL-1 β responses to stress. *Journal of Neuroimmunology*, 173, 87-95.
27. **Deak, T.** & Panksepp, J. (2006). Play behavior in rats pretreated with scopolamine: increased play solicitation by the non-injected partner. *Physiology & Behavior*, 87(1), 120-125.
26. Schiml-Webb, P.A., **Deak, T.**, Greenlee, T.M., Maken, D. & Hennessy, M.B. (2006). Alpha melanocyte stimulating hormone reverses postulated stress-induced sickness behaviors in isolated guinea pig pups. *Behavioural Brain Research*, 168(2), 326-330.
25. **Deak, T.**, Bellamy, C. & Bordner, K.A. (2005). Protracted increases in core body temperature and interleukin-1 following acute administration of lipopolysaccharide: implications for the stress response. *Physiology & Behavior*, 85(3), 296-307.
24. **Deak, T.**, Bellamy, C., D'Agostino, L.G., Rosanoff, M., McElderry, N.K. & Bordner, K.A. (2005). Behavioral responses during the forced swim test are not affected by anti-inflammatory agents or acute illness induced by lipopolysaccharide. *Behavioural Brain Research*, 160, 125-134.
23. Der-Avakian, A., Will, M.J., Bland, S.T., **Deak, T.**, Nguyen, K.T., Schmid, M.J., Spencer, R.L., Watkins, L.R. & Maier, S.F. (2005). Surgical and pharmacological suppression of glucocorticoids prevents the enhancement of morphine conditioned place preference by uncontrollable stress in rats. *Psychopharmacology*, 179, 409-417.
22. **Deak, T.**, Bordner, K.A., McElderry, N.K., Barnum, C.J. & Blandino, P., Deak, M.M. & Tammariello, S.P. (2005). Stress-induced increases in hypothalamic IL-1: a systematic comparison of multiple stressor paradigms. *Brain Research Bulletin*, 64(6), 541-556.
21. Hennessy, M.B., **Deak, T.**, Schiml-Webb, P., Wilson, S.E., Greenlee, T.M. & McCall, E. (2004). Behavior of guinea pig pups during isolation in a novel environment may represent stress-induced sickness behaviors. *Physiology & Behavior*, 81, 5-13.
20. **Deak, T.**, Bellamy, C. & D'Agostino, L. (2003). Exposure to forced swim stress does not alter central production of IL-1. *Brain Research*, 972, 53-63.
19. Grahn, R.E., Hammack, S.E., Will, M.J., O'Connor, K.A., **Deak, T.**, Sparks, P.D., Watkins, L.R. & Maier, S.F. (2002). Blockade of alpha1 adrenoreceptors in the dorsal raphe nucleus prevents enhanced conditioned fear and impaired escape performance following uncontrollable stressor exposure in rats. *Behavioural Brain Research*, 134, 387-392.
18. Johnson, J.D., O'Connor, K.A., **Deak, T.**, Stark, M., Watkins, L.R. & Maier, S.F. (2002). Prior stressor exposure sensitizes LPS-induced cytokine production. *Brain, Behavior, & Immunity*, 16, 461-476.

