

**MARK S. BLUMBERG, PH.D.**  
F. WENDELL MILLER DISTINGUISHED PROFESSOR

**Business Address:**

Department of Psychology  
E11 Seashore Hall  
University of Iowa  
Iowa City, IA 52242

**Office:** 319-335-2424

**Lab:** 319-335-3975

**Fax:** 319-335-0191

**E-mail:** mark-blumberg @uiowa.edu

**Web:** <http://www.psychology.uiowa.edu/Faculty/Blumberg/Blumberg.html>

## **EDUCATIONAL AND PROFESSIONAL HISTORY**

### **EDUCATION**

The University of Chicago, Biopsychology, Ph.D., 1988

The University of Chicago, Biopsychology, M.A., 1987

Brandeis University, Physics, Philosophy, A.B. *cum laude*, 1983

### **PROFESSIONAL AND ACADEMIC POSITIONS**

Professor, Department of Biology, The University of Iowa, 2010-present

Interim Director, The Delta Center, The University of Iowa, July-December, 2010

Professor, Department of Psychology, The University of Iowa, 2001-present

Associate Professor, Department of Psychology, The University of Iowa, 1996-2001

Assistant Professor, Department of Psychology, The University of Iowa, 1992-1996

Research Associate, Indiana University - Bloomington, 1988-1992

Research Assistant, The University of Chicago, 1983-1988

### **HONORS AND AWARDS**

F. Wendell Miller Distinguished Professor, The University of Iowa, 2009-2014

Regents Award for Faculty Excellence, The University of Iowa, 2009

Editor-in-Chief, *Behavioral Neuroscience*, 2008-2014

President, International Society for Developmental Psychobiology (ISDP), 2007-2008

Starch Faculty Fellow, The University of Iowa, 2006-2009

Fellow, American Psychological Association (APA), Division 6 (Behavioral Neuroscience and Comparative Psychology), 2005

Independent Scientist Award (K02), National Institute of Mental Health, 2002-2012

Associate Editor, *Behavioral Neuroscience*, 2001-2007

Faculty Scholar Award, The University of Iowa, 1999-2002

American Psychological Association (APA) Distinguished Scientific Award for an Early Career Contribution to Psychology in the area of animal learning and behavior, comparative, 1997

Editorial Board, *Developmental Psychobiology*, 1997-present

Graduate Fellowship, The University of Chicago, 1983-1988

## MEMBERSHIPS

Society for Neuroscience  
International Society for Developmental Psychobiology  
Sleep Research Society  
American Psychological Association

## PUBLICATIONS

### JOURNALS

1. Blumberg, M. S. In search of the elemental sleep circuit. In preparation.
2. Gall, A. J., Todd, W. D., & Blumberg, M. S. Development of non-humoral control of SCN activity and arousal. Submitted.
3. Blumberg, M. S. Homology, correspondence, and continuity across development: The case of sleep. *Developmental Psychobiology*, in press.
4. Todd, W. D., Gall, A. J., & Blumberg, M. S. Distinct retinohypothalamic innervation patterns predict the developmental emergence of species-typical circadian preference in nocturnal Norway rats and diurnal Nile grass rats. *Journal of Comparative Neurology*, in press.
5. Schmidt, D., Best, J., Weiner, J. A., & Blumberg, M. S. Random graph and stochastic process contributions to network dynamics. *AIMS Proceedings*, 2, 1279-1288, 2011.
6. Karlsson, K. Æ., Arnardóttir, H., Robinson, S. R., and Blumberg, M. S. Dynamics of sleep-wake cyclicity across the fetal period in sheep (*Ovis aries*). *Developmental Psychobiology*, 53: 89-95, 2011.
7. Blumberg, M. S. Beyond dreams: Do sleep-related movements contribute to brain development? *Frontiers in Neurology*, 1, 140, 2010.
8. Marcano-Reik, A. J., Prasad, T., Weiner, J. A., & Blumberg, M. S. An abrupt development shift in callosal modulation of sleep-related spindle bursts coincides with the emergence of excitatory-inhibitory balance and a reduction of somatosensory cortical plasticity. *Behavioral Neuroscience*, 124: 600-611, 2010.
9. Wasserman, E. A., and Blumberg, M. S. Designing minds: How should we explain the origins of novel behaviors? *American Scientist*, May-June, pp. 183-185, 2010.
10. Seelke, A. M. H., & Blumberg, M. S. Developmental appearance and disappearance of cortical events and oscillations in infant rats. *Brain Research*, 1324: 34-42, 2010.
11. Mohs, E. J., & Blumberg, M. S. Neocortical activation of the hippocampus during sleep in newborn rats. *Journal of Neuroscience*, 30: 3438-3449, 2010.
12. Todd, W. D., Gibson, J. L., Shaw, C. S., and Blumberg, M. S. Brainstem and hypothalamic regulation of sleep pressure and rebound in newborn rats. *Behavioral Neuroscience*, 124: 69-78, 2010.
13. Wasserman, E. A., and Blumberg, M. S. Evolution of the monkey crouch (letter to editor). *Science*, 325: 812, 2009.
14. Spencer, J. P., Samuelson, L. K., Blumberg, M. S., McMurray, R., Robinson, S. R., and Tomblin, J. B. Seeing the world through a third eye: Developmental systems theory looks beyond the nativist-empiricist debate. *Child Development Perspectives*, 3: 103-105, 2009.
15. Spencer, J. P., Blumberg, M. S., McMurray, R., Robinson, S. R., Samuelson, L. K., and Tomblin, J. B. Short arms and talking eggs: Why we should no longer abide the nativist-empiricist debate. *Child Development Perspectives*, 3: 79-87, 2009.

16. Gall, A. J., Joshi, B., Best, J., Florang, V. R., Doorn, J. A., & Blumberg, M. S. Developmental emergence of power-law wake behavior depends upon the functional integrity of the locus coeruleus. *Sleep*, 32: 920-926, 2009.
17. Blumberg, M. S. Evolution shapes systems, not just genes (letter to editor). *Nature*, 457: 785 (Feb. 12), 2009.
18. Marcano-Reik, A. J., & Blumberg, M. S. The corpus callosum modulates spindle-burst activity within homotopic regions of somatosensory cortex in newborn rats. *European Journal of Neuroscience*, 28: 1457-1466, 2008.
19. Mohns, E. J., & Blumberg, M. S. Synchronous bursts of neuronal activity in the developing hippocampus: Modulation by active sleep and association with emerging gamma and theta rhythms. *Journal of Neuroscience*, 28: 10134-10144, 2008.
20. Gall, A. J., Todd, W. D., Ray, B., Coleman, C. M., & Blumberg, M. S. The development of day-night differences in sleep and wakefulness in Norway rats and the effect of bilateral enucleation. *Journal of Biological Rhythms*, 23: 232-241, 2008.
21. Seelke, A. M. H., & Blumberg, M. S. The microstructure of active and quiet sleep as cortical delta activity emerges in infant rats. *Sleep*, 31: 691-699, 2008.
22. Mohns, E. J., Karlsson, K. Æ., & Blumberg, M. S. Developmental emergence of transient and persistent hippocampal events and oscillations and their association with infant seizure susceptibility. *European Journal of Neuroscience*, 26: 2719-2730, 2007.
23. Blumberg, M. S., Karlsson, K. Æ., & Seelke, A. M. H. Sleep, development, and human health. *Sleep*, 30: 549-550, 2007.
24. Blumberg, M. S. Anthropomorphism and evidence (invited commentary). *Comparative Cognition & Behavior Reviews*, 2: 145-146, 2007.
25. Gall, A. J., Poremba, A., & Blumberg, M. S. Brainstem cholinergic modulation of sleep and wakefulness in infant rats. *European Journal of Neuroscience*, 25: 3367-3375, 2007.
26. Blumberg, M. S., Coleman, C., Johnson, E. D., & Shaw, C. Developmental divergence of sleep-wake patterns in orexin knockout and wild-type mice. *European Journal of Neuroscience*, 25: 512-518, 2007.
27. Wasserman, E. A., & Blumberg, M. S. Designing minds (commentary). *APS Observer*, 19 (10): 25-26, 2006.
28. Karlsson, K. Æ., Mohns, E. J., Vianna di Prisco, G., & Blumberg, M. S. On the co-occurrence of startles and hippocampal sharp waves in newborn rats. *Hippocampus*, 16: 959-965, 2006.
29. Mohns, E. J., Karlsson, K. Æ., & Blumberg, M. S. The preoptic hypothalamus and basal forebrain play opposing roles in the descending modulation of sleep and wakefulness in infant rats. *European Journal of Neuroscience*, 23: 1301-1310, 2006.
30. Blumberg, M. S., Seelke, A. M. H., Lowen, S. B., & Karlsson, K. Æ. Dynamics of sleep-wake cyclicity in developing rats. *Proceedings of the National Academy of Sciences*, 102: 14860-14864, 2005.
31. Middlemis-Brown, J. E., Johnson, E. D., and Blumberg, M. S. Separable brainstem and forebrain contributions to ultrasound production in infant rats. *Behavioral Neuroscience*, 119: 1111-1117, 2005.
32. Kreider, J. C., & Blumberg, M. S. Geotaxis and beyond: Commentary on Motz and Alberts (2005). *Neurotoxicology and Teratology*, 27: 535-537, 2005.
33. Seelke, A. M. H., Karlsson, K. Æ., Gall, A. J., & Blumberg, M. S. Extraocular muscle activity, rapid eye movements, and the development of active and quiet sleep. *European Journal of Neuroscience*, 22: 911-920, 2005.

