

Curriculum Vitae
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Michael Thomas Bardo

ADDRESS

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PERSONAL

Birthdate: 1 February 1953
Birthplace: Chicago, IL
Spouse: Patricia Louise Bardo
Children: Leslie Erin (b. 1991), Christine Andrea (b. 1993)

DEGREES

B.S. Eastern Illinois University, Charleston, IL 1974
Major: Psychology
M.A. Eastern Illinois University, Charleston, IL 1976
Major: Psychology
Ph.D. Iowa State University, Ames, IA 1980
Major: Psychology
Minor: Statistics

POSITIONS HELD

1975-76 Research Assistant, Department of Psychology, Eastern Illinois University, Charleston, IL
1978-79 Instructor, Des Moines Area Community College, Boone, IA
1979 Instructor, Department of Psychology, Drake University, Des Moines, IA
1976-80 Research Assistant, Department of Psychology, Iowa State University, Ames, IA
1980-82 Postdoctoral Research Fellow, Department of Pharmacology, University of Iowa, Iowa City, IA
1982-88 Assistant Professor, Department of Psychology, University of Kentucky, Lexington, KY
1989, 95-96 Visiting Scientist, Department of Anatomy and Neurobiology and Pacific Biomedical Research Center, Bekesy Laboratories, University of Hawaii, Honolulu, HI
1988-94 Associate Professor, Department of Psychology, University of Kentucky, Lexington, KY, Department of Psychology, University of Kentucky, Lexington, KY
1994- Professor, Department of Psychology, University of Kentucky, Lexington, KY, Department of Psychology, University of Kentucky, Lexington, KY
1999-02 Director of Graduate Studies, Department of Psychology, University of Kentucky, Lexington, KY

- 2001-03 Scientific Director, Center for Prevention Research, University of Kentucky, Lexington, KY
- 2002-03 Visiting Scientist, Department of Physiology and Neuroscience, Medical University of South Carolina, Charleston, SC
- 2003- Director, Center for Drug Abuse Research Translation (CDART), University of Kentucky, Lexington, KY
- 2005- Scientific Advisor, Yaupon Therapeutics Inc., Radnor PA.

PHD GRADUATE STUDENTS TRAINED

- 1988 Janet L. Neisewander, Ph.D.
Dissertation Title: "Behavioral and neurochemical effects of chronic opiate antagonist treatment in senescent rats."
Present Position: Professor, Department of Psychology, Arizona State University, Tempe, AZ.
- 1992 Shana L. Pack (formerly Bowling), Ph.D.
Dissertation Title: "The effects of environmental enrichment on responsiveness to amphetamine in rats: Neurochemistry and behavior."
Present Position: Instructor, Department of Psychology, Western Kentucky University-Glasgow, Glasgow, KY.
- 1992 Cynthia A. Crawford, Ph.D.
Dissertation Title: "Age-related behavioral and neurochemical differences in the effect of irreversible antagonism of dopamine receptors in the rat."
Present Position: Professor, Department of Psychology, University of California, San Bernardino, CA.
- 1993 James K. Rowlett, Ph.D.
Dissertation Title: "Locomotor and rewarding effects of the opioid mixed agonist-antagonist buprenorphine assessed with conditioned place preference."
Present Position: Assistant Professor, Department of Psychiatry, New England Regional Primate Center, Harvard Medical School, Southborough, MA.
- 1994 Nancy A. Honeycutt, Ph.D.
Dissertation Title: "Lateralized function in patients with complex partial seizures of temporal origin."
Present Position: Assistant Professor, Department of Psychiatry, Division of Psychiatric Neuroimaging, Johns Hopkins School of Medicine, Baltimore, MD.
- 1998 Patricia M. Robinet, Ph.D.
Dissertation Title: "The role of dopamine D3 receptors in rotational behavior following a 6-hydroxydopamine lesion of the medial forebrain bundle."
Most Recent Position: Assistant Professor, Department of Psychology, Colby College, Waterville, ME.
- 1999 Jennifer E. Klebaur, Ph.D.
Dissertation Title: "The role of novelty in disruption of amphetamine self-administration."
Present Position: Adjunct Faculty, Central Piedmont Community College, Charlotte NC
- 2002 Thomas A. Green, Ph.D.

Dissertation Title: "Environmental enrichment and incentive salience factors affecting operant responding for drug and non-drug reinforcers."

Present Position: Postdoctoral Scholar, Department of Psychiatry, The University of Texas Southwestern Medical Center, Dallas, TX.

2004 Brenda J. Gehrke, Ph.D.

Dissertation Title: "Effects of environmental enrichment on methamphetamine-induced neurotoxicity."