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17. Fleshner, M., Campisi, J., **Deak, T.**, Greenwood, B.N., Kintzel, J.A., Leem, T.H., Smith, T.P. & Sorensen, B. (2002). Acute stressor exposure facilitates innate immunity more in physically active than in sedentary rats. *American Journal of Physiology*, 282, R1680-R1686.
16. Johnson, J.D., O'Connor, K.A., **Deak, T.**, Spencer, R.L., Watkins, L.R. & Maier, S.F. (2002). Prior stressor exposure primes the HPA axis. *Psychoneuroendocrinology*, 27(3), 353-365.
15. Hennessy, M.B., **Deak, T.** & Schiml-Webb, P.A. (2001). Stress-induced sickness behaviors: an alternative hypothesis for responses during maternal separation. *Developmental Psychobiology*, 39(2), 76-83.
14. Fleshner, M., **Deak, T.**, Nguyen, K.T., Watkins, L.R. & Maier, S.F. (2001). Endogenous glucocorticoids play a positive regulatory role in the anti-Keyhole Limpet Hemocyanin in vivo antibody response. *Journal of Immunology*, 166, 3813-3819.
13. Moraska, A., **Deak, T.**, Spencer, R.L., Roth, D. & Fleshner, M. (2000). Treadmill running produces both positive and negative physiological adaptations in Sprague-Dawley rats. *American Journal of Physiology*, 279(4), R1321-R1329.
12. Spencer, R.L., Kalman, B.A., Cotter, C.S. & **Deak T.** (2000). Discrimination between changes in glucocorticoid receptor expression and activation in rat brain using western blot analysis. *Brain Research*, 868, 275-286.
11. Nguyen, K.T., **Deak, T.**, Will, M.J., Hunsaker, B.N., Fleshner, M., Watkins, L.R. & Maier, S.F. (2000). Timecourse and corticosterone sensitivity of the brain, pituitary, and serum interleukin-1 β response to acute stress. *Brain Research*, 859, 193-201.
10. **Deak, T.**, Nguyen, K.T., Cotter, C.S., Fleshner, M., Watkins, L.R., Maier, S.F. & Spencer, R.L. (1999). Long term changes in mineralocorticoid and glucocorticoid receptor occupancy following exposure to an acute stressor. *Brain Research*, 847, 211-220.
9. **Deak, T.**, Nguyen, K.T., Fleshner, M., Watkins, L.R. & Maier, S.F. (1999). Acute stress may facilitate recovery from a subcutaneous bacterial challenge. *Neuroimmunomodulation*, 6(5), 344-354.
8. **Deak, T.**, Nguyen, K.T., Ehrlich, A.L., Watkins, L.R., Spencer, R.L., Maier, S.F., Licinio J., Wong, M.-L., Chrousos, G.P., Webster, E. & Gold, P.W. (1999). The impact of the nonpeptide corticotropin-releasing hormone antagonist Antalarmin on behavioral and endocrine responses to stress. *Endocrinology*, 140(1), 79-86.
7. Helmreich, D.L., Watkins, L.R., **Deak, T.**, Maier, S.F., Akil, H. & Watson, S.J. (1999). The effect of stressor controllability on stress-induced neuropeptide mRNA expression within the paraventricular nucleus of the hypothalamus. *Journal of Neuroendocrinology*, 11, 121-128.
6. Milligan, E.D., Nguyen, K.T., **Deak, T.**, Hinde, J.L., Fleshner, M., Watkins, L.R. & Maier, S.F. (1998). The long term acute phase-like responses that follow acute stressor exposure are blocked by alpha-melanocyte stimulating hormone. *Brain Research*, 810, 48-58.
5. Nguyen, K.T., **Deak, T.**, Owens, S.M., Kohno, T., Fleshner, M., Watkins, L.R., Maier, S.F. (1998). Exposure to acute stress induces brain interleukin-1 β protein in the rat. *Journal of Neuroscience*, 18(6), 2239-2246.

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4. **Deak, T.**, Meriwether, J.L., Fleshner, M., Spencer, R.L., Abouhamze, A., Moldawer, L.L., Grahn, R.E., Watkins, L.R. & Maier, S.F. (1997). Evidence that brief stress may induce the acute phase response in rats. *American Journal of Physiology*, 273(42), 1998-2004.
3. Fleshner, M., Silbert, L., **Deak, T.**, Goehler, L.E., Martin, D., Watkins, L.R. & Maier, S.F. (1997). TNF- α induced corticosterone elevation but not serum protein or corticosterone binding globulin reduction is vagally mediated. *Brain Research Bulletin*, 44(6), 701-706.
2. Galea, L.A.M., McEwen, B.S., Tanapat, P., **Deak, T.**, Spencer, R.L. & Dhabhar, F.S. (1997). Sex differences in dendritic atrophy of CA3 pyramidal neurons in response to chronic restraint stress. *Neuroscience*, 81(3), 689-698.
1. Fleshner, M., **Deak, T.**, Spencer, R.L., Laudenslager, M.L., Watkins, L.R. & Maier, S.F. (1995). A long-term increase in basal levels of corticosterone and a decrease in corticosteroid-binding globulin following acute stressor exposure. *Endocrinology*, 136(12), 5336-5342.