34. Karlsson, K. Æ., Gall, A. J., Mohns, E. J., Seelke, A. M. H., & Blumberg, M. S. The neural substrates of infant sleep in rats. *PLoS Biology*, 3: 891-901, 2005.
35. Blumberg, M. S., Johnson, E. D., and Middlemis-Brown, J. E. Inhibition of ultrasonic vocalizations by beta-adrenoceptor agonists. *Developmental Psychobiology*, 47: 66-76, 2005.
36. Seelke, A. H., & Blumberg, M. S. Thermal and nutritional modulation of sleep in infant rats. *Behavioral Neuroscience*, 19: 603-611, 2005.
37. Blumberg, M. S., Karlsson, K. Æ., Seelke, A. M. H., & Mohns, E. J. The ontogeny of mammalian sleep: A response to Frank and Heller (2003). *Journal of Sleep Research*, 14: 91-101, 2005.
38. Karlsson, K. Æ., & Blumberg, M. S. Active medullary control of atonia in week-old rats. *Neuroscience*, 130: 275-283, 2005.
39. Blumberg, M. S., Middlemis-Brown, J. E., and Johnson, E. D. Sleep homeostasis in infant rats. *Behavioral Neuroscience*, 118: 1253-1261, 2004.
40. Seelke, A. H., & Blumberg, M. S. Sniffing during sleep and wakefulness in infant rats. *Behavioral Neuroscience*, 118: 267-273, 2004.
41. Karlsson, K. Æ., & Blumberg, M. S. Temperature-induced reciprocal activation of infant hippocampal field activity. *Journal of Neurophysiology*, 91: 583-588, 2004.
42. Karlsson, K. Æ., Kreider, J. C., & Blumberg, M. S. Hypothalamic contribution to sleep-wake cycle development. *Neuroscience*, 123: 575-582, 2004.
43. Blumberg, M. S., & Sokoloff, G. Hard heads and open minds: A reply to Panksepp. *Psychological Review*, 110: 389-394, 2003.
44. Karlsson, K. Æ., & Blumberg, M. S. Hippocampal theta in the newborn rat is revealed under conditions that promote REM sleep. *Journal of Neuroscience*, 23: 1114-1118, 2003.
45. Karlsson, K. Æ., & Blumberg, M. S. The union of the state: Myoclonic twitching is coupled with nuchal muscle atonia in infant rats. *Behavioral Neuroscience*, 116: 912-917, 2002.
46. Sokoloff, G., & Blumberg, M. S. Contributions of endothermy to huddling behavior in infant Norway rats (*Rattus norvegicus*) and Syrian golden hamsters (*Mesocricetus auratus*). *Journal of Comparative Psychology*, 116: 240-246, 2002.
47. Sokoloff, G., Blumberg, M. S., Boline, E. A., Johnson, E. D., & Streeper, N. M. Thermoregulatory behavior in infant Norway rats (*Rattus norvegicus*) and Syrian golden hamsters (*Mesocricetus auratus*): Arousal, orientation, and locomotion. *Journal of Comparative Psychology*, 116: 228-239, 2002.
48. Blumberg, M. S., Lewis, S. J., & Sokoloff, G. Incubation temperature modulates post-hatching thermoregulatory behavior in the Madagascar ground gecko, *Paroedura pictus*. *Journal of Experimental Biology*, 205: 2777-2784, 2002.
49. Blumberg, M. S., Sokoloff, G., Kirby, R. F., Knoot, T. G., & Lewis, S. J. Effects of antihypertensive drugs on ultrasound production and cardiovascular responses in 15-day-old rats. *Behavioural Brain Research*. 131: 37-46, 2002.
50. Blumberg, M. S., Knoot, T. G., & Kirby, R. F. Neural and hormonal control of arterial pressure during thermal challenge in unanesthetized infant rats. *American Journal of Physiology*. 281: R1514-R1521, 2001.
51. Sokoloff, G., & Blumberg, M. S. Competition and cooperation among huddling infant rats. *Developmental Psychobiology*, 39: 65-75, 2001.
52. Blumberg, M. S., & Sokoloff, G. Do infant rats cry? *Psychological Review*, 108: 83-95, 2001.
53. Kreider, J. C., & Blumberg, M. S. Mesopontine contribution to the expression of active "twitch" sleep in decerebrate week-old rats. *Brain Research*, 872: 149-159, 2000.

54. Sokoloff, G., Blumberg, M. S., & Adams, M. M. A comparative analysis of huddling in infant Norway rats and Syrian golden hamsters: Does endothermy modulate behavior? *Behavioral Neuroscience*, 114: 585-593, 2000.
55. Blumberg, M. S., Kreber, L., Sokoloff, G., Kent, K. Cardiovascular mediation of clonidine-induced ultrasound production in infant rats. *Behavioral Neuroscience*: 114: 602-608, 2000.
56. Robinson, S. R., Blumberg, M. S., Lane, M., & Kreber, L. Spontaneous motor activity in fetal and infant rats is organized into discrete multilimb bouts. *Behavioral Neuroscience*: 114: 328-336, 2000.
57. Blumberg, M. S., Sokoloff, G., & Kent, K. J. A developmental analysis of clonidine's effects on cardiac rate and ultrasound production in infant rats. *Developmental Psychobiology*: 36: 186-193, 2000.
58. Blumberg, M. S., & Sokoloff, G., Kirby, R. F., & Kent, K. J. Distress vocalizations in infants: What's all the fuss about? *Psychological Science*, 11: 78-81, 2000.
59. Blumberg, M. S., Sokoloff, G., & Kent, K. J. Cardiovascular concomitants of ultrasound production during cold exposure in infant rats. *Behavioral Neuroscience*, 113: 1274-1282, 1999.
60. Kirby, R. F., Sokoloff, G., Perdomo, E., & Blumberg, M. S. Thermoregulatory and cardiac responses of infant spontaneously hypertensive and Wistar-Kyoto rats to cold exposure. *Hypertension*, 33: 1465-1469, 1999.
61. Kreider, J. C., & Blumberg, M. S. Geotaxis in two-week-old Norway rats (*Rattus norvegicus*): A reevaluation. *Developmental Psychobiology*, 35: 35-42, 1999.
62. Blumberg, M. S., Deaver, K., & Kirby, R. F. Leptin disinhibits BAT thermogenesis in infants after maternal separation. *American Journal of Physiology*, 276: R606-R610, 1999.
63. Sokoloff, G., & Blumberg, M. S. Active sleep in cold-exposed infant Norway rats and Syrian golden hamsters: The role of brown adipose tissue thermogenesis. *Behavioral Neuroscience*, 112: 695-706, 1998.
64. Sokoloff, G., Kirby, R. F., & Blumberg, M. S. Further evidence that BAT thermogenesis modulates cardiac rate in infant rats. *American Journal of Physiology*, 274: R1712-1717, 1998.
65. Blumberg, M. S., & Sokoloff, G. Thermoregulatory competence and behavioral expression in the young of altricial species -- Revisited. *Developmental Psychobiology*, 33: 107-123, 1998.
66. Kirby, R. F., & Blumberg, M. S. Maintenance of arterial pressure in infant rats during moderate and extreme thermal challenge. *Developmental Psychobiology*, 32: 169-176, 1998.
67. Blumberg, M. S. Ontogeny of cardiac rate regulation and brown fat thermogenesis in golden hamsters (*Mesocricetus auratus*). *Journal of Comparative Physiology B*, 167: 552-557, 1997.
68. Blumberg, M. S., & Sokoloff, G. Dynamics of brown fat thermogenesis in week-old rats: Evidence of relative stability during moderate cold exposure. *Physiological Zoology*, 70: 324-330, 1997.
69. Blumberg, M. S., Sokoloff, G., & Kirby, R. F. Brown fat thermogenesis and cardiac rate regulation during cold challenge in infant rats *American Journal of Physiology*, 272: R1308-R1313, 1997.
70. Sokoloff, G., & Blumberg, M. S. Thermogenic, respiratory, and ultrasonic responses of week-old rats across the transition from moderate to extreme cold exposure. *Developmental Psychobiology*, 30: 181-194, 1997.
71. Blumberg, M. S., & Wasserman, E. A. Animals have minds? *American Psychologist*, 51: 59-60, 1996.

72. Blumberg, M. S., & Stolba, M. A. Thermogenesis, myoclonic twitching, and ultrasonic vocalization in neonatal rats during moderate and extreme cold exposure. *Behavioral Neuroscience*, 110: 305-314, 1996.
73. Blumberg, M. S., & Lucas, D. E. A developmental and component analysis of active sleep. *Developmental Psychobiology*, 29: 1-22, 1996.
74. Blumberg, M. S., Schalk, S. L., & Sokoloff, G. Pontine and basal forebrain transections disinhibit brown fat thermogenesis in neonatal rats. *Brain Research*, 699: 214-220, 1995.
75. Gagliardi, J. L., Kirkpatrick-Steger, K. K., Thomas, J., Allen, G. J., & Blumberg, M. S. Seeing and knowing: Knowledge attribution versus stimulus control in adult humans (*Homo sapiens*). *Journal of Comparative Psychology*, 109: 107-114, 1995.
76. Blumberg, M. S., & Wasserman, E. A. Animal mind and the argument from design. *American Psychologist*, 50: 133-144, 1995.
77. Blumberg, M. S., & Lucas, D. E. Dual mechanisms of twitching during sleep in neonatal rats. *Behavioral Neuroscience*, 108: 1196-1202, 1994.
78. Blumberg, M. S., Efimova, I. V., & Alberts, J. R. Thermogenesis during ultrasonic vocalization by rat pups isolated in a warm environment: A thermographic analysis. *Developmental Psychobiology*, 25: 497-510, 1992.
79. Blumberg, M. S., Mennella, J. A., McClintock, M. K., & Moltz, H. Facultative sex ratio adjustment in Norway rats: Litters born asynchronously are female-biased. *Behavioral Ecology and Sociobiology*, 31: 401-408, 1992.
80. Blumberg, M. S. Rodent ultrasonic short calls: Locomotion, biomechanics, and communication. *Journal of Comparative Psychology*, 106: 360-365, 1992.
81. Blumberg, M. S., & Alberts, J. R. Functions and effects in animal communication: Reactions to Guilford & Dawkins. *Animal Behaviour*, 44: 382-383, 1992.
82. Blumberg, M. S., Efimova, I. V., & Alberts, J. R. Ultrasonic vocalizations by rat pups: The primary importance of ambient temperature and the thermal significance of contact comfort. *Developmental Psychobiology*, 25: 229-250, 1992.
83. Blumberg, M. S., & Alberts, J. R. Both hypoxia and milk deprivation diminish metabolic heat production and ultrasound emission by rat pups during cold exposure. *Behavioral Neuroscience*, 105: 1030-1037, 1991.
84. Blumberg, M. S. Prostaglandin E<sub>2</sub> accelerates sexual behavior in male rats. *Physiology and Behavior*, 50: 95-99, 1991.
85. Blumberg, M. S., & Alberts, J. R. On the significance of similarities between ultrasonic vocalizations of infant and adult rats. *Neuroscience and Biobehavioral Reviews*, 15: 383-390, 1991.
86. Blumberg, M. S., & Alberts, J. R. Ultrasonic vocalizations by rat pups in the cold: An acoustic by-product of laryngeal braking? *Behavioral Neuroscience*, 104: 808-817, 1990.
87. Mennella, J. A., Blumberg, M. S., McClintock, M. K., & Moltz, H. Inter-litter competition and communal nursing among Norway rats: advantages of birth synchrony. *Behavioral Ecology and Sociobiology*, 27: 183-190, 1990.
88. Blumberg, M. S. An allometric analysis of hippocampal theta: The significance of brain metabolic rate. *Brain, Behavior and Evolution*, 34: 351-356, 1989.
89. Blumberg, M. S., & Moltz, H. How the nose cools the brain during copulation in the male rat. *Physiology and Behavior*, 43: 173-176, 1988.
90. Blumberg, M. S., & Moltz, H. Hypothalamic temperature and the 22 kHz vocalization of the male rat. *Physiology and Behavior*, 40: 637-640, 1987.

91. Blumberg, M. S., Mennella, J. A., & Moltz, H. Hypothalamic temperature and deep body temperature during copulation in the male rat. *Physiology and Behavior*, 39: 367-370, 1987.
92. Wingfield, A., Milstein, G., & Blumberg, M. S. Cerebral specialization and hemispheric performance asymmetries in narrative memory. *Perceptual and Motor Skills*, 59: 39-42, 1984.

