

Curriculum Vitae

Ming Li, Ph. D.

Current Position: Assistant Professor of Psychology

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Areas of Research Interests:

Psychopharmacology of Antipsychotic Drugs, Animal Models of Schizophrenia, Anxiety and Depression, Co-morbidity of Substance Use and Schizophrenia, Neurobiology of Rodent Maternal Behavior

Education

2002-July, 2005	Postdoctoral Fellow Centre for Addiction and Mental Health, Toronto, Canada Supervisors: Professor Shitij Kapur, and Dr. Paul J. Fletcher
1996-2002	Ph. D. Department of Psychology, University of Toronto, Canada Supervisor: Professor Alison S. Fleming
1993-1996	M.S. Department of Psychology, Beijing University, Beijing, China Supervisor: Professor Xiao Jian
1987-1991	B.S. Department of Psychology, Beijing University, Beijing, China

Awards and Honors

2004	D. G. Marquis Behavioral Neuroscience Award for the best paper published in <i>Behavioral Neuroscience</i> .
2002-2005	Ontario Mental Health Foundation Postdoctoral Fellowship
2006-2007	Recipient of the UNL Parents Association "Certificate of Recognition for Contributions to Students"

Active Grants

1. **Li (PI):** National Alliance for Research on Schizophrenia and Depression (NARSAD) Young Investigator Award (07/2007-06/2010): Behavioral Mechanisms of Action of Atypical Antipsychotics: A Preclinical Investigation

The goal of this grant is to examine the behavioral mechanisms of action of atypical antipsychotic drugs in the treatment of positive symptoms of schizophrenia using a conditioned avoidance response model.

2. **Li (PI):** Stanley Medical Research Institute research grant (08/2007-07/2010): Iptakalim: A Potential Antipsychotic Drug with Novel Mechanisms

The goal of this grant is to assess the potential antipsychotic efficacy of Iptakalim, a novel adenosine triphosphate (ATP)-sensitive potassium (KATP) channel opener.

3. **Li (PI):** DHHS-Nat Inst Mental Health (R03MH080822: 09/15/2007-07/31/2010): Antipsychotic Drugs and Maternal Behavior: A Preclinical Investigation

The major goals of this project are to determine the behavioral and neurochemical mechanisms underlying the adverse effects of antipsychotics on rat maternal behavior.

4. **Li (PI):** DHHS-Nat Inst Mental Health (R21MH079894: 01/01/2008-12/31/2010) : Anxiolytic Property of Atypical Antipsychotics

The major goals of this project are to determine the putative anxiolytic efficacy of atypical antipsychotic drugs using a variety of preclinical animal models.

Past Grants

1. Faculty seed grant (**PI**, 2006-2007): How Antipsychotic Drugs Work Psychologically?-----An Animal Behavioral Investigation, \$9,980

2. UNL Layman award (**PI**, co-I: Dr. Bevins, June 2006-May 2007): Persistent Avoidance Responding as an Animal Model of Schizophrenia, \$9,995

3. Nebraska Health and Human Services (**PI**, July 2007-June 2008), Nicotine Effects in Adolescent and Adult Rats, \$40,000

Teaching Experience

Psyc 465/865, Bio 419/819 Behavioral Neuroscience
 Psyc 464 Psychopharmacology
 Psyc 904 Graduate Seminar on Physiological Psychology

University and Department Services

University Level:

2007-present	Member of IACUC at UNL
2008-present	Member of NUgrant Advisory Board

Department Level:

2005-present	Member of Department of Psychology Fellowship Committee
2007-present	Member of Colloquium Committee, UNL Psychology Department
2005-present	Master and PhD thesis committees: Jennifer Murray (2005), Carmela Reichel (2005), Alexa Mead (2006) Kate Wilson (2007), Amanda Struthers (2006), Petra Kleinlein (2007), Mark Shepherd (2008)
2006-present	Undergraduate thesis supervisor: Rebecca Munro (2006), Wei He (UCARE), Ashley Rappana (2007) Justine Schulte (2008), Katherine Heupe (UCARE 2008-2009)
2006-2007	Chair of Colloquium Committee, UNL Psychology Department
1998- 2001	Student Representative to the Animal Care Committee, University of Toronto at Mississauga