INVITED REVIEWS, COMMENTARIES & BOOK CHAPTERS

6. **Deak, T.** (2008). Immune cells and cytokine circuits: Toward a working model for understanding direct immune-to-adrenal communication pathways. *Endocrinology*, 149(4), 1433-1435.
5. **Deak, T.** (2007). From hippocampus to dorsal horn: the pervasive impact of IL-1 on learning and memory spans the length of the neuroaxis. *Brain, Behavior & Immunity*, 21, 746-747.
4. Hennessy, M.B., Schiml-Webb, P.A., Barnum, C.J. & **Deak, T.** (2007). Immune influences on behavior and endocrine responses during early development. In Czerbska, M.T. (Ed.). *Psychoneuroendocrinology Research Trends*. Nova Science Publishers, Inc. New York, NY, 293-320.
3. **Deak, T.** & Larish, Y. (2006). Methods and motives for use of the forced swim test as an animal model of behavioral despair/depression. In Anderson, M.A. (Ed.). *Tasks and techniques: A sampling of methodologies for the investigation of animal learning, behavior and cognition*. Nova Science Publishers, Inc., 3-18.
2. **Deak, T.** & Panksepp, J. (2004). Stress, sleep and sexuality in psychiatric disorders. In Panksepp, J. (Ed.), *Textbook of Biological Psychiatry*, Wiley-Liss, Inc. NY, 111-144.
1. Maier, S.F., Nguyen, K.T., **Deak, T.**, Milligan, E.D. & Watkins, L.R. (1999). Stress, learned helplessness, and brain interleukin-1 β . In: R.Dantzer, B.B. Wollmann & R. Yirmiya (Eds.). *Cytokines, stress, and depression*. New York: Kluwer Academic/Plenum Publishers, 235-250.

INVITED LECTURES & COLLOQUIA

23. "Inflammatory signaling pathways at the interface between stress physiology, endocrine function and behavior." Presented at University of Colorado, Boulder, CO. January 15, 2009.
22. "In sickness and in health: The complex interplay between neuroinflammation, stress, and development." Presented at Colorado State University, Fort Collins, CO. November 10, 2008.

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21. "Neuroinflammation and sickness as a consequence of stress: implications for psychopathology and its treatment" presented at Wright State University, Dayton, OH. April 24th, 2008.
20. "Neuroinflammation and sickness as a consequence of stress" presented at multi-disciplinary conference on noise stress in marine mammals, Lanzarote, Spain. June 6, 2007.
19. "Behavioral Neuroscience in real time: an evolution of methods" Presented at the State University of New York (SUNY), Department of Psychology, Binghamton, NY. January 29, 2007.
18. "Neuroinflammation and sickness as a consequence of stress" presented at George Mason University, Fairfax, VA. January 16, 2007.
17. "Mechanisms of increased IL-1 produced by footshock exposure" presented at the Developmental Exposure Alcohol Research Center annual retreat, Syracuse, NY. July 19, 2006.
16. "Broad issues in Neuroimmunology" presented at Upstate Medical University, Syracuse, NY. May 5, 2006.
15. "Precipitation of a sickness-like syndrome by diverse stimuli" presented at Connecticut College, New London, CT. February 6, 2006.
14. "Stressor specificity of central IL-1 responses to stress" presented at the State University of New York (SUNY), Department of Biology, Binghamton, NY. March 19, 2004.
13. "A selective role for pro-inflammatory cytokines in mediating consequences of stressor exposure" Key Note address presented at the annual Conner Memorial Lecture Series at Bowling Green State University, Bowling Green, OH, March 21, 2003.
12. "Selective induction of pro-inflammatory cytokines following diverse stressor paradigms" presented at the annual Central New York Neurofest, Geneva, NY. April 5, 2002.
11. "Long Term Consequences of Acute Stress on Behavior and Immunity" presented at the University of Nebraska, Department of Psychology, Omaha, NE. March 13, 2001.
10. "Long Term Consequences of Acute Stress on Behavior and Immunity" presented at the University of Delaware, Department of Psychology, Newark, DE. March 8, 2001.
9. "Long Term Consequences of Acute Stress on Behavior and Immunity" presented at the State University of New York (SUNY), Department of Psychology, Binghamton, NY. March 7, 2001.
8. "Stress-Induced Sickness Responses" presented at Wright State University, Department of Psychology, Dayton, OH. February 15, 2001.
7. "Long Term Consequences of Acute Stress on Behavior and Immunity" presented at Black Hills State University, Department of Psychology, Spearfish, SD. January 26, 2001.
6. "Theoretical and Methodological Advances in Stress Research" presented at the University of Virginia, Department of Pathology, Charlottesville, VA. April 28, 2000
5. "Neuroendocrine and Immunological Consequences of Acute Stressor Exposure" presented to the Tri-Service Consortium for Toxicological Research, Dayton, OH. March 29, 2000

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4. “Stress and Health from a Biological Perspective” presented at Creighton University, Department of Psychology, Omaha, NE. March 17, 2000
3. “Long Term Consequences of Acute Stress on Behavior and Immunity” presented at the College of William and Mary, Department of Psychology, Williamsburgh, VA. March 13, 2000.
2. “Behavioral and Neuroendocrine Responses to Stress: A Role for CRH” presented at the University of Colorado, Department of Psychology, Boulder, CO. October 8, 1997.
1. “Leading Small Group Discussions: A Crash Course in Teaching” presented at the Graduate Teacher Program Fall Intensive, University of Colorado, Boulder, CO. August, 1996.