## CHAPTERS

1. Blumberg, M. S. Ontogeny of sleep. In: *Encyclopedia of Sleep*, edited by K. A. Kushida. Oxford: Elsevier, in press.
2. Blumberg, M. S. Phenomenology and function of myoclonic twitching in developing rats. To appear in *Rapid eye movement sleep: Regulation and function*, edited by B. N. Mallick, S. R. Pandi-Perumal, R. W. McCarley, and A. Morrison. Cambridge: Cambridge University Press, 2011, pp. 130-139.
3. Marcano-Reik, A. J., & Blumberg, M. S. Neuroscience. In: *The Corsini Encyclopedia of Psychology and Behavioral Science*. Hoboken, NJ: John Wiley, 2010, pp. 1086-1088.
4. Blumberg, M. S., & Seelke, A. M. H. The form and function of infant sleep: From muscle to neocortex. In: *The Oxford Handbook of Developmental Behavioral Neuroscience*, edited by M. S. Blumberg, J. H. Freeman, and S. R. Robinson. New York: Oxford University Press, 2010, pp. 391-423.
5. Blumberg, M. S., & Freeman, J. H., and Robinson, S. R. Introduction: A new frontier for developmental behavioral neuroscience. In: *The Oxford Handbook of Developmental Behavioral Neuroscience*, edited by M. S. Blumberg, J. H. Freeman, and S. R. Robinson. New York: Oxford University Press, 2010, pp. 1-4.
6. Mohs, E. J., & Blumberg, M. S. Hippocampal EEG in the neonatal rat: Development of normal and pathological activity. In: *Encyclopedia of Basic Epilepsy Research*, Vol. 2, edited by P. A. Schwartzkroin. Oxford: Academic Press, 2009, pp. 1061-1065.
7. Sokoloff, G., & Blumberg, M. S. Vocalization. *The Behaviour of the Laboratory Rat: A Handbook With Tests*, edited by B. Kolb and I. Q. Whishaw. Oxford: Oxford University Press. 2004, pp. 371-380.
8. Blumberg, M. S. Behavioral thermoregulation. In: *Encyclopedia of Animal Behavior*, edited by M. Bekoff. Westport, CT: Greenwood Press, 2004, pp. 104-107.
9. Blumberg, M. S. The developmental context of thermal homeostasis. *The Handbook of Behavioral Neurobiology, Volume 13, Developmental Psychobiology, Developmental Neurobiology and Behavioral Ecology: Mechanisms and Early Principles*, edited by E. M. Blass. New York: Plenum Press, 2001, pp. 199-228.
10. Blumberg, M. S., & Alberts, J. R. Incidental emissions, fortuitous effects, and the origins of communication. *Perspectives in Ethology, Volume 12*, edited by D. H. Owings, M. D. Beecher, and N. S. Thompson. New York, Plenum Press, 1997, pp. 225-249.

## BOOKS

1. Blumberg, M. S., Freeman, J. H., and Robinson, S. R. (eds.) ***The Oxford Handbook of Developmental Behavioral Neuroscience***. New York: Oxford University Press, 2010.  
Reviewed in *Doody's Health Sciences*.
2. Blumberg, M. S. ***Freaks of Nature: What Anomalies Tell Us about Development and Evolution***. New York: Oxford University Press, 2009.  
Reviewed in *Science, Nature, Times Literary Supplement, The Scientist, Chronicle of Higher Education, Boldtype, New Scientist, Science News, io9, Discover, Daily Telegraph, Financial*

*Times*, *Neurotopia (blog)*, *Evolving Thoughts (blog)*, *The Guardian*, *Choice*, *Skeptical Inquirer*, *Doody's Health Sciences Review*, *Jewish Exponent (Philadelphia)*, *Journal of Clinical Investigation*, *Lab Times*.

Korean Translation: Alma, Inc.

3. Blumberg, M. S. ***Basic Instinct: The Genesis of Behavior***. New York: Thunder's Mouth Press (now Basic Books), 2005.

Reviewed in *Publisher's Weekly*, *Science News*, *Developmental Psychobiology*, *The Quarterly Review of Biology*, *Scientific American Mind*, *AAAS Science Books and Films*, *Journal of Behavioral Finance*.

Reprinting of Chapter 2, "Designer Thinking," in *Annual Editions, Physical Anthropology 07/08*, McGraw-Hill.

Japanese Translation: Hayakawa Publishing, Inc.

Korean Translation: Ludens Book

4. Blumberg, M. S. ***Body Heat: Temperature and Life on Earth***. Cambridge: Harvard University Press, 2002.

Reviewed in *Publisher's Weekly*, *The Los Angeles Times*, *Times Literary Supplement*, *The Sunday Telegraph*, *New Scientist*, *Natural History*, *Science News*, *American Scientist*, *American Scholar*, *Netsurfer Science*, *JAMA*, *Choice*, *2Think.org*, *Bulletin of the American Meteorological Society*, *Developmental Psychobiology*, *M2 Best Books*, *Northeastern Naturalist*, *The Physiologist*, *Canadian Literature*, *The Quarterly Review of Biology*, *Journal of Mammalogy*.

## PERIODICALS

Blumberg, M. S. The animal zealotry that destroyed our lab. *The Washington Post*, Sunday Outlook, July 17, 2005.

Blumberg, M. S. A few degrees of separation. *The Sunday Times* (London), May 26, 2002.

## BOOK REVIEWS

Blumberg, M. S. Review of "Temperature regulation in laboratory rodents," by C. J. Gordon. *Animal Behaviour*, 48: 996-997, 1994.

## GUEST EDITING

Dess, N. K. & Blumberg, M. S., co-editors with introduction of a special section entitled "Speaking up, speaking out: Views on advocating for our science." *International Journal of Comparative Psychology*, 20: 1-24, 2007.

## BLOGS

Blumberg, M. S. November 19, 2009, URL: [http://correspondents.theatlantic.com/david\\_shenk/2009/11/is\\_foxp2\\_really\\_a\\_speech\\_gene\\_a\\_neuroscientist\\_challenges\\_the\\_new\\_york\\_times.php](http://correspondents.theatlantic.com/david_shenk/2009/11/is_foxp2_really_a_speech_gene_a_neuroscientist_challenges_the_new_york_times.php)

Blumberg, M. S. August 8, 2009, URL: [http://correspondents.theatlantic.com/david\\_shenk/2009/08/a\\_brave\\_new\\_world\\_in\\_china.php](http://correspondents.theatlantic.com/david_shenk/2009/08/a_brave_new_world_in_china.php)

Blumberg, M. S. November, 25, 2008, URL: <http://blog.oup.com/2008/11/bridgeless-gaps/>

## GRANTS

### EXTERNAL

Consultant on grants at the University of Pennsylvania (2) and the University of North Carolina at Chapel Hill.

Revision in preparation, co-Principal Investigator (Janet Best, PI), NSF, Collaborative Research in Computational Neuroscience, entitled “Empirical and mathematical approaches to understanding sleep-wake processes across early development.”

Submitted, Principal Investigator, NIH Director’s Pioneer Award, entitled “Sleep-dependent movements in health and disease.” 2012-2017. Total direct costs over 5 years: \$2,500,000.

Principal Investigator, R21, (Co-Investigators: Joshua Weiner and Bernd Fritsch), National Institute of Nervous Diseases and Stroke, entitled “Sleep, proprioception, and forebrain activity in infant mutant mice.” 2012-2013. Total direct costs over 2 years: \$275,000.

Principal Investigator, RO1, National Institute of Child Health and Human Development, entitled “Behavioral state development in infants.” (MH50701). 2010-2015. Total direct costs over 5 years: \$1,037,500.

Principal Investigator, KO2, Independent Scientist Award, National Institute of Mental Health, entitled “Homeostasis and behavioral state organization in infants.” (MH66424). 2007-2012. Total direct costs over 5 years: \$537,500.

Principal Investigator, RO1, National Institute of Mental Health, entitled “Behavioral state development in infants.” (MH50701). 2004-2009. (No-cost extension through 2010) Total direct costs over 5 years: \$900,000.

Principal Investigator, KO2, Independent Scientist Award, National Institute of Mental Health, entitled “Homeostasis and behavioral state organization in infants.” (MH66424). 2002-2007. Total direct costs over 5 years: \$513,852.

Principal Investigator, RO1, National Institute of Mental Health, entitled “Endothermy and behavioral thermoregulation in infants” (MH50701). 2000-2004. Total direct costs over 4 years: \$600,000.

Principal Investigator, RO1, National Institute of Child Health and Human Development, entitled “Cardiovascular concomitants of ultrasonic vocalizations” (HD38708). 2000-2003. No-cost extension 2004. Total direct costs over 3 years: \$405,000. Minority supplement, 2001-2003. Total direct costs over two years: \$27,928.

Principal Investigator, R29, FIRST Award, National Institute of Mental Health, entitled “Development of autonomic and behavioral thermoregulation” (MH50701). 1994-1999. Total direct costs over 5 years: \$349,924. Minority supplement, 1997-1999. Total direct costs over two years: \$36,187.

Co-Investigator with Dr. Jeffrey Alberts (PI), RO1, National Institute of Child Health and Human Development, entitled “Thermal imaging of perinatal behavior and physiology,” 1991-1994. Total direct costs over 3 years: \$133,956.

### INTERNAL

Iowa Center for Research by Undergraduates (ICRU) Summer Research Fellows Program, \$2500 stipend to support Cassandra Coleman, summer, 2007.

Faculty Scholar Award, 1999-2002, includes a 50% reduction in teaching and service for three consecutive years, as well as modest (\$2,000-\$4,500) support for research from the Office of the

Provost.

Old Gold Summer Fellowship, University of Iowa, Summer, 1993.

## **INVITED LECTURES, COLLOQUIA, AND CONFERENCE PRESENTATIONS**

### **INVITED LECTURES, COLLOQUIA, SYMPOSIA**

Symposium speaker, "Motor activity during sleep in infants activates cortical and hippocampal circuits: Relations to sensorimotor." In symposium entitled "Early cortical activity patterns in rodents and humans: From basics to clinic," 8<sup>th</sup> FENS Forum of Neuroscience, Barcelona, Spain, July 14-18, 2012.

Invited speaker, International Conference on Infant Studies, Minneapolis, Minnesota, June, 2012.

Keynote speaker for Reasonfest, "Freaks of nature and intelligent design." University of Kansas, Lawrence, Kansas, February 11, 2012.

Invited colloquium, "Beyond dreams: How twitches during active sleep contribute to sensorimotor development." Department of Cell and Systems Biology, University of Toronto, Toronto, Canada, February 3, 2012.

Discussant, "Legacies and systems." In symposium entitled "Developmental pathways of species-typical behavior." International Society for Developmental Psychobiology, Washington, D.C., November, 2011.

Invited speaker, "A twitch in time." Cognitive Development Society Pre-Conference Event entitled "Creating development: Integrating processes over multiple timescales." Philadelphia, Pennsylvania, October, 2011.

Invited participant, "The ontogeny of homologous behaviors: Lessons from developmental anomalies." NSF-sponsored workshop on "Exploring the Concept of Homology in Developmental Psychology." Dalhousie University, Halifax, Nova Scotia, August, 2011.

Keynote speaker for Brain Awareness Week, "Beyond dreams: Do sleep-related movements contribute to brain development?" Neuroscience Program, Tulane University, New Orleans, Louisiana, March 17, 2011.

Keynote speaker for Darwin Week, "Developing creations and creating development: Why monsters matter." University of Northern Iowa, Cedar Falls, Iowa, February 9, 2011.

Invited colloquium, "Beyond dreams: Do sleep-related movements contribute to brain development?" Department of Physics, University of Iowa, February 7, 2011.

Invited colloquium, "Beyond dreams: Do sleep-related movements contribute to brain development?" Neuroscience Program, University of Maryland – College Park, November 5, 2010.