Present Position: Postdoctoral Scholar, Intramural Research Program, National Institute on Drug Abuse, Baltimore, MD.

2005 Emily D. Klein, Ph.D

Dissertation Title: "Cocaine and sucrose cross-sensitization."

Present Position: Postdoctoral Scholar, The Language Research Center, Department of Psychology, Georgia State University, Atlanta, GA.

POSTDOCTORAL SCHOLARS TRAINED

- 1993-96 Rick A. Bevins, Ph.D. from University of Massachusetts
Present Position: Professor, Department of Psychology, University of Nebraska, Lincoln, NE.
- 1999-02 Anthony S. Rauhut, Ph.D. from University of Massachusetts
Present Position: Assistant Professor, Department of Psychology, Dickinson College, Carlisle, PA.
- 1999-03 Steven B. Harrod, Ph.D. from Kent State University
Present Position: Assistant Professor, Department of Psychology, University of South Carolina, Columbia, SC.
- 2002-04 Mary E. Cain, Ph. D. from University of Vermont
Present Position: Assistant Professor, Department of Psychology, Kansas State University, Manhattan, KS

GRADUATE STUDENTS PRESENTLY IN TRAINING

- 2002- Nichole Neugebauer
 2003- Dustin Stairs
 2004- Thomas Wooters
 2005- Andrew Meyer

EXTRAMURAL GRANTS AS PRINCIPAL INVESTIGATOR (Total Award)

- USPHS F32 DA05195, postdoctoral trainee on individual national research service award, G. F. Gebhart (Sponsor), "Opiate receptor ontogeny and morphine-induced effects," 1981-1983, \$38,080.
- USPHS R03 DA03487, principal investigator for small research grant, "Classical conditioning of drug reward," 1984-1985, \$21,601.
- Bristol-Myers Company, principal investigator for contract grant, "Reward and aversion with non-benzodiazepine anxiolytic drugs," 1985-1986, \$7,705.
- USPHS R01 DA03460, principal investigator for individual research grant, "Chronic naltrexone

- treatment and opiate action," 1985-1988, \$241,886.
- USPHS P50 DA05312, principal investigator for Project 1 in Center for Prevention Research (R. Clayton, PI), "Drug abuse prevention: A lifecourse perspective," 1987-1992, \$254,970.
- USPHS R01 DA06924, principal investigator for individual research grant, "Novelty, dopamine and drug reward," 1992-1995, \$356,811.
- USPHS R01 DA07746, principal investigator for individual research grant, "Taste cues in morphine conditioning," 1992-1995, \$260,726.
- USPHS P50 DA05312, principal investigator for Project 1 in center grant, Center for Prevention Research (R. Clayton, PI), "Drug abuse prevention: A lifecourse perspective II," 1992-1995, \$616,615.
- USPHS P50 DA05312, principal investigator for Project 1 in center grant, Center for Prevention Research (R. Clayton, PI), "Drug abuse prevention: A lifecourse perspective III," 1995-1998, \$660,750.
- USPHS R01 DA07746, principal investigator for individual research grant, "Taste cues in morphine conditioning," 1997-2000, \$257,036.
- USPHS R01 DA12964, principal investigator for individual research grant, "Novelty, dopamine and response to amphetamine," 2000-2003, \$623,246.
- USPHS P50 DA05312, principal investigator for Project 1 in center grant, Center for Prevention Research (M. Bardo, PI, effective 2003), "Drug abuse prevention: A lifecourse perspective IV," 2001-2006, \$969,271.
- USPHS R41 DA16521, principal investigator for small business research grant, "STTR: Nornicotine enantiomers and nicotine self-administration," 2003-04, \$59,682.
- USPHS U19 DA17548, principal investigator for Project 3 in cooperative agreement grant (L. Dwoskin, PI), "Development of Novel Treatments for Nicotine Addiction," 2003-08, \$1,029,562.
- USPHS R01 DA12964, principal investigator for individual research grant, "Novelty, dopamine and response to amphetamine," 2003-2008, \$1,472,400.
- USPHS R42 DA16521, principal investigator for small business research grant, "STTR: Nornicotine as a treatment for nicotine addiction," 2005-07, \$914,898.

