

Curriculum Vitae

ANIL K. MALHOTRA, M.D.

BUSINESS ADDRESS

The Zucker Hillside Hospital of the
North Shore-Long Island Jewish Health System
Division of Psychiatry Research
75-59 263rd St
Glen Oaks, NY 11004
(718) 470-8012

EDUCATION

1992-1993 Clinical Associate, Experimental Therapeutics Branch, NIMH, NIH, Bethesda, MD
1989-1992 Resident in Psychiatry, Georgetown University Hospital, Washington, DC
1985-1989 M.D. Bowman Gray School of Medicine, Winston-Salem, NC
1981-1985 A.B. Cornell University, Ithaca, NY

PROFESSIONAL APPOINTMENTS

2003- Director, Psychiatry Research, The Zucker Hillside Hospital, of the North Shore-Long Island Jewish Health System, Glen Oaks, NY
2009 - Professor of Psychiatry and Behavioral Sciences, Albert Einstein College of Medicine, Bronx, NY
2001-2009 Associate Professor of Psychiatry and Behavioral Sciences, Albert Einstein College of Medicine, Bronx, NY
2008- Adjunct Associate Professor of Psychiatry, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY
2003 - Adjunct Associate Professor of Psychiatry, Stony Brook University, Stony Brook, NY
2008- Investigator, The Feinstein Institute for Medical Research
1999-2008 Associate Investigator, The Feinstein Institute for Medical Research
1998- Chief, Unit of Molecular Psychiatry, The Zucker Hillside Hospital, of the North Shore-Long Island Jewish Health System, Glen Oaks, NY
1994- Guest Researcher, Laboratory of Neurogenetics, NIAAA, NIH, Bethesda, MD
1996-1998 Chief, Unit of Pharmacogenetics, Experimental Therapeutics Branch, NIMH, NIH, Bethesda, MD
1993-1998 Senior Staff Fellow, Experimental Therapeutics Branch, NIMH, NIH

LICENSURE

Diplomate, National Board of Medical Examiners
Current medical license: New York

BOARD CERTIFICATION

American Board of Psychiatry and Neurology

AWARDS

2000 Senior Scientist Award, Tenth Biennial Winter Workshop on Schizophrenia Research
1997 Young Investigator Award, International Congress on Schizophrenia Research
1997 New Investigator Award, New Clinical Drug Evaluation Unit
1994 Dista Fellowship Award, Society of Biological Psychiatry Annual Meeting
1993 Excellence in Clinical Care and Research, NIMH
1993 Second Prize, Bingham Psychiatric Research Award
1991 Honorable Mention, Zigmond Leibensohn Award

PROFESSIONAL MEMBERSHIPS

American College of Neuropsychopharmacology
The Society of Biological Psychiatry
The New York Academy of Sciences
Collegium Internationale Neuro-Psychopharmacologicum
Schizophrenia International Research Society

EDITORIAL BOARDS

Molecular Psychiatry
Schizophrenia Bulletin
Clinical Neuropsychiatry
Current Psychiatry Reviews
Open Psychiatry Journal
Pharmacogenomics and Personalized Medicine
Schizophrenia Research and Treatment

MEETINGS ORGANIZED

The Annual Pharmacogenetics in Psychiatry Meeting – New York City, NY April, 2002 – 2010
New York Psychiatric Genetics Summer Forum – Cold Spring Harbor, NY July, 2006; July, 2007
Cognition in Bipolar Disorder Meeting – Roslyn, NY October 2006
Workshop on Schizophrenia and Related Disorders – Cold Spring Harbor, NY June 2008, 2010

RESEARCH SUPPORT COMPLETED

1 P30 MH074543-01(Kane)	09/28/05-06/30/10
NIH/NIMH Advanced Centers for Interventions and Services Research	
Early phase schizophrenia: Optimizing outcomes	
This grant will provide infrastructure support for intervention research aimed at optimizing outcomes in early phase schizophrenia.	
<i>Role: ACISR Co-Director; Director Pharmacogenetics Unit, Co-Director, Scientific Direction and Administration Unit & Trials Operation Unit</i>	
K23 MH 01760-04 (Malhotra)	09/01/99-08/31/06
NIH/NIMH Career Development	
Clinical Trials in Schizophrenia: Molecular Approaches	
This career development award is to support the PI in clinical trials research and its application to pharmacogenetic studies.	
<i>Role: P.I.</i>	
The Stanley Medical Research Institute (Bromet and Malhotra)	08/01/02-07/15/05
Predictors of Relapse in Schizophrenia	
Utilizing data from the Suffolk County Mental Health Project, a longitudinal epidemiological study of first admission psychotic disorders, this study will test the hypothesis that a functional polymorphism in the serotonin-transporter (5-HTTLPR) gene influences risk for relapse in schizophrenia and schizo-affective disorder.	
<i>Role: Co-P.I.</i>	