Invited colloquium, "Beyond dreams: Do sleep-related movements contribute to brain development?" Neuroscience Seminar, University of Iowa, October 5, 2010.

Invited colloquium, "The form and function of infant sleep: From muscle to neocortex to developmental plasticity." Department of Biology, University of Iowa, September 24, 2010.

Invited participant, Opportunities at the Interface of Physics and Biology Symposium, Chicago, Illinois, July 27-29, 2010.

Invited speaker, "The form and function of infant sleep: From muscle to neocortex to developmental plasticity." Workshop entitled "Emerging locomotor skills, emotion regulation, and the tasks of the sleeping infant." University of Haifa, May 3-5, 2010.

Keynote speaker, "Developing creations and creating development: Why monsters matter." Annual meeting of the Iowa Academy of Science, Graceland University, Lamoni, Iowa, April 16, 2010.

Invited colloquium, "Sleep and the development of body, brain, and behavior." The Center for Psychiatric Neuroscience, University of Mississippi Medical Center, Jackson, Mississippi, March 12, 2010.

Invited speaker, "Developing creations and creating development: Why monsters matter." Mütter Museum at the College of Physicians of Philadelphia, Philadelphia, Pennsylvania, September 11, 2009.

Invited colloquium, "Sleep and the development of body, brain, and behavior." Center for Neurobiology and Behavior, University of Pennsylvania, September 11, 2009.

Invited speaker, "Sleep and the development of body, brain, and behavior." Distinguished Speakers in Behavioral and Brain Sciences Seminar Series, Department of Psychology, Cornell University, Ithaca, NY, September 3-4, 2009.

Invited speaker, "Spontaneous motor activity during active sleep modulates neocortical and hippocampal events and oscillations in newborn rats." Spring Hippocampal Research Conference, Verona, Italy, June 14-19, 2009.

Invited participant, ANR-NSF Meeting on Cognitive, Behavioural and Social Complexity Cognitive Sciences. Reims, France, April 27-28, 2009.

Invited discussant, "Are animals sentient beings?" Obermann Center Dinner Conversations, University of Iowa, April 16, 2009.

Invited Darwin Day address, "Developing creations and creating development: Why monsters matter." University of Iowa, February 13, 2009.

Invited colloquium, "Sleep and the development of body, brain, and behavior." Department of Psychology, Ohio State University, January, 15, 2009.

Presidential address, "Developing creations and creating development: Toward a developmental psychobiology of 'monsters'" International Society for Developmental Psychobiology, Washington, DC, November, 2008.

Invited speaker, "Developing creations and creating development," for symposium entitled "What is the nature of creativity," Kyoto University, Kyoto, Japan, October, 2008.

Invited panelist for colloquium entitled "Writing science at the science university," University of Iowa, October 8, 2008.

Invited speaker, "Sleep and the development of body, brain, and behavior," for ICDLS workshop entitled "Neural plasticity across multiple time scales," University of Iowa, October, 2008.

Invited participant and speaker, Neurobiological Basis of Circadian Rhythms Interaction with Complex Behaviors Workshop, Sponsored by NIMH, Bethesda, Maryland, July 22-23, 2008. Talk entitled "Epigenesis of ultradian and circadian sleep-wake rhythms."

Invited keynote speaker. "Nativism, evolutionary psychology, and creationism," for symposium entitled "Reconciling nature and nurture in the study of behavior." Indiana University, Bloomington, Indiana, March 23-25, 2007.

Invited colloquium, "The form and function of infant sleep: From muscle to neocortex." Mayo Clinic College of Medicine, Rochester, Minnesota, December 5, 2006.

Invited colloquium, "The form and function of infant sleep: From muscle to neocortex." Department of Biological Sciences, The University of Iowa, Iowa City, Iowa, December 1, 2006.

Invited participant, Consensus meeting on the development of neocortical rhythms, University of Helsinki, Helsinki, Finland, November 10-11, 2006.

Invited colloquium, "Tracking the developmental dynamics of sleep and wakefulness." Workshop on New Approaches to Modeling Sleep/Wake Dynamics and Cognitive Performance, Mathematical Biosciences Institute, Ohio State University, Columbus, Ohio, October 26-27, 2006.

Invited colloquium, "The form and function of infant sleep: From muscle to neocortex." Medical College of Wisconsin, Milwaukee, Wisconsin, March 30, 2006.

Invited colloquium, "The form and function of infant sleep: From muscle to neocortex." New York University, New York, NY, December 14, 2005.

Invited colloquium, "The ontogeny of mammalian sleep: From muscle to neocortex." University of Massachusetts, Amherst, MA, December 6, 2005.

APA fellow presentation, "Unraveling the mysteries of infant sleep." Annual Conference of the American Psychological Association, Washington, DC, August, 2005.

Invited colloquium, "Unraveling the mysteries of infant sleep." Department of Neurosurgery, University of Iowa Hospitals and Clinics, May 27, 2005.

Invited colloquium, "Unraveling the mysteries of infant sleep." Department of Psychology and the Center for the Integrative Study of Animal Behavior, Indiana University, February 25, 2005.

Departmental colloquium, "Unraveling the mysteries of infant sleep." Department of Psychology, The University of Iowa, Iowa City, Iowa, Feb. 23, 2005.

Invited colloquium, "In search of the elemental sleep circuit." Department of Psychology, University of Tennessee, October 13, 2005.

Invited participant, Pediatric Epilepsy Workshop, Sponsored by NINDS, Bethesda, Maryland, May 13-14, 2004.

Invited colloquium, "In search of the elemental sleep circuit." Neuroscience Program, Albert Einstein College of Medicine, Bronx, New York, April 7, 2004.

Departmental colloquium, "Do infants really sleep? And do they really need it?" Department of Psychology, The University of Iowa, Iowa City, Iowa, Feb. 22, 2004.

Departmental colloquium, "What can infant rats teach us about sleep, cataplexy, orexin, and the hippocampus?" Department of Psychology, The University of Iowa, Iowa City, Iowa, March 5, 2003.

Invited colloquium, "Dissecting the neural substrates of sleep in infant rats." Neuroscience Program, Michigan State University, February 13, 2003.

Invited colloquium, "The pup who came in from the cold: Explorations in physiological ecology." Ecology, Evolutionary Biology, and Behavior Program, Michigan State University, February 12, 2003.

Invited colloquium, "Do infant rats cry? And why should we care?" Department of Psychology, University of California at Davis, December 4, 2001.

Invited colloquium, "Do infant rats cry? And why should we care?" Saturday Scholars Program, College of Liberal Arts, The University of Iowa, October 6, 2001.

Invited colloquium, "Do infant rats cry? Recent developments in an ongoing controversy." Midwestern Psychological Association, May, 2001.

Departmental colloquium, "Leading with your chin: Dissecting the components of behavioral thermoregulation in infant rats and hamsters." Department of Psychology, The University of Iowa, Iowa City, Iowa, October 11, 2000.

Invited colloquium, "Cardiovascular causes and consequences of ultrasonic 'crying' in infant rats." Department of Biological Sciences, The University of Iowa, Iowa City, Iowa, March 31, 2000.

Departmental colloquium, "Cardiovascular causes and consequences of ultrasonic 'crying' in infant rats." Department of Psychology, The University of Iowa, Iowa City, Iowa, September 8, 1999.

Departmental colloquium, "What distinguishes a good department from a great department? An open discussion." Department of Psychology, The University of Iowa, Iowa City, Iowa, May 5, 1999.

Departmental colloquium with Gregg Oden, "Why is the concept of set point so unsettling?" Department of Psychology, The University of Iowa, Iowa City, Iowa, February 3, 1999.

Award address, "The developmental context of sleep and homeostasis," American Psychological Association, San Francisco, California, August, 1998.

Invited symposium discussant, "Emergence of motor organization in the fetus and neonate: Congruent themes in human and animal models," 11<sup>th</sup> Biennial International Conference on Infant Studies (ICIS), Atlanta, Georgia, April, 1998.

Invited speaker for the Brain Awareness Week Symposium, "To sleep, perchance to twitch," The University of Iowa, March 26, 1998.

Invited workshop, "Developmental approaches to the study of REM sleep," Department of Psychology, The University of Chicago, January 16, 1998.

Invited colloquium, "The developmental context of homeostasis," Department of Psychology, The University of Chicago, January 15, 1998.

Invited colloquium at the Center for Developmental Psychobiology, "The squeaky wheel gets the grease, and other deep thoughts on animal communication," State University of New York at Binghamton, February, 1993.

Invited colloquium, Department of Psychology, The University of Iowa, 1991.

Invited colloquium, Department of Psychology, Duke University, 1991.

Invited participant, Animal Models of SIDS Workshop, sponsored by the National Institute of Child Health and Human Development, Washington, D.C., October, 1990.

## **CONFERENCE PRESENTATIONS: TALKS**

Gall, A. J., Todd, W. D., & Blumberg, M. S. Developmental influences of the suprachiasmatic nucleus on circadian and ultradian rhythms of sleep and wakefulness in infant rats. Society for Neuroscience, Washington, D.C., November, 2011.

Todd, W. D., Gall, A. J., & Blumberg, M. S. The developmental emergence of circadian preference is predicted by distinct patterns of retinohypothalamic innervation in nocturnal Norway rats and diurnal Nile grass rats. International Society for Developmental Psychobiology, Washington, D.C., November, 2011.

Blumberg, M. S. Beyond dreams: Do sleep-related movements contribute to brain development? Winter Animal Behavior Conference, Steamboat Springs, Colorado, January, 2011.

Gall, A. J. & Blumberg, M. S. Influences of the suprachiasmatic nucleus on ultradian and circadian rhythms of sleep and wakefulness in infant rats. International Society for Developmental Psychobiology, San Diego, California, November, 2010.

Blumberg, M. S. Beyond dreams: Do sleep-related movements contribute to brain development? International Society for Developmental Psychobiology, San Diego, California, November, 2010.