EXTRAMURAL GRANTS AS CO-INVESTIGATOR OR MENTOR (Total Award)

- USPHS F32 DA05623, R. Bevins (Postdoctoral Trainee), "Morphine conditioning of activity using taste cues," 1995-1997, \$52,300.
- USPHS R01 DA08645, L. Dwoskin (PI), "Nornicotine contribution to the CNS effect of nicotine," 1996-2001, \$534,011.
- Tobacco and Health Research Institute, State of Kentucky, L. Dwoskin (PI), "CNS pharmacology of tobacco alkaloids," 1999-2000, \$80,000.
- Pharmacia Corporation, L. Dwoskin (PI), "Preclinical studies to determine the utility of reboxetine as a smoking cessation pharmacotherapy," 2000-2001, \$64,000.
- Tobacco and Health Research Institute, State of Kentucky, L. Dwoskin (PI), "CNS pharmacology of tobacco alkaloids," 2000-2001, \$64,601.
- USPHS F32 DA06018, S. Harrod (Postdoctoral Trainee), "Lobeline analogs and amphetamine self-administration," 2000-2002, \$69,932.
- USPHS F31 DA06093, T. Green (Predoctoral Trainee), "Environmental enrichment and nicotine reinforcement," 2000-2002, \$52,717.
- Tobacco and Health Research Institute, State of Kentucky, L. Dwoskin (PI), "CNS pharmacology of tobacco alkaloids," 2001-2002, \$50,000.
- USPHS R01 DA13519, L. Dwoskin (PI), "Development of novel therapies for methamphetamine abuse," 2000-2004, \$1,100,860.
- USPHS F32 DA16013, M. Cain (Postdoctoral Trainee), "The amygdala and amphetamine self-

administration," 2002-2004, \$81,390.
 USPHS F31 DA15974, B. Gehrke (Predoctoral Trainee), "Enrichment and methamphetamine neurotoxicity," 2002-2004, \$58,754.
 USPHS F31 DA18476, E. Klein (Predoctoral Trainee), "Cocaine and sucrose cross-sensitization in rats," 2004-2006, \$47,044.
 USPHS R01 DA13519, L. Dvoskin (PI), "Development of novel therapies for methamphetamine abuse," 2005-2010, \$2,822,079.

PROFESSIONAL MEMBERSHIPS

Society for Neuroscience
 Association of Psychological Science
 Midwestern Psychological Association
 Society for Prevention Research
 College on Problems of Drug Dependence
 New York Academy of Sciences
 APA Division 28 (affiliate member)

PEER REVIEW EXPERIENCE

1987	NIDA Contract Review Meeting, ad hoc reviewer
1987	NIDA Special Biomedical Research Review Committee II, ad hoc reviewer
1988, 2000, 2002	NSF Proposal Reviewer
1994, 2000	The Wellcome Trust, England, ad hoc reviewer
2000	NIH, NIDA Behavioral-Science Track Award for Research Transition (B/START), ad hoc reviewer
2001	NIH, NIAAA Special Emphasis Panel for training grants, ad hoc reviewer
2001, 2004	NIH, NIDA Cutting-Edge Basic Research Award (ZDA-1), ad hoc reviewer
2001	NIH, NIDA Special Emphasis Panel (SSS-C 04), ad hoc reviewer
2002	NIH, NIDA Imaging-Science Track Award for Research Transition (I/START), ad hoc reviewer
2003-	Philip Morris External Research Program, ad hoc reviewer
1999-2003	NIH, Biobehavioral and Behavioral Processes 1 (BBBP-1), IRG member
2004-	NIH, Chair of Biobehavioral Regulation, Learning and Ethology (BRLE)
2006	NIH, NIDA Special Emphasis Panel for review of center grants (ZDA1-RXL-E), ad hoc reviewer
2006	NIH, NIDA Special Emphasis Panel on epigenetics of addiction (ZDA1-RXL-E), ad hoc reviewer

Ad hoc reviewer for the following journals:

Pharmacology, Biochemistry and Behavior
Psychobiology
Physiology and Behavior
Life Sciences
Brain Research Bulletin
Psychopharmacology
Learning and Motivation
Journal of Neuroscience Methods
Neuropsychopharmacology
Psychological Reports

Behavioural Brain Research
European Journal of Pharmacology
Journal of Personality and Social Psychology: Personality Processes and Individual Differences
Journal of Pharmacology and Experimental Therapeutics
Science
Alcoholism: Clinical and Experimental Research
Experimental and Clinical Psychopharmacology
Behavioural Pharmacology
Neuroscience Letters
Journal of Abnormal Psychology
Journal of Neuroscience
Learning & Behavior

NATIONAL SERVICE

- 2003- Program Committee, Midwestern Psychological Association
- 2004- Scientific Advisory Board, Integrative Neuroscience Initiative on Alcoholism (INIA), Dr. George Koob, Consortium Coordinator
- 2005- Program Integrating Committee, Society for Prevention Research

AWARDS

- 2005- Distinguished University Scientist, Kentucky Academy of Science
- 2006- University Research Professorship, University of Kentucky

PATENT

U.S. Patent Number 5,776,957, issued on July 7, 1998, for invention titled "Nor nicotine Enantiomers for Use as a Treatment for Dopamine Related Conditions and Disease States." Co-inventors, L. Dwoskin and P. Crooks.