PUBLISHED ABSTRACTS & POSTER PRESENTATIONS

75. Buck, H.M., Blandino Jr., P & **Deak, T.** (2009). Cytokines at the interface between acute ethanol withdrawal and stressor exposure. Research Society on Alcoholism.
74. **Deak, T.** Richey, L., Bordner, K.A. & Buck, H.M. (2009). Basal fluctuations in neuroinflammatory factors after acute ethanol exposure in rats: a potential role for microglia? Research Society on Alcoholism.
73. Barnum, C.J., Blandino, Jr., P. & **Deak, T.** (2008). The latency to defeat determines degree of adaptation in core body temperature to repeated social defeat in rats. Society for Neuroscience Annual Meeting, Washington, D.C.
72. Bishop, C., Dupre, K.B., Barnum, C.J., **Deak, T.** & Eskow, K.L. (2008). L-DOPA treatment reduces serotonin function in depression-related structures of the hemiparkinsonian rat. Society for Neuroscience Annual Meeting, Washington, D.C.
71. Arakawa, K., Arakawa, H., Blandino Jr., P., Eberle, J.A, Barnum, C.J., **Deak, T.** (2008). Acute stress increases central expression of interleukin-1 in regularly cycling female rats at all stages of the estrus cycle except during metestrus. Society for Neuroscience Annual Meeting, Washington, D.C.
70. Arakawa, H., Arakawa, K. & **Deak, T.** (2008). Developmental emergence of socially aversive signals induced by immune challenge in male rats: implications for gonadal modulation. Society for Neuroscience Annual Meeting, Washington, D.C.
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LABORATORY TECHNIQUES & SKILLS

General

Fluent on both MacIntosh and PC platforms (Microsoft Word/Excel/Power Point, Statview/SuperAnova, JMP, Keynote, Claris Draw, Adobe Illustrator/Photoshop, Cricket Graph, etc.)

Rodent Models and Surgical Techniques

Brain cannulations, drug microinjections and lesions in the rat
Brain dissections in rat (hippocampus, hypothalamus, cortex, cerebellum, pituitary, nucleus tractus solitarius/area postrema, ventral tegmental area, nucleus accumbens)
Tissue slice preparation for *in vitro* electrophysiology
Electrophysiological recording of field EPSPs/IPSPs using 64 channel multi-electrode array (limited experience)
Adrenalectomy and ovariectomy in rat
Cecal ligation and puncture (animal model of infection)
Thermister implantation and core body temperature measurement
Basic histology, light microscopy and image analysis (NIH Image, Un-scan-it, Imagegauge)
Behavioral models: social play/interaction testing, conditioned fear, escape behavior, elevated plus maze, forced swim test
Developed two distinct models of subcutaneous inflammation/infection to study wound healing

Biochemical and Molecular assays

Competitive binding assay for corticosteroid binding globulin (CBG)
Receptor binding assay for corticosteroid receptors (MR & GR)
Scatchard analysis
Bradford & Lowry protein assays
Seromuroid protein assay (α 1-acid glycoprotein)
Radioimmunoassays for corticosterone, adrenocorticotrophic hormone (ACTH), and testosterone
Western blotting (glucocorticoid receptors, mineralocorticoid receptors, CRH receptors, IL-1, pro-IL-1, CD45, CD14, MHCII, etc.)
Enzyme linked immunosorbent assays (ELISAs; IL-1, IL-6, IL-10, BDNF, etc.)
Bacterial culture (*Escherichia coli* & *Streptococcus mutans*)
Reverse Transcription - Polymerized Chain Reaction (RT-PCR) – in real time and classic version where PCR product is resolved by gel electrophoresis; includes all steps leading up to RT-PCR as well (RNA extraction & purification, RNA quantification, first strand synthesis, etc.)

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PROFESSIONAL REFERENCES

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