- Todd, W., & Blumberg, M. S. Brainstem and hypothalamic regulation of sleep pressure and rebound in newborn rats. International Society for Developmental Psychobiology, Chicago, Illinois, October, 2009.
- Marcano-Reik, A. J., & Blumberg, M. S. Developmental plasticity after acute and chronic transection of the corpus callosum: Evidence for recovery of function and GABAergic inhibition during the early postnatal period. International Society for Developmental Psychobiology, Chicago, Illinois, October, 2009.
- Blumberg, M. S. Freaks and sleep. Winter Animal Behavior Conference, Steamboat Springs, Colorado, January, 2009.
- Gall, A. J., Todd, W. D., Ray, B., Coleman, C. M., & Blumberg, M. S. The development of circadian sleep-wake rhythms in intact and enucleated Norway rats. International Society for Developmental Psychobiology, Washington, DC, November, 2008.
- Mohns, E. J., & Blumberg, M. S. Synchronous bursts of activity in the developing hippocampus: Modulation by active sleep, and association with emerging gamma and theta rhythms. International Society for Developmental Psychobiology, Washington, DC, November, 2008.
- Blumberg, M. S. Carpe diem: The epigenesis of diurnality. Winter Animal Behavior Conference, Steamboat Springs, Colorado, January, 2008.
- Grobe, J. L., Grobe, C. L., Gall, A. J., Sakai, K., Rahmouni, K., Blumberg, M. S., Johnson, A. K., & Sigmund, C. D. Increased metabolic rate in transgenic mice overexpressing the central Renin-Angiotensin System. Annual High Blood Pressure Research Conference, American Heart Association, Tucson, Arizona, September, 2007.
- Seelke, A. M. H., Marcano-Reik, A. J., & Blumberg, M. S. The infant rat neocortex exhibits multiple forms of state-dependent activity before the emergence of delta waves. International Society for Developmental Psychobiology, San Diego, October, 2007.
- Seelke, A. M. H., & Blumberg, M. S. Three novel waveforms exhibit state-dependent activity before the developmental emergence of delta waves in the infant rat cortex. Associated Professional Sleep Societies, Minneapolis, Minnesota, June, 2007.
- Blumberg, M. S. Nativism and creationism. Society for Research in Child Development, Boston, Massachusetts, April 1, 2007.
- Blumberg, M. S., Johnson, E. D., Shaw, C., & Coleman, C. M. Narcolepsy as the reversion to an infantile state of sleep-wake organization. International Society for Developmental Psychobiology, Atlanta, October, 2006.
- Seelke, A. M. H., & Blumberg, M. S. Development of state-dependent neocortical activity in infant rats. Associated Professional Sleep Societies, Salt Lake City, Utah, June, 2006.
- Blumberg, M. S. Nativism, evolutionary psychology, and creationism. Midwestern Psychological Association, Chicago, Illinois, May, 2006.
- Blumberg, M. S. Sleeping like a baby. Winter Animal Behavior Conference, Steamboat Springs, Colorado, January, 2006.
- Blumberg, M. S. Progress in the study of infant sleep, its development, and its neural substrates. International Society for Developmental Psychobiology, Washington, DC, November, 2005.
- Seelke, A. M. H., Karlsson, K. Æ., Gall, A. J., & Blumberg, M. S. The ontogeny of sleep-related phasic activity in the infant rats. International Society for Developmental Psychobiology, Washington, DC, November, 2005.
- Blumberg, M. S. Infant sleep: Problems and mechanisms. Winter Conference on Current Issues in Developmental Psychobiology, Panama, January, 2005.

- Karlsson, K. Æ., Kreider, J. C., & Blumberg, M. S. Hypothalamic contribution to sleep-wake cycle development. Associated Professional Sleep Societies, Philadelphia, June, 2004.
- Blumberg, M. S., Middlemis-Brown, J. E., and Johnson, E. D. Infant rats deprived of sleep exhibit increased sleep pressure and homeostasis. Associated Professional Sleep Societies, Philadelphia, June, 2004.
- Blumberg, M. S., Stough, S. D., Middlemis-Brown, J. E., and Johnson, E. D. Cardiopulmonary and thermal factors influencing ultrasonic vocalizations in infant rats. International Society for Developmental Psychobiology, New Orleans, November, 2003.
- Karlsson, K. Æ., Kreider, J. C., & Blumberg, M. S. Hypothalamic contribution to sleep-wake cycle development. International Society for Developmental Psychobiology, New Orleans, November, 2003.
- Blumberg, M. S. Dissecting the neural substrates of sleep in infant rats. Winter Animal Behavior Conference, Jackson Hole, Wyoming, January, 2003.
- Blumberg, M. S. & Bjelica, M. Venous return increases during ultrasonic vocalizations in adult rats: Implications for infant rat ultrasound production. International Society for Developmental Psychobiology, Orlando, October, 2002.
- Sokoloff, G., & Blumberg, M. S. The contributions of endothermy to huddling in altricial infants. International Society for Developmental Psychobiology, San Diego, November, 2001.
- Karlsson, K. Æ., & Blumberg, M. S. Myoclonic twitching and nuchal muscle EMG in infant rats: Implications for the development of REM sleep. International Society for Developmental Psychobiology, San Diego, November, 2001.
- Blumberg, M. S. The epigenesis of behavioral thermoregulation in a lizard. Winter Animal Behavior Conference, Jackson Hole, Wyoming, January, 2001.
- Blumberg, M. S., Sokoloff, G., Boline, E. A., & Streeper, N. M. Behavioral thermoregulation in infant rats and hamsters. International Society for Developmental Psychobiology, New Orleans, November, 2000.
- Sokoloff, G., Blumberg, M. S., Gorby, T. A., Lewis, S. J., & Kirby, R. F. Sodium nitroprusside decreases blood pressure and evokes ultrasound production in infant rats. International Society for Developmental Psychobiology, New Orleans, November, 2000.
- Blumberg, M. S. For crying out loud, blood is thicker than water. Winter Animal Behavior Conference, Jackson Hole, Wyoming, January, 2000.
- Robinson, S. R., Blumberg, M. S., Lane, M. S., & Kreber, L. A. Spontaneous motor activity of fetal and neonatal rats is organized into discrete multilimb bouts. International Society for Developmental Psychobiology, Coral Gables, Florida, October, 1999.
- Blumberg, M. S., Sokoloff, G., Kirby, R. F., & Kent, K. J. Cardiovascular causes and consequences of ultrasound production in infant rats. International Society for Developmental Psychobiology, Coral Gables, Florida, October, 1999.
- Sokoloff, G., Blumberg, M. S., Kreber, L. A., & Kent, K. J. Does clonidine induce ultrasound production in infant rats via its effects on the cardiovascular system? International Society for Developmental Psychobiology, Coral Gables, Florida, October, 1999.
- Sokoloff, G., & Blumberg, M. S. Comparative aspects of huddling behavior in infant rats and hamsters: Contributions of endogenous heat production. International Society for Developmental Psychobiology, Orleans, France, July, 1998.
- Blumberg, M. S., & Sokoloff, G. Cardiovascular changes accompanying cold exposure and ultrasound production in infant rats. International Society for Developmental Psychobiology, Orleans, France, July, 1998.

Blumberg, M. S. The P word. Winter Animal Behavior Conference, Jackson Hole, Wyoming, January, 1998.

Kirby, R. F., Perdomo, E., Deaver, K., Sokoloff, G., & Blumberg, M. S. Diminished BAT thermogenesis in infant SHR compared to WKY rats. International Society for Developmental Psychobiology, New Orleans, October, 1997.

Blumberg, M. S., Sokoloff, G., & Kirby, R. F. BAT thermogenesis contributes directly to the maintenance of cardiac rate in infant rats and hamsters during cold exposure. International Society for Developmental Psychobiology, New Orleans, October, 1997.

Sokoloff, G., & Blumberg, M. S. Protection of myoclonic twitching by brown adipose tissue in cold-exposed infant rats and hamsters. International Society for Developmental Psychobiology, New Orleans, October, 1997.

Blumberg, M. S. Matters of the heart. Winter Animal Behavior Conference, Jackson Hole, Wyoming, January, 1997.

Blumberg, M. S. The union of the state. Winter Conference on Current Issues in Developmental Psychobiology, Anguilla, British West Indies, January, 1997.

Kirby, R. F., Sokoloff, G., & Blumberg, M. S. Thermoregulatory responses to cold challenge in infant spontaneously hypertensive and Wistar-Kyoto rats. International Society for Developmental Psychobiology, Washington, D.C., November, 1996.

Sokoloff, G., & Blumberg, M. S., Mendella, P., & Brown, R. E. Clonidine- and separation-induced ultrasound production in infant rats: Cardiovascular interactions. International Society for Developmental Psychobiology, Washington, D.C., November, 1996.

Blumberg, M. S., G. Sokoloff, & Kirby, R. F. Infant rat ultrasound as by-product: Cardiovascular considerations. International Society for Developmental Psychobiology, Washington, D.C., November, 1996.

Blumberg, M. S. Beyond homeostasis. Winter Animal Behavior Conference, Jackson Hole, Wyoming, January, 1996.

Blumberg, M. S. Does brown fat thermogenesis protect sleep-related behaviors during cold exposure in neonatal rats? International Society for Developmental Psychobiology, San Diego, California, November, 1995.

Blumberg, M. S. A sleeping tail. Winter Animal Behavior Conference, Jackson Hole, Wyoming, January, 1995.

Blumberg, M. S., & Lucas, D. E. A developmental approach to the study of REM sleep. International Society for Developmental Psychobiology, Islamorada, Florida, November, 1994.

Blumberg, M. S. To sleep, perchance to twitch. Winter Animal Behavior Conference, Jackson Hole, Wyoming, January, 1994.

Blumberg, M. S. Physiological, biomechanical, and evolutionary issues in rodent ultrasonic communication. Winter Animal Behavior Conference, Jackson Hole, Wyoming, January, 1993.

Blumberg, M. S., Efimova, I. V., & Alberts, J. R. Thermal imaging of brown fat activation during pup transfer to a warm environment. International Society for Developmental Psychobiology, Newport Beach, California, October, 1992.

Blumberg, M. S., & Alberts, J. R. Reinterpretation of the physiological and communicatory significance of infant rat ultrasonic vocalizations. Symposium on Perinatal Behavior and Physiology. Midwestern Psychological Association, Chicago, Illinois, April, 1992.

Blumberg, M. S., & Alberts, J. R. Ultrasonic vocalizations by rat pups: Isolation, huddling, and air temperature. International Society for Developmental Psychobiology, New Orleans, Louisiana, November, 1991.

Alberts, J. R., & Blumberg, M. S. Ultrasonic vocalizations as acoustic by-products of laryngeal braking: An overview. International Society for Developmental Psychobiology, New Orleans, Louisiana, November, 1991.

Blumberg, M. S., & Alberts, J. R. Is there a physiological connection between the 40 kHz vocalization of rat pups and the 22 kHz vocalization of adult rats? International Society for Developmental Psychobiology, Cambridge, England, July, 1990.

Blumberg, M. S., & Alberts, J. R. Ultrasonic vocalizations by rat pups in the cold are an acoustic by-product of increased oxygen consumption. International Society for Developmental Psychobiology, San Francisco, California, October, 1989.

Blumberg, M. S., & Moltz, H. Brain temperature, sexual behavior and the 22 kHz vocalization of the male rat. Conference on Reproductive Behavior, Tlaxcala, Mexico, June, 1987.

Blumberg, M. S., & Moltz, H. The 22 kHz vocalization of the male rat: evidence for a role in thermoregulation. Animal Behavior Society, Williamstown, Massachusetts, June, 1987.

#### **CONFERENCE PRESENTATIONS: POSTERS**

Todd, W. D., Gall, A. J., & Blumberg, M. S. Distinct retinohypothalamic innervation patterns predict the developmental emergence of species-typical circadian preference. Society for Neuroscience, Washington, D.C., November, 2011.

Tiriac, A., Fanning, A., & Blumberg, M. S. State-dependent thalamic activity in infant rats. Society for Neuroscience, Washington, D.C., November, 2011.

Tiriac, A., Fanning, A., & Blumberg, M. S. State-dependent thalamic activity in infant rats. International Society for Developmental Psychobiology, Washington, D.C., November, 2011. (Co-winner, Best Poster Award)

Todd, W. D., Gall, A. J., & Blumberg, M. S. Developmental comparative exploration of the neural mechanisms underlying phase preference in diurnal Nile grass rats and nocturnal Norway rats. International Society for Developmental Psychobiology, San Diego, California, November, 2010. (Co-winner, Best Poster Award)

Marcano-Reik, A. J., Prasad, T., Weiner, J. A., & Blumberg, M. S. An abrupt development shift in callosal modulation of sleep-related spindle bursts coincides with the emergence of excitatory-inhibitory balance and a reduction of somatosensory cortical plasticity. International Society for Developmental Psychobiology, San Diego, California, November, 2010.