PUBLICATIONS

1. Bardo, M. T., and Hughes, R. A. (1978). Shock-elicited flight response in chickens as an index of morphine analgesia. *Pharmacology, Biochemistry, and Behavior*, 9, 147-149.
2. Bardo, M. T., and Hughes, R. A. (1979). Exposure to a nonfunctional hot plate as a factor in the assessment of morphine analgesia and tolerance in rats. *Pharmacology, Biochemistry, and Behavior*, 10, 481-485.
3. Bardo, M. T., Wellman, P. J., and Hughes, R. A. (1981). The role of hot plate and general environmental stimuli in morphine analgesic tolerance. *Pharmacology, Biochemistry and Behavior*, 14, 757-760.
4. Bardo, M. T., Bhatnagar, R. K., and Gebhart, G. F. (1981). Opiate receptor ontogeny and morphine-induced effects: influence of chronic footshock stress in preweanling rats. *Developmental Brain Research*, 1, 487-495.
5. Bardo, M. T., and Hughes, R. A. (1981). Single-dose tolerance to morphine-induced analgesic and hypoactive effects in infant rats. *Developmental Psychobiology*, 14, 415-424.
6. Hughes, R. A., and Bardo, M. T. (1981). Shuttlebox avoidance by rats using white noise intensities from 90-120 DB SPL as the UCS. *Journal of Auditory Research*,

- 21, 109-118.
7. Bardo, M. T., and Gunion, M. W. (1982). Within- and between-subjects differences in the effect of morphine in mice. Psychological Reports, 50, 567-573.
 8. Bardo, M. T., Bhatnagar, R. K., Gebhart, G. F., and Hughes, R. A. (1982). Opiate receptor development in midbrain and forebrain of posthatch chicks. Developmental Brain Research, 3, 668-673.
 9. Bardo, M. T., Bhatnagar, R. K., and Gebhart, G. F. (1982). Differential effects of chronic morphine and naloxone on opiate receptors, monoamines, and morphine-induced behaviors in preweanling rats. Developmental Brain Research, 4, 139-147.
 10. Bardo, M. T., Bhatnagar, R. K., and Gebhart, G. F. (1982). An improved filtration procedure for measuring opiate receptors in small regions of rat brain. Journal of Neurochemistry, 39, 1751-1754.
 11. Bardo, M. T., Bhatnagar, R. K., and Gebhart, G. F. (1983). Age-related differences in the effect of chronic administration of naloxone on opiate binding in rat brain. Neuropharmacology, 22, 453-461.
 12. White, S. R., Bhatnagar, R. K., and Bardo, M. T. (1983). Norepinephrine depletion in the spinal cord gray matter of rats with experimental allergic encephalomyelitis. Journal of Neurochemistry, 44, 1771-1773.
 13. Bardo, M. T., Bhatnagar, R. K., and Gebhart, G. F. (1983). Chronic naltrexone increases opiate binding in brain and produces supersensitivity to morphine in the locus coeruleus of the rat. Brain Research, 289, 223-234.
 14. Bardo, M. T., Miller, J. S., and Neisewander, J. L. (1984). Conditioned place preference with morphine: the effect of extinction training on the reinforcing CR. Pharmacology, Biochemistry and Behavior, 21, 545-549.
 15. Bardo, M. T., Miller, J. S., and Risner, M. E. (1984). Opiate receptor supersensitivity produced by chronic naloxone treatment: dissociation of morphine-induced antinociception and conditioned taste aversion. Pharmacology, Biochemistry and Behavior, 21, 591-597.
 16. Bardo, M. T., and Risner, M. E. (1985). Biochemical substrates of drug abuse. In S. Maisto and M. Galizio (Eds.), Determinants of substance abuse: biological, psychological and environmental factors (pp. 65-99). New York: Plenum Press.
 17. Bardo, M. T., Schmidt, R. H., and Bhatnagar, R. K. (1985). Effects of morphine on sprouting of locus coeruleus fibers in the neonatal rat. Developmental Brain Research, 22, 161-168.
 18. Miller, J. S., McCoy, D. F., Kelly, K. S., and Bardo, M. T. (1986). A within-event analysis of taste-potentiated odor and contextual aversions. Animal Learning and Behavior, 14, 15-21.
 19. Bardo, M. T., Neisewander, J. L., and Miller, J. S. (1986). Repeated testing attenuates conditioned place preference with cocaine. Psychopharmacology, 89, 239-243.
 20. Bardo, M. T., and Neisewander, J. L. (1986). Single-trial conditioned place preference using intravenous morphine. Pharmacology, Biochemistry and Behavior, 25, 1101-1105.
 21. Miller, J. S., McCoy, D. F., Kelly, K. S., and Bardo, M. T. (1987). Within-compound associations between taste and contextual stimuli. Bulletin of the Psychonomic Society, 25, 124-125.
 22. Bardo, M. T., and Neisewander, J. L. (1987). Chronic naltrexone sensitizes the reinforcing and locomotor-activating effects of morphine. Pharmacology, Biochemistry and Behavior, 28, 267-273.
 23. Neisewander, J. L., and Bardo, M. T. (1987). Expression of morphine-conditioned hyperactivity is attenuated by naloxone and pimozide. Psychopharmacology, 93, 314-319.

