

Michael W. Shiflett, Ph.D.

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Education

- 2003 Ph.D., Psychology, Cornell University
Advisor: Dr. Timothy J. Devoogd
1997 B.A., Psychology, University of California, Berkeley
Distinction and High Honors in Research

Positions Held

- 2009-pres Research Associate; Rutgers, the State University of New Jersey, Newark,
Department of Psychology
2008 Adjunct Assistant Professor; Occidental College, Department of Psychology
2006-2008 Post-doctoral Scholar; University of California, Los Angeles, Department of
Psychology; Advisor: Dr. Bernard W. Balleine
2003-2006 Post-doctoral Scholar; University of Pittsburgh, Department of Neurobiology;
Advisor: Dr. Edda Thiels

Honors and Awards

- 1998, 2000 Sage Fellowship, Cornell University
2000 Honorable Mention, Frank Beach Award for Outstanding Publications
in the Journal of Comparative Psychology
1997 Warner Brown Prize for Undergraduate Research in Psychology, UC Berkeley
1994 Kraft Scholar, UC Berkeley

Grant Support

Current

- 2009 PI, National Institute on Drug Abuse Behavioral Science Track Award for Rapid
Transition (B/START) R03 DA026559 "Pavlovian Influences on Reward-seeking
Behavior". 05/15/2009-04/30/2010 \$61,445

Previous

- 2006-2007 National Institute on Drug Abuse Ruth L. Kirschstein National Research Service
Award for Individual Post-doctoral Fellows
2003-2005 National Institutes of Neurological Disorders and Stroke, Training in the

2001-2003 Neurobiology of Neurodegenerative Disease, Post-doctoral fellowship
National Institute of Mental Health Ruth L. Kirschstein National Research Service
Award for Individual Pre-doctoral Fellows

Publications

Peer-Reviewed Articles

- 2009 Shiflett, M.W., Brown, R.A., and Balleine, B.W. Acquisition and performance of goal-directed instrumental actions depends on ERK signaling in distinct regions of dorsal striatum in rats. *Journal of Neuroscience* in press.
- Shiflett, M.W., Mauna, J.C., Chipman, A.M., Peet, E. and Thiels, E. Appetitive Pavlovian conditioned stimuli increase CREB phosphorylation in the nucleus accumbens. *Neurobiology of Learning and Memory* 92(3): 451-4
- 2008 Shiflett, M.W., Martini, R.P., Mauna, J., Foster, R.L., Peet, E. and Thiels, E. Cue-elicited reward seeking requires Extracellular Signal-Regulated Kinase activation in the Nucleus Accumbens. *Journal of Neuroscience* 28(6): 1434-43
- 2004 Shiflett, M.W., Rankin, A.Z., Tomaszycski, M.L., and DeVoogd, T.J. Cannabinoid antagonism in the hippocampus improves memory in food-storing birds, but with a cost. *Proceedings of the Royal Society of London. Series B, Biological Sciences* 271(1552):2043-8
- 2003 Shiflett, M.W., Tomaszycski, M.L., Rankin, A.Z., DeVoogd, T.J. Long-term memory for spatial locations requires NMDA-receptor activation in the hippocampus of a food-storing bird. *Behavioral Neuroscience* 118(1):121-130.
- Shiflett, M.W., Smulders, T.V., Benedict, L., DeVoogd, T.J. Reversible inactivation of the hippocampal formation in food-storing black-capped chickadees (*Parus atricapillus*). *Hippocampus* 13(4):437-44.
- 2002 Shiflett, M.W., Gould, K.L., Smulders, T.V., DeVoogd, T.J. Septum volume and food-storing behavior are related in parids. *Journal of Neurobiology* 51(3):215-22.
- 2000 Smulders, T.V., Shiflett, M.W., Sperling, A.J., DeVoogd, T.J. Seasonal changes in neuron numbers in the hippocampal formation of a food-hoarding bird: the black-capped chickadee. *Journal of Neurobiology* 44(4):414-22.
- 1999 Jacobs, L.F., and Shiflett, M.W. Spatial orientation on a vertical maze by free-ranging fox squirrels. *Journal of Comparative Psychology* 113(2) 116-27.
- 1998 Lavenex P., Shiflett, M.W., Lee, R.K., Jacobs, L.F. Spatial versus non-spatial relational learning in free-ranging fox squirrels (*Sciurus niger*). *Journal of Comparative Psychology* 112(2) 127-36.

Manuscripts in preparation

Shiflett, M.W., Balleine, B.W. Disconnection of basolateral amygdala from nucleus accumbens reveals dissociable components of incentive behavior in rats.