Gall, A. J. & Blumberg, M. S. Neural and non-neural suprachiasmatic influences on sleep and wakefulness in infant rats. Associated Professional Sleep Societies, San Antonio, Texas, June, 2010.

Todd, W. D., Gall, A. J., & Blumberg, M. S. The development of day-night differences in sleep-wake behavior and Fos-immunoreactivity in diurnal Nile grass rats and nocturnal Norway rats. Associated Professional Sleep Societies, San Antonio, Texas, June, 2010.

Gall, A. J., Joshi, B., Best, J., Florang, V. R., Doorn, J. A., & Blumberg, M. S. Developmental transition from exponential to power-law wake behavior depends upon the functional integrity of the locus coeruleus. International Society for Developmental Psychobiology, Chicago, IL, 2009. (Co-winner, Best Poster Award)

- McMurray, M. S., Zeskind, P. S., Blumberg, M. S., Meiners, S., Cox, E. T., Williams, S. K., Johns, J. M. Gestational cocaine affects rat pup brown adipose tissue thermogenesis, ultrasonic vocalizations, and urine characteristics. Society for Neuroscience, Chicago, IL, October, 2009.
- Marcano-Reik, A. J., & Blumberg, M. S. The corpus callosum modulates spindle burst activity within homotopic regions of somatosensory cortex in newborn rats. Society for Neuroscience, Washington, DC, November, 2008.
- Mohns, E. J., & Blumberg, M. S. Synchronous bursts of activity in the developing hippocampus: Modulation by active sleep, and association with emerging gamma and theta rhythms. Society for Neuroscience, Washington, DC, November, 2008.
- Joshi, B. S., Best, J. A., Terman, D. H., Blumberg, M. S. (2007). Developmental dynamics of sleep-wake cycles: a mathematical model. Society for Neuroscience, San Diego, November, 2007.
- Seelke, A. M. H., Marcano-Reik, A. J., & Blumberg, M. S. The infant rat neocortex exhibits multiple forms of state-dependent activity before the emergence of delta waves. Society for Neuroscience, San Diego, November, 2007.
- Todd, W. D., & Blumberg, M. S. Sleep regulation in neonatal rats: A reexamination. International Society for Developmental Psychobiology, San Diego, October, 2007.
- Marcano-Reik, A. J., Todd, W. D., Seelke, A. M. H., & Blumberg, M. S. Development, state dependence, and somatotopic organization of neocortical activity during the early postnatal period in rats. International Society for Developmental Psychobiology, San Diego, October, 2007.
- Gall, A. J., Ray, B., Todd, W. D., Coleman, C. M., & Blumberg, M. S. Circadian rhythmicity in normal and enucleated infant rats: Implications for the development of nocturnality and diurnality. 72nd Cold Spring Harbor Laboratories Symposium: Clocks & Rhythms, Cold Spring Harbor, New York, May 30-June 4, 2007.
- Mohns, E., Karlsson, K. Æ., & Blumberg, M. S. Transient co-occurrence of ripple- and gamma-frequency oscillations during a period of hyperexcitability in the neonatal rat hippocampus *in vivo*. International Society for Developmental Psychobiology, Atlanta, October, 2006.
- Seelke, A. M. H., & Blumberg, M. S. State-dependent neocortical activity is present before the onset of delta waves in infant rats. International Society for Developmental Psychobiology, Atlanta, October, 2006.
- Gall, A. J., Ray, B., & Blumberg, M. S. Circadian variations in sleep and wakefulness in developing rats. Society for Neuroscience, Atlanta, Georgia, October, 2006. International Society for Developmental Psychobiology, Atlanta, October, 2006.
- Gall, A. J., Ray, B., & Blumberg, M. S. Circadian variations in sleep and wakefulness in developing rats. Society for Neuroscience, Atlanta, Georgia, October, 2006.
- Mohns, E., Karlsson, K. Æ., & Blumberg, M. S. Development of ripple and gamma frequency oscillations in the neonatal rat hippocampus *in vivo*. Society for Neuroscience, Atlanta, Georgia, October, 2006.
- Viana di Prisco, G., Mohns, E., & Blumberg, M. S. CRF can evoke seizures in infant rats through its effects on the brainstem. Society for Neuroscience, Atlanta, Georgia, October, 2006.
- Ray, B., Gall, A. J., & Blumberg, M. S. Circadian variations in sleep and wakefulness in developing rats. Associated Professional Sleep Societies, Salt Lake City, Utah, June, 2006.
- Mohns, E. J., Karlsson, K. Æ., & Blumberg, M. S. Effects of modafinil on developing sleep patterns in infant rats. International Society for Developmental Psychobiology, Washington, DC, November, 2005.

Seelke, A. M. H., Freeman, J. H., Jr., & Blumberg, M. S. State-dependent thalamic activity in infant rats and its developmental relations with slow-wave neocortical activity. Society for Neuroscience, Washington, D.C, November, 2005.

Gall, A. J., Poremba, A., & Blumberg, M. S. Contributions of the dorsolateral pontine tegmentum to the regulation of sleep and wakefulness in early infancy. Society for Neuroscience, Washington, D.C, November, 2005.

Vianna Di Prisco, G., & Blumberg, M. S. Effects of serotonin depletion on sleep-related motor activity in infant rats. Society for Neuroscience, Washington, D.C, November, 2005.

Mohns, E. J., Karlsson, K. Æ., & Blumberg, M. S. Effects of modafinil on developing sleep patterns in infant rats. Society for Neuroscience, Washington, D.C, November, 2005.

Karlsson, K. Æ., Mohns, E. J., Vianna di Prisco, G., & Blumberg, M. S. Are hippocampal sharp waves and startles causally linked? Society for Neuroscience, Washington, D.C, November, 2005.

Blumberg, M. S., Karlsson, K. Æ., Seelke, A. M. H., Gall, A. J., & Mohns, E. J. The neural substrates of infant sleep. Associated Professional Sleep Societies, Denver, June, 2005.

Seelke, A. M. H., Karlsson, K. Æ., & Blumberg, M. S. The ontogeny of spontaneous sleep-related phasic activity in the rat. Associated Professional Sleep Societies, Denver, June, 2005.

Mohns, E. J., Karlsson, K. Æ., & Blumberg, M. S. The ventrolateral preoptic area and basal forebrain play opposing roles in the descending modulation of sleep-wake cyclicity in infant rats. Associated Professional Sleep Societies, Denver, June, 2005.

Karlsson, K. Æ., & Blumberg, M. S. Medullary control of REM sleep atonia in infant rats. Society for Neuroscience, San Diego, November, 2004.

Seelke, A. M. H., & Blumberg, M. S. Ontogeny of sleep-related phasic activity during early infancy. Society for Neuroscience, San Diego, November, 2004.

Mohns, E. J., Karlsson, K. Æ., & Blumberg, M. S. Hypothalamic modulation of sleep-wake cyclicity in infant rats. Society for Neuroscience, San Diego, November, 2004.

Blumberg, M. S., Middlemis-Brown, J. E., & Johnson, E. D. Sleep homeostasis in infant rats. Society for Neuroscience, San Diego, November, 2004.

Seelke, A. M. H., & Blumberg, M. S. Sensory threshold increases during active sleep in infant rats. Associated Professional Sleep Societies, Philadelphia, June, 2004.

Seelke, A. M. H., & Blumberg, M. S. Double dissociation between sniffing and arousal in infant rats. International Society for Developmental Psychobiology, New Orleans, November, 2003.

Karlsson, K. Æ., & Blumberg, M. S. Effects of brain temperature on spontaneous hippocampal activity in anesthetized infant rats. Society for Neuroscience, New Orleans, November, 2003.

Blumberg, M. S., Karlsson, K. Æ., & Kreider, J. C. Hypothalamic contribution to sleep cycle development. Society for Neuroscience, New Orleans, November, 2003.

Seelke, A. M. H., & Blumberg, M. S. Double dissociation between sniffing and arousal in infant rats. Society for Neuroscience, New Orleans, November, 2003.

Karlsson, K. Æ., & Blumberg, M. S. Nuchal atonia and hippocampal theta characterize the sleep of rats as young as two days of age. Associated Professional Sleep Societies, Chicago, June, 2003.

Karlsson, K. Æ., & Blumberg, M. S. Active sleep or REM sleep? Let's call the whole thing off. Society for Neuroscience, Orlando, November, 2002.

Kreider, J. C., Blumberg, M. S., & Spencer, J. P. Selective electrolytic lesions in the mesopontine region disrupt active sleep in week-old rats. Society for Neuroscience, Orlando, November, 2002.

- Karlsson, K. Æ., & Blumberg, M. S. The ontogeny of the hippocampal theta rhythm and its relation with behavioral state. International Society for Developmental Psychobiology, Orlando, October, 2002.
- Kreider, J. C., & Blumberg, M. S. Selective electrolytic lesions in the mesopontine region disrupt active sleep in week-old rats. International Society for Developmental Psychobiology, Orlando, October, 2002.
- Johnson, E. D., & Blumberg, M. S. Orientation responses toward heat localized to the snout during bodily cooling in infant rats and hamsters. International Society for Developmental Psychobiology, San Diego, November, 2001.
- Streep, N. M., Sokoloff, G., & Blumberg, M. S. Effects of maternal contact on ultrasonic vocalizations in infant rats. International Society for Developmental Psychobiology, San Diego, November, 2001.
- Kreider, J. C., & Blumberg, M. S. Mesopontine distribution of c-fos immunoreactivity during active sleep in infant rats. Associated Professional Sleep Societies, Chicago, June, 2001.
- Kreider, J. C., & Blumberg, M. S. Mesopontine contributions to active 'twitch' sleep in infant rats. Society for Neuroscience, New Orleans, November, 2000.
- Sokoloff, G., Blumberg, M. S., Lewis, S. J., & Kirby, R. F. Ultrasonic vocalizations and the autonomic nervous system in infant rats. Society for Neuroscience, New Orleans, November, 2000.
- Lewis, S. J., Blumberg, M. S., & Sokoloff, G. Incubation temperature modulates posthatching thermoregulatory behavior in the Madagascar ground gecko. International Society for Developmental Psychobiology, New Orleans, November, 2000.
- Kreider, J. C., & Blumberg, M. S. Mesopontine c-fos immunoreactivity during active sleep in week-old rats. International Society for Developmental Psychobiology, New Orleans, November, 2000.
- Boline, E. A., Sokoloff, G., & Blumberg, M.S. Behavioral responses to thermal stimulation in infant rats and hamsters. International Society for Developmental Psychobiology, New Orleans, November, 2000.
- Lewis, S. J., Blumberg, M. S., & Sokoloff, G. Sodium nitroprusside-induced venodilation increases ultrasonic vocalization in infant rats. Experiment Biology, San Diego, California, April, 2000.
- Sokoloff, G., & Blumberg, M. S. An infrared thermographic study of the thermal advantage gained by huddling in infant rats: Contributions of endothermy and behavior. Experimental Biology, San Diego, California, April, 2000.
- Blumberg, M. S., Sokoloff, G., Kirby, R. F., & Kent, K. J. Increased venous return accompanying clonidine-induced vocalizations in young rats. Society for Neuroscience, Miami Beach, Florida, October, 1999.
- Sokoloff, G., Blumberg, M. S., & Kent, K. J. Do cold exposure and clonidine administration stimulate infant rat ultrasound production through similar effects on the cardiovascular system? Society for Neuroscience, Miami Beach, Florida, October, 1999.
- Kreider, J. C., & Blumberg, M. S. Effects of pontine and midbrain transections on myoclonic twitching in week-old rats. International Society for Developmental Psychobiology, Coral Gables, Florida, October, 1999.
- Kreider, J. C., & Blumberg, M. S. Geotaxis in 2-week-old Norway rats (*Rattus Norvegicus*): A reevaluation. International Society for Developmental Psychobiology, Orleans, France, July, 1998.
- Karlen, S. J., & Blumberg, M. S. Relations between cardiac rate and active sleep behaviors in developing rats. International Society for Developmental Psychobiology, Orleans, France, July, 1998.
- Kosinski, C. J., Sokoloff, G., & Blumberg, M. S. Sensory modulation of myoclonic twitching during active sleep in infant rats. International Society for Developmental Psychobiology, Washington, D.C., November, 1996.