24. Bardo, M. T., Neisewander, J. L., and Ennis, R. B. (1988). Chronic treatment with naltrexone enhances morphine-stimulated dopamine neurotransmission: neurochemical and behavioral evidence. Neuropharmacology, *27*, 1103-1109.
25. Isaac, W. L., Nonneman, A. J., Neisewander, J. L., Landers, T., and Bardo, M. T. (1989). Prefrontal cortex lesions differentially disrupt cocaine reinforced conditioned place preference, but not conditioned taste aversion. Behavioral Neuroscience, *103*, 345-355.
26. Neisewander, J. L., Nonneman, A. J., McDougall, S. A., and Bardo, M. T. (1989). Up-regulation of opiate receptors following chronic naloxone treatment in aged rats. Neurobiology of Aging, *10*, 55-58.
27. Bardo, M. T., Neisewander, J. L., and Pierce, R. C. (1989). Novelty-induced place preference behavior in rats: Effects of opiate and dopaminergic drugs. Pharmacology, Biochemistry and Behavior, *32*, 683-689.
28. Neisewander, J. L., Rowlett, J. K., Nonneman, A. J., and Bardo, M. T. (1989). Up-regulation of opiate receptors following chronic naltrexone treatment in mature and aged male and female rats. Progress in Clinical and Biological Research, *292*, 471-476.
29. McDougall, S. A., Neisewander, J. L., Bardo, M. T., and Zolman, J. F. (1989). Ontogenetic changes in (³H)-spiroperidol binding sites in posthatch chick brain. Life Sciences, *44*, 1515-1520.
30. Neisewander, J. L., Rowlett, J. K., Nonneman, A. J., and Bardo, M. T. (1989). Up-regulation of opiate receptors following chronic naltrexone treatment in mature and aged male and female rats. In D. A. Butterfield (Ed.), Biological and synthetic membranes, (pp. 471-476). New York: Alan Liss.
31. Houdi, A. A., Bardo, M. T., and Van Loon, G. R. (1989). Opioid mediation of cocaine-induced hyperactivity and reinforcement. Brain Research, *497*, 195-198.
32. Neisewander, J. L., McDougall, S. A., Bowling, S. L., and Bardo, M. T. (1989). Conditioned taste aversion and place preference with buspirone and gepirone. Psychopharmacology, *100*, 485-490.
33. Neisewander, J. L., Pierce, R. C., and Bardo, M. T. (1990). Naloxone enhances the expression of morphine-induced conditioned place preference. Psychopharmacology, *100*, 201-205.
34. Pierce, R. C., Crawford, C. A., Nonneman, A. J., Mattingly, B. A. and Bardo, M. T. (1990). Effect of forebrain dopamine depletion on novelty-induced place preference behavior in rats. Pharmacology, Biochemistry and Behavior, *36*, 321-325.
35. Miller, J. S., Kelly, K. S., Neisewander, J. L., McCoy, D. F., and Bardo, M. T. (1990). Conditioning of morphine-induced taste aversion and analgesia. Psychopharmacology, *101*, 472-480.
36. Bardo, M. T., Bowling, S. L. and Pierce, R. C. (1990). Changes in locomotion and dopamine neurotransmission following amphetamine, haloperidol and exposure to novel environmental stimuli. Psychopharmacology, *101*, 338-343.
37. Bardo, M. T., Lacy, M., and Mattingly, B. A. (1990). Effects of apomorphine on novelty-induced place preference behavior in rats. Pharmacology, Biochemistry and Behavior, *37*, 89-93.
38. Rowlett, J. K., Mattingly, B. A., and Bardo, M. T. (1991). Neurochemical and behavioral effects of acute and chronic treatment with apomorphine in rats. Neuropharmacology, *30*, 191-197.
39. Bardo, M. T., and Mueller, C. W. (1991). Sensation seeking and drug abuse prevention from a biological perspective. In L. Donohew, H. Sypher, and W. Bukoski (Eds.), Persuasive communication and drug abuse prevention (pp. 195-207). Hillsdale, NJ: Lawrence Erlbaum Assoc.