Journal Review Service:

Hormone and Behavior; Developmental Psychobiology; Neuropsychopharmacology; Physiology and Behavior; Pharmacology, Biochemistry, & Behavior; Biological Psychiatry; Behavioural Pharmacology; Hippocampus; Neuroscience Letters; Brain Research, Biochemical Pharmacology

Invited Talks

1. **Li, M:** Behavioral mechanisms of antipsychotic drugs: Lessons from animal studies, Midwestern Psychological Association Conference, May 1 - 3, 2008, Chicago.

Professional Membership

Society for Neuroscience
Midwestern Psychological Association

Publications (Note: "*" denotes the corresponding author)**Peer reviewed:**

1. Chen, J, Wang, ZC, and **Li, M*** (accepted): Multiple "hits" during postnatal and early adulthood periods disrupt the normal development of sensorimotor gating ability in rats. *Journal of Psychopharmacology*.
2. Zhao, CJ, **Li, M*** (2009): The receptor mechanisms underlying the disruptive effects of haloperidol and clozapine on rat maternal behavior: A double dissociation between dopamine D2 and 5-HT2A/2C receptors. *Pharmacology, Biochemistry and Behavior*, 2009 Oct;93(4):433-42. Epub 2009 Jun 17.
3. **Li, M***, He, W, Mead, A (2009) An investigation of the behavioral mechanisms of antipsychotic action using a drug-drug conditioning paradigm. *Behavioural Pharmacology*, 2009 Mar;20(2):184-94.

4. Mead A, **Li M*** (2009) Avoidance-Suppressing Effect of Antipsychotic Drugs is Progressively Potentiated after Repeated Administration: an Interoceptive Drug State Mechanism. *Journal of Psychopharmacology*, 2009 Mar 27. [Epub ahead of print]
5. **Li, M***, He, W, Mead, A (2009) Olanzapine and risperidone disrupt conditioned avoidance responding in phencyclidine or amphetamine pretreated rats by selectively weakening motivational salience of conditioned stimulus. *Behavioural Pharmacology*, 20: 84-98.
6. Sun, T, Hu, G, **Li, M*** (2009): Repeated antipsychotic treatment progressively potentiates inhibition on phencyclidine-induced hyperlocomotion, but attenuates inhibition on amphetamine-induced hyperlocomotion: Relevance to animal models of antipsychotic drugs. *European Journal of Pharmacology*, 602:334-342.
7. Zhao, CJ, **Li, M*** (2009): Sedation and disruption of maternal motivation underlie the disruptive effects of antipsychotic treatment on rat maternal behavior. *Pharmacology, Biochemistry and Behavior*, 92: 147-156.
8. Mead, A, **Li, M***, Kapur, S (2008): Clozapine and Olanzapine Exhibit an Intrinsic Anxiolytic Property in Two Conditioned Fear Paradigms: Contrast with Haloperidol and Chlordiazepoxide. *Pharmacology, Biochemistry and Behavior*, 90 (2008) 551–562
9. **Li, M***, He, W and Munro, R (2008): Amphetamine Selectively Enhances Avoidance Responding to a Less Salient Stimulus in Rats. *Journal of Neural Transmission*, 2008 May;115(5):773-6.
10. Parada, M, King, S, **Li, M** and Fleming, A (2008): The roles of accumbal dopamine D1 and D2 receptors in maternal memory in rats. *Behavioral Neuroscience*, Apr;122(2):368-76.
11. **Li, M**, Fletcher PJ, Kapur S (2007) Time Course of the Antipsychotic Effect and the Underlying Behavioral Mechanisms. *Neuropsychopharmacology*, 2007, Feb;32(2):263-72.
12. Smith AJ, **Li M**, Becker S, Kapur S (2007) Linking Animal Models of Psychosis to Computational Models of Dopamine Function. *Neuropsychopharmacology*, 2007 Jan;32(1):54-66
13. Smith A, **Li, M**, Becker S, Kapur S (2006) Dopamine, prediction error and associative learning: A model-based account. *Network* 17:61-84.
14. **Li, M**, Budin, R, Fleming, A, and Kapur, S (2005) Effects of novel antipsychotics, amisulpiride and aripiprazole, on maternal behavior in rats. *Psychopharmacology (Berl)*. 2005, 181(3) 600-10.
15. **Li, M.**, Budin, R, Fleming, A, and Kapur, S (2005) Effects of chronic typical and atypical antipsychotic drug treatment on maternal behavior in rats. *Schizophrenia Research*, 75/2-3 pp 325-336.
16. **Li, M.** Parkes, J, Fletcher, PJ, and Kapur, S. (2004) Evaluation of the motor initiation hypothesis of APD-induced conditioned avoidance decreases. *Pharmacology, Biochemistry and Behavior*, 78(4), 811-819.