Sokoloff, G., & Blumberg, M. S. Dynamics of thermogenesis in neonatal rats. International Society for Developmental Psychobiology, San Diego, California, November, 1995.

Blumberg, M. S., & Lucas, D. E. A developmental and component analysis of active sleep. Society for Neuroscience, San Diego, California, November, 1995.

Schalk, S. L., & Blumberg, M. S. Decerebration and BAT thermogenesis in neonatal rats. International Society for Developmental Psychobiology, Islamorada, Florida, November, 1994.

Blumberg, M. S. Effect of mid-thoracic spinal transection on the occurrence and coordination of "REM-related" muscular twitches in neonatal rats. International Society for Developmental Psychobiology, Alexandria, Virginia, November, 1993.

Alberts, J. R., Blumberg, M.S., & Ronca, A. E. Thermal imaging of brown fat activation in perinatal rats. International Society for Developmental Psychobiology, New Orleans, Louisiana, November, 1991.

Blumberg, M. S., Mennella, J. A., & Moltz, H. Rapid brain cooling following ejaculation in the male rat. Conference on Reproductive Behavior, Montreal, Canada, June, 1986.

### **SYMPOSIA ORGANIZED**

Sleep Development and Plasticity. Mark Blumberg (Chair), Robert Vertes, James Shaffery. Winter Conference on Current Issues in Developmental Psychobiology, Panama, January, 2005.

Conflict, Controversy, and Self-Discovery: Three Scientists Tell Their Stories. Mark Blumberg (Chair), Celia Moore, Jerry Rudy, and Douglas Wahlsten. International Society for Developmental Psychobiology, Orlando, October, 2002.

## TEACHING AT THE UNIVERSITY OF IOWA

## UNDERGRADUATE AND GRADUATE TEACHING

Semester, Year	Course	Students Enrolled	Selected Median ACE Summary Scores (Scale from 1 to 6); Analogous SPOT scores reported prior to Fall, 1998					
			This course is well planned and organized	I would recommend a course taught by this instructor to other students	Important points are clarified with good examples	Student questions are encouraged	Help is available outside class if I have questions	This instructor is effective in presenting materials in lecture/ discussion
Spring, 2012	31:338 Advanced Topics in Behavioral and Cognitive Neuroscience	12						
Spring, 2010	31:002 Biological Psychology	293	5.74	5.54	5.41	5.85	5.63	5.68
Spring, 2008	31:190 Psychology Seminar: Sleep	21	5.31	5.97	5.79	6.00	5.86	5.97
Fall, 2006	31:338 Advanced Topics in Behavioral and Cognitive Neuroscience	12						
Spring, 2006	31:234 Developmental Psychobiology	16						
Spring, 2005	31:012 Introduction to Brain and Behavior	240	5.59	5.53	5.50	5.90	5.32	5.62
Spring, 2004	31:190 Psychology Seminar	21	5.91	5.91	5.82	5.97	5.81	5.77
Spring, 2003	31:338 Advanced Topics in Behavioral and Cognitive Neuroscience	11						
Spring, 2002	31:012 Introduction to Brain and	240	5.68	5.59	5.54	5.85	5.45	5.70

	Behavior							
Fall, 2000	31:012 Introduction to Brain and Behavior	240	5.56	5.58	5.57	5.83	5.27	5.70
Fall, 1999	31:3 General Psychology	80	5.69	5.73	5.80	5.90	5.52	5.83
Spring, 1999	31:132 Biopsychology of Motivated Behaviors	50	5.80	5.79	5.80	5.97	5.35	5.77
Fall, 1998	31:3 General Psychology	80	5.87	5.80	5.84	5.93	5.48	5.87
Spring, 1998	31:132 Biopsychology of Motivated Behaviors	60	5.70	5.91	5.89		5.73	5.98
Fall, 1997	31:003 General Psychology	52	5.39	5.63	5.64		5.46	5.65
Spring, 1997	31:132 Biopsychology of Motivated Behaviors	50	5.65	5.84	5.77		5.57	5.94
Fall, 1996	31:003 General Psychology	52	5.53	5.61	5.79		5.55	5.82
Fall, 1995	31:132 Biopsychology of Motivated Behaviors	42	5.65	5.33	5.41		5.52	5.50
Spring, 1995	31:003 General Psychology	61	5.30	5.63	5.63		5.67	5.56
Spring, 1995	31:234 Developmental Psychobiology	11	5.64	5.82	6.00		5.73	6.00
Fall, 1994	31:132 Motivation	50	5.66	5.59	5.68		5.68	5.71
Spring, 1994	31:003 General Psychology	60	5.17	5.26	5.51		5.28	5.40
Fall, 1993	31:132 Motivation	64	5.16	5.51	5.42		5.62	5.47
Spring, 1993	31:003 General Psychology	48	5.42	5.55	5.58		5.24	5.45
Spring, 1993	31:234 Developmental Psychobiology	16	5.19	5.75	5.38		5.79	5.63
	31:132							

Fall, 1992	Motivation	61	5.02	5.51	5.32		5.65	5.51
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**GRADUATE TEACHING (PRE-2003)**

- Spring, 2011 31:242 Fundamentals of Learning and Behavior (1 lecture) (8)
- Fall, 2002 31:241 Proseminar in Behavioral and Cognitive Neuroscience (16)
- Fall, 2001 31:241 Proseminar in Behavioral and Cognitive Neuroscience (18)
- Fall, 2000 31:241 Proseminar in Behavioral and Cognitive Neuroscience (11)
- Fall, 1999 31:338 Advanced Topics in Behavioral and Cognitive Neuroscience (16)
- Fall, 1998 31:241 Behavioral and Cognitive Neuroscience I (Course coordinator) (12)
- Spring, 1998 31:242 Behavioral and Cognitive Neuroscience II (Course coordinator + 10 lectures) (6)
- Fall, 1997 31:241 Behavioral and Cognitive Neuroscience I (Course coordinator) (18)
- Spring, 1997 31:242 Behavioral and Cognitive Neuroscience II (7 lectures) (8)  
31/338 Advanced Topics in Behavioral and Cognitive Neuroscience (5)
- Fall, 1996 31:241 Behavioral and Cognitive Neuroscience I (3 lectures) (10)
- Spring, 1994 31:338 Advanced Topics in Neuroscience and Behavior (10)  
31:244 Behavioral Neuroscience (2 lectures) (7)
- Spring, 1993 31:244 Behavioral Neuroscience (2 lectures) (4)

**OTHER TEACHING**

- Summer, 2003 31:185 Research Practicum (Jonathan Mowers)

**STUDENTS SUPERVISED**

Degree Objective	Student Name	Years	Outcome
Ph.D. candidates	Brandt Uitermarkt	2011-	
	Alexandre Tiriac	2010-	
	William Todd	2006-	Ph.D. expected May, 2012
	Andrew Gall**	2004-2011	Ph.D., July, 2011
	Ethan Mohns <sup>#</sup>	2003-2009	Ph.D., August, 2009
	Adele Seelke <sup>†</sup>	2001-2007	Ph.D., December, 2007
	Karlsson, Karl <sup>†</sup>	2000-2005	Ph.D., May, 2005
	Kreider, Joy	1996-2003	Ph.D., August, 2003
	Sokoloff, Greta	1996-2001	Ph.D., May, 2001
Master's candidates	Lewis, Sean	1999-2001	M.A. degree granted
	Sokoloff, Greta	1996-2001	M.A. degree granted

Undergraduates	See complete list below		
Honors students	Jessica E. Middlemis-Brown	2005	B.S. (Grad. School, Univ. of Michigan)
	Eric D. Johnson	2003	B.S.
	Elizabeth A. Boline	2001	B.S. (Grad. School, Finch Health Sciences)
	Pleskac, Timothy	2000	B.S. (Grad. School, Univ. of Maryland)
	Kreber, Lisa	1999	B.S. (Grad. School, Univ. of Colorado)
	Karlen, Sarah, J.	1999	B.S. (Grad. School, UC-Davis)
	Kosinski, Catherine	1997	B.S. (Grad. School, UIC)
	Beenken, Beth Ann	1996	B.S. (Medical School, Univ. of Iowa)
	Bunten, Carol	1995	B.S. (Medical School, Univ. of Iowa)
	Mueller, Thomas	1995	B.S.

\* Winner of the Spence and Lewis Awards from the Department of Psychology and the Dissertation Award from the International Society for Developmental Psychobiology (ISDP)

† Winner of the Gormezano Award (for the best student-authored paper in BCN), the Lewis Award from the Department of Psychology, and the Dissertation Award from the International Society for Developmental Psychobiology (ISDP)

# Winner of the Simon Award from the Department of Psychology and the Gormezano Award (for the best student-authored paper in BCN)

\*\* Winner of a Ballard Seashore Dissertation Year Fellowship (2010-2011) and the Gormezano Award (for the best student-authored paper in BCN)

## OTHER CONTRIBUTIONS TO INSTRUCTIONAL PROGRAMS

### Comprehensive Exam Committees

A. Korthank (1995); G. Sokoloff, (1998); J. Kreider (1998); A. Grippo (2000); Shujing Xu (2000); D. Nicholson (2000); J. Vaidya (2001); A. Grippo (2001); S. J. Lewis (2001); K. Karlsson (2002); Adele Seelke (2003); Imelda Pasley (2004); Michael Morris (2004); Ethan Mohns (2005); Damon Ng (2005); Andy Gall (2006); Amy Jo Marcano-Reik (2006); Dan Brooks (2007); William Todd (2008); Aaron Buss (2009); Ryan Opheim (2009); Marcus Galle (2009); Jeremy Duncan (Biology, 2009); Mary Goldsberry (2010); Adam Steinmetz (2011, chair)

### M.A. Committee Service

M. Henry (Johnson, 1993); M. Cicha (Johnson, 1993); J. Gagliardi (Wasserman, 1994); J. Xu (Johnson, 1995); Edison Perdomo (Johnson, 1996).