40. McDougall, S. A., and Bardo, M. T. (1991). Ontogenetic changes in dopaminergic pre and postsynaptic elements in rat brain: effects of quinpirole and sulpiride. Neuropharmacology, *30*, 531-534.
41. Bardo, M. T., and Hammer, R. P. (1991). Autoradiographic localization of dopamine D₁ and D₂ receptors in rat nucleus accumbens: resistance to differential rearing conditions. Neuroscience, *45*, 281-290.
42. Pierce, R. C., Rowlett, J. K., Bardo, M. T., and Rebec, G. V. (1991). Chronic ascorbate potentiates the effects of chronic haloperidol on behavioral supersensitivity but not D₂ dopamine receptor binding. Neuroscience, *45*, 373-378.
43. Blanchard, D. C., Cholvanich, P., Blanchard, R. J., Clow, D. W., Hammer, R. P., Rowlett, J. K., and Bardo, M. T. (1991). Serotonin, but not dopamine, metabolites are increased in selected brain regions of subordinate male rats in a colony environment. Brain Research, *568*, 61-66.
44. Rowlett, J. K., Pedigo, N. W., and Bardo, M. T. (1991). Catalepsy produced by striatal microinjections of the D₁ dopamine receptor antagonist SCH23390 in neonatal rats. Pharmacology, Biochemistry and Behavior, *40*, 829-834.
45. Crawford, C. A., McDougall, S. A., Rowlett, J. K., and Bardo, M. T. (1992). Depletion of dopamine binding sites and changes in dopamine and dihydroxyphenylacetic acid levels in 17- and 90-day-old rat striatum after irreversible receptor antagonism. Neuroscience Letters, *137*, 265-269.
46. Randall, C. K., Kraemer, P. J., Dose, J. M., Carbary, T. J., and Bardo, M. T. (1992). The biphasic effect of morphine on odor conditioning in neonatal rats. Developmental Psychobiology, *25*, 355-364.
47. Rowlett, J. K., Mattingly, B. A., and Bardo, M. T. (1993). Neurochemical correlates of behavioral sensitization following repeated apomorphine treatment: assessment of the role of D₁ dopamine receptor stimulation. Synapse, *14*, 160-168.
48. Bardo, M. T., Bowling, S. L., Robinet, P. M., Rowlett, J. K., Lacy, M., and Mattingly, B. A. (1993). Role of dopamine D₁ and D₂ receptors in novelty-maintained place preference. Experimental and Clinical Psychopharmacology, *1*, 101-109.
49. Bowling, S. L., Rowlett, J. K., and Bardo, M. T. (1993). The effect of environmental enrichment on amphetamine-stimulated locomotor activity, dopamine synthesis and dopamine release. Neuropharmacology, *32*, 885-893.
50. Randall, C. K., Kraemer, P. J., Valone, J. M., and Bardo, M. T. (1993). Odor conditioning with morphine: conditioned preference, aversion and analgesia. Psychobiology, *21*, 215-220.
51. Kolta, M. G., and Bardo, M. T. (1993). Opioid modulation of amphetamine-stimulated dopamine release and concentration in rat striatal slices. Pharmacology, Biochemistry and Behavior, *46*, 819-825.
52. Neisewander, J. L., Nonneman, A. J., Rowlett, J. K., and Bardo, M. T. (1994). Impaired supersensitivity to morphine following chronic naltrexone treatment in senescent rats. Neurobiology of Aging, *15*, 91-97.
53. Bardo, M. T., and Valone, J. M. (1994). Morphine-conditioned analgesia using a taste cue: Dissociation of taste aversion and analgesia. Psychopharmacology, *114*, 269-274.
54. Bowling, S. L., and Bardo, M. T. (1994). Locomotor and rewarding effects of amphetamine in enriched, social and isolate reared rats. Pharmacology, Biochemistry and Behavior, *48*, 459-464.
55. Crawford, C. A., Rowlett, J. K., McDougall, S. A., and Bardo, M. T. (1994). Age-dependent differences in the rate of recovery of striatal dopamine D₁ and D₂ receptors after inactivation with EEDQ. European Journal of Pharmacology, *252*, 225-231.