17. Smith, A, **Li, M**, Becker, S and Kapur, S. (2004) A Model of Antipsychotic Action in Conditioned Avoidance: A Computational Approach. *Neuropsychopharmacology*, 2004 Jun, 29(6) 1040-9.
18. **Li, M.**, Davidson, P, Budin, R, Kapur, S and Fleming, A (2004) Effects of typical and atypical antipsychotic drugs on maternal behavior in postpartum female rats. *Schizophrenia Research*, 2004 Sep 1;70(1):69-80.
19. **Li, M.** and A.S. Fleming (2003) The nucleus accumbens shell is critical for normal expression of pup-retrieval in postpartum female rats. *Behavioural Brain Research*, 2003. 145(1-2): p. 99-111.
20. **Li, M.** and A.S. Fleming (2003) Differential involvement of nucleus accumbens shell and core subregions in maternal memory in postpartum female rats. *Behavioral Neuroscience*, 2003. 117(3): p. 426-45.
21. Lee, A., **Li, M.** Watchus, J, Fleming AS (1999) Neuroanatomical basis of maternal memory in postpartum rats: selective role for the nucleus accumbens. *Behavioral Neuroscience*, 1999. 113(3): p. 523-38.

Invited papers

22. **Li, M***, Mead, A, Bevins, RA (2009) Individual Differences in Responding to Nicotine: Tracking Changes from Adolescence to Adulthood. *Acta Pharmacol Sin* 2009, Jun; 30 (6): 868–878
23. Kapur, S, Agid, O, Mizrahi, R, and **Li, M** (2006) How antipsychotics work—From receptors to reality. *NeuroRx*, 3 (1), 10-21.
24. Kapur, S, Mizrahi, R, and **Li, M** (2005) From dopamine to salience to psychosis - Linking biology, pharmacology and phenomenology of psychosis. *Schizophrenia Research*, 2005 Nov 1;79(1):59-68.

Book chapters

1. Fleming, A, and Li, M (2002). Psychobiology of maternal behavior in non-human mammals. Handbook of Parenting (second edition, eds. [Marc H. Bornstein](#)), Mahwah, N.J.: Lawrence Erlbaum Associates, 2002.

Conference Presentations

1. **Li, M**, He, W, and Chen, J: Effects of different regimens of repeated amphetamine and phencyclidine treatment on prepulse inhibition in rats, Society for Neuroscience, October 16-21, 2009, Chicago.
2. Zhao, CJ, and **Li, M**: The receptor mechanisms underlying the disruptive effects of haloperidol and clozapine on rat maternal behavior: A double dissociation between dopamine D2 and 5-HT2A/2C Receptors, Society for Neuroscience, October 16-21, 2009, Chicago.
3. **Li, M**, Tao, S, and Hu, G: Repeated antipsychotic treatment progressively potentiates inhibition on phencyclidine-induced hyperlocomotion, but attenuates inhibition on amphetamine-induced hyperlocomotion: Relevance to animal models of antipsychotic drugs, Society for Neuroscience, Nov. 14-18, 2008, Washington, DC.