### Ph.D. Committee Service

Kim Kirkpatrick-Steger (Wasserman, 1995); Jennifer Thomas (Wasserman, 1995); Y. Moon (Gormezano, 1995); A. Eisenberg (Markovsky, Sociology, 2000); Lynn Nietfeld (Gerkin, Education, 2000); Edison Perdomo (Johnson, 2000); Greta Sokoloff (Blumberg, 2001); Joy Kreider (Blumberg, 2003); Dan Nicholson (Freeman, 2003); Gale Kleven (Robinson, 2005); Michele Brumley (Robinson, 2005); Karl Karlsson (Blumberg, 2005); Andrea Frank (Wasserman, 2007); Adele Seelke (Blumberg, 2007); Hunter Halverson (Freeman, 2008); Valerie Mendez-Gallardo (Robinson, 2011); Mark Lobas (Weiner, Neuroscience Graduate Program); Jeremy Duncan (Fritzs, Biology)

### **Research Advisory Committees (RAC) and Other Advising**

Greta Sokoloff (Blumberg); Joy Kreider (Blumberg); Penney Nichols-Whitehead (Plumert); David Medina (Wasserman); Brenda Donaghy (Gormezano); Maura Stansfield (Robinson), Dan Nicholson (Freeman); Gale Kleven (Robinson); Sean Lewis (Blumberg); Michele Brumley (Robinson); Andrea Frank (Wasserman); Karl Karlsson (Blumberg); Adele Seelke (Blumberg); Ethan Mohns (Blumberg); Chi Wing Ng (Poremba); Amy Jo Marcano (Robinson); Jeffrey Anderson (Blumberg); Andrew Gall (Blumberg); Daniel Brooks (Wasserman); William Todd (Blumberg); Valerie Mendez-Gallardo (Robinson); Katie Devine (Robinson); Jang Jin Kim (Lee); Yongsang Jo (Lee); Mary Levillain (Freeman); Seth Hurley (Johnson); Alex Tiriac (Blumberg), Xin Huang (Neuroscience Graduate Program), Brandt Uitermarkt (Blumberg)

### **Undergraduate Honors Committees**

C. Novak (Johnson, 1993); S. Ulrich (Wasserman, 1993); J. Tremmel (Christensen, 1994); C. Betti (Wasserman, 1994); T. Mueller (Blumberg, 1995); C. Bunten (Blumberg, 1995); S. Pertzborn (Robinson, 1995); B. A. Beenken (Blumberg, 1996); D. Peterson (Robinson, 1996). C. J. Kosinski (Blumberg, 1997); S. Karlen (Blumberg, 1999); L. Kreber (Blumberg, 1999); T. Pleskac (Blumberg, 2000); K. Bennett (Robinson, 2000); O. Bailey (Robinson, 2000); E. Johnson (Blumberg, 2003).

### **Undergraduates Supervised in the Laboratory (Inc. 031:185, Research Practicum)**

Matthew Stolba, Donald Peterson, Robert Hoover, Colin MacMurray, Carol Bunten, Wayne Lance, Tom Mueller, Kristi Kelly, Greta Sokoloff, Nancy Beach, Mary Lou Schneider, Robert Legislador, Tim Hunsicker, Beth Ann Beenken, Catherine Kosinski, Gregory Garner (SROP), Everett Nixon (SREP), Sarah Karlen\*, Nigel Kopp, Lisa Kreber, Megan Adams, Jeremy Bertsch, Jayson Eiberg, Elizabeth Boline, Tara Goldader, Necole Streeper (IBA), Eric Johnson; Jessica Middlemis-Brown\*†; Lastascia Granger (IBA); Erin Nelson; Cassandra Coleman; James Gibson (IBA); Colorado Reed; Lauren Jones; James Willey; Jordan Williams, Ashlyn Gerth (IBA), Alexander Fanning, Ben Peterson, Sheela Hussey.

\* Recipient of the Collegiate Scholar Award

† Recipient of the Robbie Prize (Biological Sciences)

## **SERVICE**

### **DEPARTMENT**

Faculty search committee, Department of Psychology (BCN), 2004-2005, 2009-2010.

Committee for Departmental Self-Study: 2000-2002.

Volunteered as "Departmental Web Czar," a job that included reorganizing, rewriting, and updating the department's web pages: 1999-2002.

Renovation Planning Committee: 1998-2003

Departmental Colloquium Committee: 1998-2002

Training Area Coordinator (Behavioral and Cognitive Neuroscience): 1996-2002

Chair of BCN faculty recruiting committee: 1996-1997, 1999-2000

Committee on Graduate Studies: 1996-2002

Interim Chair, Animal Care and Use Committee: 1999

Organized and chaired four "Good-to-Great" meetings: Summer, 1999

Ad-Hoc Graduate Student Recruiting Committee: 1995-1996

Endowment Committee: 1994-1995

Professional Concerns Committee: 1994-1995

Faculty Advisory Committee: 1994-1997 (3-year elected term)

Committee on Undergraduate Studies: 1993-1994

### **COLLEGE**

Ad hoc member, Executive Board, Delta Center, 2011-present.

Interim Director, Delta Center, July-December, 2010.

Named Chairs and Professorships ad hoc committee, College of Liberal Arts and Sciences, 2009-2012.

Student Appeals Committee, College of Liberal Arts and Sciences, 2005-2006.

Promotion review committee, School of Social Work, 2003-2004.

Elected to Faculty Assembly: 2003-2006

Chair, Dean's Task Force for the Promotion of Excellence in the College of Liberal Arts and Sciences, 2002.

Internal review committee of the Department of Anthropology: Fall, 2001.

Faculty Evaluation Committee for Semester Assignments, College of Liberal Arts and Sciences: Fall, 1998.

### **UNIVERSITY**

Provost Search Committee, 2010-2011.

Neurosensory Genetics of Aging faculty search committee (cluster hire), Department of Biology, 2010-2011, 2011-2012.

Admission Committee, Neuroscience Graduate Program: 2010-2011, 2011-2012.

Executive Committee, Neuroscience Graduate Program: 2000-2002.

Curriculum Committee, Neuroscience Graduate Program: 1997-1999; Summer, 2000-2001.

Biosciences Advisory Council, Office of the Vice-President for Research: 1997-1999.

Curriculum and Comprehensives Committee, Neuroscience Graduate Program: 1996-1997.

Admissions Committee, Neuroscience Graduate Program: 1993-1994; 1994-1995.

## **PROFESSION**

### **Journals and Other Publications**

Editor-in-Chief, *Behavioral Neuroscience*, 2008-2014.

Co-Editor (with John Spencer and David Shenk) of Topic Room entitled "Individual Development" for Scitable (<http://www.nature.com/scitable>), published by Nature Publishing Group, 2011-present.

Reviewing Editor, *Frontiers in Sleep and Chronobiology*, 2010-present.

Consulting Editor, *Behavioral Neuroscience*, 2007.

Associate Editor, *Behavioral Neuroscience*, 2001-2007.

Editorial Board, *Developmental Psychobiology*, 1997-present.

Ad hoc reviewer for: *American Journal of Physiology*, *Animal Behaviour*, *Behavioral & Brain Sciences*, *Behavioral Neuroscience*, *Behaviour*, *Behavioural Brain Research*, *Brain Research*, *Canadian Journal of Physiology and Pharmacology*, *Cerebral Cortex*, *Child Development*, *Current Biology*, *Developmental Psychobiology*, *Developmental Psychology*, *Developmental Reviews*, *Epilepsia*, *European Journal of Pharmacology*, *Infant Behavior and Development*, *Journal of Comparative Psychology*, *Journal of Neuroscience*, *Neuroscience and Biobehavioral Reviews*, *Neuroscience Letters*, *Physiology & Behavior*, *Proceedings of the National Academy of Sciences (PNAS)*, *Psychological Bulletin*, *Psychological Review*, *Psychonomic Bulletin & Review*, *Sleep*

### **NIH Grant Review Panels**

Mail reviewer, Pathway to Independence (K99) program, July 2011, February 2012.

Member, Special Emphasis Panel for evaluation of K18 awards through OppNet, BBBP-L, June 28, 2010.

Ad Hoc Member, Neurobiology of Circadian Rhythm and Sleep (IFCN-D 3), March, 2007; Ad Hoc Member, Biobehavioral and Behavioral Processes-1 (BBBP-1), Center for Scientific Review, National Institutes of Health, June, 2002; June, 2003; October, 2005.

Member of grants review panel, "Animal models of SIDS" RFA, National Institute of Child Health and Human Development, August 1991.

### **Other Grant Reviewing**

Citizens United for Research in Epilepsy (CURE), Member of Scientific Review Board, 2004-present.

National Science Foundation

### **Professional Societies**

Conference organizer, Winter Animal Behavior Conference, Steamboat, Colorado, January 14-21, 2012.

President, International Society for Developmental Psychobiology (ISDP), 2007-2008.

Executive Committee, International Society for Developmental Psychobiology (ISDP), 2006-2009.  
American Psychological Association/Bureau of Scientific Affairs (APA/BSA) liaison to the Society for Neuroscience, 2005-2007.  
Program Committee (Division 6), American Psychological Association, 2005-2007 (Chair, 2005-2006).  
Member, Committee on Animal Research and Ethics (CARE), American Psychological Association, 2002-2005 (Chair, 2005).  
Board Member, International Society for Developmental Psychobiology, 1998-2002.  
Co-organizer of the annual Winter Animal Behavior Conference, Jackson, Wyoming, January, 2001.  
Invited participant, American Psychological Association's (APA) 3rd annual Science Leadership Conference (SciLC), Adventures in Advocacy: Training the Civic Scientist, October 13-15, 2007.  
Outside reviewer for promotion evaluations (tenure and full):  
Department of Psychology, Cornell University, Ithaca, New York  
Department of Neurology, Medical College of Wisconsin, Milwaukee, Wisconsin  
Department of Psychological Sciences, Purdue University, West Lafayette, Indiana (twice)  
Department of Psychology, Indiana University, Bloomington, Indiana  
Department of Psychology, University of California at Davis, Davis, California  
Department of Education, Rutgers University, New Brunswick, New Jersey  
Department of Psychology, University of Tennessee, Knoxville, Tennessee

### **Textbook Reviews**

Rosenzweig, M. R., Breedlove, S. M., & Leiman, A. L. *Biological Psychology, Second Edition*, Sinauer Associates, Inc.

### **External Departmental Reviews**

Department of Psychology, University of Massachusetts at Boston, evaluation of readiness for a Ph.D. program, August, 2010.

Department of Psychology, University of Nebraska at Omaha, February, 1999.

### **Miscellaneous**

Internal Advisory Board, SIDS Program Project Grant, Children's Hospital Boston, Dec. 9, 2011.

### **COMMUNITY**

Evolution and Intelligent Design, Trinity Episcopal Church, Iowa City, February 28, 2010.

Co-organizer of the 2<sup>nd</sup> Annual Iowa City Darwin Day Celebration, February 15-16, 2008.

Invited speaker, Secular Humanist Group, Iowa City, January 31, 2006.

One of four participants in a panel discussion on Intelligent Design sponsored by the UI Freethinkers, October 19, 2005.

One of several authors "auctioned off" for the Iowa City Public Library's "Celebrating Iowa Authors Annual Fundraiser," May 1, 2005.