56. Crawford, C. A., McDougall, S. A., and Bardo, M. T. (1994). Ontogenetic effects of EEDQ on amphetamine-induced behaviors of rats: Role of presynaptic processes. Psychopharmacology, *116*, 152-160.
57. Rowlett, J. K., Gibson, T. R., and Bardo, M. T. (1994). Dissociation of buprenorphine-induced locomotor sensitization and conditioned place preference in rats. Pharmacology, Biochemistry and Behavior, *49*, 241-245.
58. Bardo, M. T., Rowlett, J. K., and Harris, M. J. (1995). Conditioned place preference using opiate and stimulant drugs: a meta-analysis. Neuroscience and Biobehavioral Reviews, *19*, 39-51.
59. Crawford, C. A., McDougall, S. A., and Bardo, M. T. (1995). Effects of EEDQ on the synthesis and metabolism of dopamine in pre-weanling and adult rats. Neuropharmacology, *33*, 1559-1565.
60. Bevins, R. A., Valone, J. M., Bradley, M. C., and Bardo, M. T. (1995). Morphine taste conditioning and analgesia: assessing conditioned and novelty-induced analgesia. Experimental and Clinical Psychopharmacology, *3*, 9-14.
61. Bardo, M. T., Bowling, S. L., Rowlett, J. K., Manderscheid, P., Buxton, S. T., and Dwoskin, L. P. (1995). Environmental enrichment attenuates locomotor sensitization, but not *in vitro* dopamine release, induced by amphetamine. Pharmacology, Biochemistry and Behavior, *51*, 397-405.
62. Clayton, R. R., Leukefeld, C., Donohew, R. L., Bardo, M. T. and Harrington, N. G. (1995). Risk and protective factors: a brief review. Drugs and Society, *8*, 7-14.
63. Rowlett, J. K., Mattingly, B. A., and Bardo, M. T. (1995). Repeated quinpirole treatment: Locomotor activity, dopamine synthesis and effects of selective dopamine antagonists. Synapse, *20*, 209-216.
64. Pierce, R. C., Rowlett, J. K., Rebec, G. V., and Bardo, M. T. (1995). Ascorbate potentiates amphetamine-induced conditioned place preference and forebrain dopamine release in rats. Brain Research, *688*, 21-26.
65. Bevins, R. A., Delzer, T. A., and Bardo, M. T. (1996). Characterization of the conditioned taste aversion produced by 7-OH-DPAT in rats. Pharmacology, Biochemistry and Behavior, *53*, 695-699.
66. Bevins, R. A., Delzer, T. A., and Bardo, M. T. (1996). Second-order conditioning detects unexpressed morphine-induced salt aversion. Animal Learning and Behavior, *24*, 221-229.
67. Bardo, M. T., Donohew, R. L., and Harrington, N. G. (1996). Psychobiology of novelty seeking and drug seeking behavior. Behavioural Brain Research, *77*, 23-43.
68. Mattingly, B. A., Fields, S. E., Langfells, M. S., Rowlett, J. K., Robinet, P. M., and Bardo, M. T. (1996). Repeated 7-OH-DPAT treatments: Behavioral sensitization, dopamine synthesis and subsequent sensitivity to apomorphine and cocaine. Psychopharmacology, *125*, 33-42.
69. Bardo, M. T., Robinet, P. M., and Hammer, R. P. (1997). Effect of differential rearing environments on morphine-induced behaviors, opioid receptors and dopamine neurotransmission. Neuropharmacology, *36*, 251-259.
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 129. Champtiaux, N., Kalivas, P. W. and Bardo, M. T. (2006). Contribution of dihydro-beta-erythroidine sensitive nicotinic acetylcholine receptors in the ventral tegmental area to cocaine-induced behavioral sensitization in rats. Behavioural Brain Research, 168, 120-126.
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 133. Stairs, D. J., Klein, E. D. and Bardo, M. T. (in press). Effects of environmental enrichment on extinction and reinstatement of amphetamine self-administration and sucrose-maintained responding. Behavioural Pharmacology.
 134. Klein, E. D., Gehrke, B. J., Green, T. A., Zentall, T. R. and Bardo, M. T. (in press). Repeated cocaine exposure facilitates sucrose-reinforced operant responding in enriched and isolated rats. Learning and Motivation.
 135. Wooters, T. E., Dwoskin, L. P. and Bardo, M. T. (in press). Age and sex differences in the locomotor effect of repeated methylphenidate in rats classified as high or low novelty responders. Psychopharmacology.
 136. Gehrke, B. J., Cass, W. A. and Bardo, M. T. (in press). Monoamine-depleting doses of methamphetamine in enriched and isolated rats: consequences for subsequent methamphetamine-induced hyperactivity and reward. Behavioural Pharmacology.
 137. Bardo, M. T., Cain, M. E. and Bylica, K. E. (in press). Effect of amphetamine on response inhibition in rats showing high or low response to novelty. Pharmacology,

Biochemistry and Behavior.