4. **Li, M**, Munro, R, Mead, A, and He, W: Sensitization to amphetamine, but not phencyclidine, enhances avoidance responding to a less salient stimulus but does not impair social interaction and social memory in rats, Society for Neuroscience, Nov. 3-7, 2007, San Diego.
5. Mead, A, and **Li, M**: Avoidance-suppressing effect of antipsychotic drugs is enhanced after repeated administration: an interoceptive drug memory mechanism, Society for Neuroscience, Nov. 3-7, 2007, San Diego.
6. Munro R, He W, and Li M, "Amphetamine sensitization leads to abnormally heightened response to a less salient stimulus but does not impair social interaction and social memory", Midwestern Psychological Association Conference, May 3 - 5, 2007, Chicago.
7. **Li, M**, Mead, A, and Weishahn, Anxiolytic property of atypical antipsychotics: A preclinical investigation, Colorado Springs, Mar. 28-April 1, 2007
8. **Li, M**, Fletcher, P, and Kapur, S. Examining the time course of antipsychotic treatment in schizophrenia using conditioned avoidance response model, Program No. 453.17. Washington, DC: Society for Neuroscience, Nov. 12-16, 2005.
9. Ni X, **Li M**, Han J, Lu Y, Dixon L, Kapur S, Kennedy JL. Investigation of correlations between gene expression of gap junctions and acquisition and performance scores of conditioned avoidance response in rats. 60th Annual meeting of Society of Biological Psychiatry: Pathogenesis and Prevention of Major Mental Disorders, Atlanta, Georgia, USA, May 19-21, 2005.
10. Smith A., **Li M**, and Kapur, S. Understanding the Early-Onset of Antipsychotic Action: An Animal and Computational Model, 10th International Congress on Schizophrenia Research, Savannah, Georgia, USA, April 2-6, 2005.
11. **Li, M**, Budin, R, Fleming, AS, and Kapur S. (2004) Effects of chronic typical and atypical antipsychotic drug treatment on maternal behavior in rats, Society of Biological Psychiatry's 59th Annual Scientific Convention, New York, April 28-May 1, 2004.
12. Smith A. J, Becker S, **Li M**, et al. (2004) A computational model of dopamine in conditioned avoidance and impulsivity, Society of Biological Psychiatry's 59th Annual Scientific Convention, New York, April 28-May 1, 2004.
13. **Li, M**, Fletcher, PJ, and Kapur, S. (2003) Antipsychotics suppress stimulus incentive salience: Implications for their therapeutic actions in schizophrenia, 9th International Congress on Schizophrenia Research, Colorado Springs, March 29-April 2, 2003.
14. Budin R, Li, M, Davidson, P. Fleming, AS, and Kapur, S (2003) Effects of typical and atypical antipsychotics on maternal behavior in postpartum female rats, 9th International Congress on Schizophrenia Research, Colorado Springs, March 29-April 2, 2003.
15. **Li, M**, Davidson, P, Fleming, A, and Kapur, S (2002) Effects of typical and atypical antipsychotic drugs on maternal behavior: implications for behavioral mechanisms of antipsychotics, Orlando, Society for Neuroscience Conference, Nov, 2-7.
16. **Li, M**, Smith, M-L, and Fleming, A. (2001) Nucleus accumbens shell mediates the consolidation of maternal experiences, San Diego, Society for Neuroscience Conference, Nov, 9-15.
17. **Li, M**, Kapur, S, and Fleming, A (2001). Antipsychotics interfere with maternal and social behaviors in rats: Differential effects of haloperidol and clozapine. 8th International Congress on Schizophrenia Research, Whistler Resort, British Columbia, Canada, April 28-May 2, 2001.
18. **Li, M**. and Fleming, A. (1999) Effects of lesions of two different subregions of the nucleus accumbens on maternal experience in postpartum rats. Abstracts of Society for Behavioral Neuroendocrinology, 236, 3rd annual meeting, University of Virginia, Charlottesville, Virginia.