Abstracts and Presentations

- 2009 Shiflett, M.W., Balleine, B.W. Disconnection of basolateral amygdala and nucleus accumbens dissociates the effects of expected and experienced reward on instrumental performance in rats. *39th Annual meeting of the Society for Neuroscience* Chicago IL
- 2008 Zimmerman, E.K., Mauna, J.C., Shiflett, M.W., Chipman, A.M., Foster, R.L., Peet, E., Thiels, E. CREB phosphorylation in the nucleus accumbens: regulation by NMDA receptors and ERK activation. *38th Annual meeting of the Society for Neuroscience*. Washington DC
- 2007 Shiflett, M.W., and Balleine, B.W. MAPK/ERK activation in the dorsomedial striatum is necessary for action-outcome encoding during instrumental conditioning. *37th Annual meeting of the Society for Neuroscience*. San Diego CA.
- 2006 Shiflett, M.W., Mauna, J. and Thiels, E. Reward-paired conditioned stimuli activate CREB in the nucleus accumbens. *36th Annual meeting of the Society for Neuroscience*. Atlanta GA.
- 2005 Thiels, E, Palmatier, M.I., Shiflett, M.W., Caggiula, A.R., Sved, A.F. ERK activation during drug primed reinstatement of nicotine self-administration. *35th Annual meeting of the Society for Neuroscience*. Washington DC
- Shiflett, M.W., Martini, R.P., Golden, S., Thiels, E. Exposure to a reward-paired stimulus increases striatal ERK activation: implications for cue-induced drug craving. *35th Annual meeting of the Society for Neuroscience*. Washington DC.
- Shiflett, M.W., Martini, R.P., Golden, S., Thiels, E. Increased striatal ERK activation following exposure to an appetitive conditioned stimulus. *7th annual Cold Spring Harbor Laboratory meeting for Learning and Memory*. Cold Spring Harbor NY
- 2004 Shiflett, MW, Rabinowitz JS, Tarr, BA, Buchan ZR, DeVogd TJ Captivity causes hippocampal shrinkage in a food-storing bird. *34th annual meeting of the Society for Neuroscience*. San Diego CA
- 2002 Shiflett, MW, Rankin, AZ, and DeVogd, TJ Opposing effects of NMDA-R and cannabinoid (CB1-R) inactivation on spatial memory in food-storing birds. *32nd Annual meeting of the Society for Neuroscience*. Orlando FL
- 2001 Shiflett, MW, Gould, K.L., Smulders, T.V. and DeVogd, T.J. Septum Volume and Food-storing Behavior are related in Parids. *31st Annual meeting of the Society for Neuroscience*. San Diego CA
- Shiflett, M.W., Gould-Beierle, K.L., Smulders, T.V. and DeVogd, T.J. Volume of the avian septal nucleus increases in relation to food-storing behavior. *6th International Congress of Neuroethology*. Bonn, Germany.

- 2000 Shiflett, M.W., Smulders, T.V., Benedict, L. and DeVoogd, T. J. Inactivation of the hippocampus impairs spatial but not visual memory in food-storing black capped chickadees (*Poecile Atricapillus*). *30th Annual meeting of the Society for Neuroscience*. New Orleans LA
- 1998 Jacobs, L.F. and Shiflett, M.W. Memory in an arboreal environment: Spatial orientation on a vertical maze in free-ranging fox squirrels. *29th Annual meeting of the Society for Neuroscience* Los Angeles CA

Invited Talks

- 2008 "Neural Mechanisms Underlying Pavlovian and Instrumental Incentive Learning"
Psychology Department Colloquium, Rutgers University Newark, Newark NJ
- 2003 "Spatial memory and the hippocampus in food-storing Black-capped Chickadees"
Animal Cognition Symposium, University of Western Ontario, London ON

Professional Memberships

- 1998-pres Society for Neuroscience
2009-pres Pavlovian Society

Ad-hoc Journal Reviews

Journal of Neuroscience

Teaching Experience

Courses taught

- 2008 Psychological Statistics, Occidental College

Guest Lectures

- 2009 "Addiction", Foundations of Neuroscience, Rutgers University Newark

Teaching Assistant

- 1999, 2000 Introduction to Biopsychology, Cornell University
2000 Neurobiology of Learning and Memory, Cornell University
2001 Perception, Cornell University

Undergraduate Research Supervision

- 2009 Jeniffer Rodriguez: Undergraduate student, Rutgers University
2009 Roxana Morales: Undergraduate student, Rutgers University
2006 Rebecca Foster: currently PhD student, CU Boulder
2005 Jessica Levine: currently Research assistant, Caltech
2004 Sam Golden: currently Post-baccalaureate researcher, NIDA

2003 Ross Martini: currently MD student, Brown University
2002 Jeremy Rabinowitz: currently PhD student, University of Rochester
2001 Alex Rankin: currently MD student, Rosalind Franklin Medical School
2000 Mike Kalogiannis: currently PhD student, New York Medical College
1999 Lauryn Benedict: currently Post-doctoral fellow, UC Berkeley

References

Timothy J. DeVoogd, Ph.D.
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