138. Cain, M. E., Green, T. A. and Bardo, M. T. (in press). Environmental enrichment decreases responding for visual novelty. Behavioural Processes.

EDITED BOOK

- R. A. Bevins and M. T. Bardo (2004), Motivational factors in the etiology of drug abuse. University of Nebraska Press, Lincoln, NE.

INVITED SEMINARS

- 1982 University of Iowa, Department of Pharmacology, Iowa City, IA.
 1983 NIDA Addiction Research Center, Lexington, KY.
 1989 University of Hawaii, Department of Anatomy and Reproductive Biology, Honolulu, HI.
 1992 National Institute on Drug Abuse, Rockville, MD.
 1993 Indiana University, Program in Neural Science, Bloomington, IN.
 1999 University of Cincinnati, Department of Psychology, Cincinnati, OH.
 2001 Indiana University Purdue University Indianapolis, Department of Psychology, Indianapolis, IN.
 2004 University of Pennsylvania, Treatment Research Center, Department of Psychiatry, Philadelphia, PA.
 2005 University of Minnesota, Tobacco Use Research Center, Minneapolis, MN.
 2005 Duke University, Duke Transdisciplinary Prevention Research Center, Durham, NC
 2005 Morehead State University, Department of Psychology, Morehead KY
 2005 Rutgers, The State University of New Jersey, Center of Alcohol Studies, Piscataway NJ
 2006 Medical College of Georgia, Department of Physiology, Augusta GA

SYMPOSIA AND INVITED CONFERENCE PRESENTATIONS

- 1987 Organizer and moderator. "Recent advances in psychopharmacology: Opioids and behavior." Midwestern Psychological Association, Chicago, IL.
 1991 Organizer and moderator. "Psychobiological approaches to studying drug abuse." Midwestern Psychological Association, Chicago, IL.
 1997 Organizer and moderator. "Applications of neuroscience to drug abuse prevention research." Society for Prevention Research, Baltimore, MD.
 1997 Invited panel speaker. "Stimuli conditioned to drugs." Society for Stimulus Properties of Drugs, New Orleans, LA.
 1998 Invited paper. "Psychobiology of novelty- and drug-seeking behaviors." Midwestern Psychological Association, Chicago, IL.
 1998 Invited panel speaker. "Reducing drug-taking behavior with novel stimuli: evidence from laboratory animals and implications for prevention research." Society for Prevention Research, Park City, UT.
 1999 Invited panel speaker. "Novel approaches to smoking cessation." Winter Conference on Brain Research, Snowmass, CO.
 1999 Invited panel speaker. "Pre-clinical, clinical and preventive perspectives on protection and liability to substance abuse and mental disorders." Society for Prevention Research, New Orleans, LA.
 1999 Invited symposium speaker. "Emerging biological targets for the treatment of nicotine dependence." College on Problems of Drug Dependence, Acapulco, Mexico.
 1999 Invited symposium speaker. "Environmental variables in the response to addictive drugs" Behavioral Pharmacology Society and European Behavioural Pharmacology

- Society, Boston, MA.
- 2000 Invited symposium speaker. "Non-traditional models of drug reinforcement: conditioned place preference." The International Study Group Investigating Drugs as Reinforcers (ISGIDAR), San Juan, Puerto Rico.
- 2002 Invited symposium speaker and organizer. "Biological Connection Between Drug and Novelty Seeking Motivational Systems." 50th annual Nebraska Symposium on Motivation, Lincoln, NE.
- 2003 Invited symposium respondent. "Risk-taking in Adolescence: What Changes and Why." New York Academy of Sciences, New York, NY.
- 2003 Invited symposium speaker. "Sensation-seeking as a risk factor in drug abuse: from neuroscience to prevention science." College on Problems of Drug Dependence, San Juan, Puerto Rico.
- 2005 Invited symposium speaker. "Developmental factors predicting drug abuse vulnerability: contribution of a rodent model." Youth with Multiple Problem Behaviors: A Translational Perspective, Bethesda, MD.
- 2005 Organizer and moderator. "Translating basic research from neural, behavioral, and social sciences to prevention: challenges and opportunities." Preconference satellite workshop at College on Problems of Drug Dependence, Orlando, FL.
- 2005 Invited symposium speaker. "Enriched environments and drug abuse vulnerability." European Behavioural Pharmacology Society, Barcelona, Spain.
- 2006 Invited symposium discussant. "Psychopharmacology of nicotine." Midwestern Psychological Association, Chicago, IL.
- 2006 Invited symposium discussant. "Intergrating neurobiological measures into prevention research." Society for Prevention Research, San Antonio, TX.