P30 MH 60575-05 (Kane) NIH/NIMH Course of Illness in Schizophrenia: Optimizing Outcomes The mission of the MHIRC is to provide high quality comprehensive infrastructure support for the conduct of intervention research aimed at improving the outcomes for individuals with schizophrenia. <i>Role: Director, Clinical Assessment Training Unit and Co-Director, Biostatistics and Study Management Unit</i>	02/18/00-01/31/05
U01 MH074356 (Malhotra) NIH/NIMH D-serine treatment of schizophrenia The goal of this study is to determine the tolerability and likely clinical responsivity to D-serine doses equal to and higher than those used in prior studies, and to examine the relationship between dose, plasma level and clinical response measures. <i>Role: P.I.</i>	09/30/05-08/31/10
The Stanley Medical Research Institute (Malhotra) Cognitive Enhancement in Bipolar Disorder The primary aim of this project is to assess the cognitive enhancing properties of the D2/D3 agonist pramipexole in a double-blind, placebo-controlled trial in euthymic bipolar disorder patients <i>Role: P.I.</i>	08/01/05-07/15/10
RESEARCH SUPPORT ONGOING 1R01 MH79800-01 (Malhotra) Genetic variation and functional disability in schizophrenia This project aims to identify the genetic variants that influence disability in schizophrenia using a 3-stage whole genome approach focused on the phenotypes of cognition and negative symptoms, which are key mediators of functional outcome in schizophrenia. <i>Role: P.I.</i>	04/06/07-03/31/12
I P50 MH080173 (Malhotra) Dissecting heterogeneity of treatment response of first episode schizophrenia (CIDAR) CIDAR will integrate the extensive clinical experience of ZHH researchers focused on the treatment of first episode schizophrenia, with the expertise of investigators utilizing neurocognitive, neuroimaging, and molecular genetic approaches to identify biological predictors of treatment response and functional outcome. <i>Role: P.I., Project 4; Co-Director, Special Scientific Procedures</i>	05/09/08-04/30/13
P30MH090590 (Kane) NIMH Early Phase Psychosis: Informing Treatment Decisions (ACISR) The mission of our center is to help establish and support core enabling infrastructure and a series of investigations which can inform critical diagnostic and individual treatment decisions regarding early phase psychotic disorders. Role: Director- Operations Core; Co-Director – Scientific Direction and Administrative Unit; Director – Biomarkers Unit	07/27/10-04/30/15

R13MH090652 (Malhotra) NIH The Ninth Annual Pharmacogenetics in Psychiatry Meeting Psychiatric pharmacogenetics is a rapidly evolving field of research that aims to identify genetic factors mediating the variation in psychotropic drug response. The introduction of pharmacogenetics into clinical practice would have significant impact on the care of mentally ill patients and the PIP meeting serves to provide a dedicated forum for the presentation and discussion of the latest data in this area of "personalized medicine". <i>Role: P.I.</i>	04/02/10-03/31/15
Cold Spring Harbor Laboratory (Malhotra) The Genetics of Early Onset Bipolar Disorder The primary aim of this project is to identify variability within the genome that may be associated with the risk of developing bipolar disorder prior to the age of 18 years utilizing both traditional genetic association strategies as well as novel genetic approaches to identify the DNA sequences that may confer the risk. <i>Role: P.I.</i>	12/1/06-11/30/10

PEER-REVIEWED PUBLICATIONS

1. Malhotra AK, Ross RL, Epstein S, Mann LS, Wise TN. Psychiatrist's compliance with nonpsychiatric consultations: Does compliance affect concordance. International Journal of Psychiatry and Medicine. 1991; 21:119-26.
2. Rosse RB, Malhotra AK, Kim SY, Deutsch ST. Visual fixation deficits and evidence of cognitive impairment in schizophrenia. Biological Psychiatry. 1992; 31:412-414.
3. Malhotra AK, Litman RE, Pickar D. Adverse effects of antipsychotic drugs. Drug Safety. 1993; 9:429-436.
4. Malow BA, Reese KB, Sato S, Bogard PJ, Malhotra AK et al. Spectrum of EEG abnormalities during clozapine treatment. Electroencephalography & Clinical Neurophysiology. 1994; 91:205-211.
5. Malhotra AK, Pinals DA, Weingartner H, Sirocco K, Missar CD, Pickar D, Breier A. NMDA receptor function and human cognition: The effects of ketamine in healthy volunteers. Neuropsychopharmacology. 1996; 14:301-307.
6. Malhotra AK, Goldman D, Buchanan R, Breier A, Pickar D. 5HT_{2A} receptor T102C polymorphism and schizophrenia. The Lancet. 1996; 347:1830-1831.
7. Malhotra AK, Pickar D: Biological predictors of clozapine response in schizophrenia. Psychiatric Annals. 1996; 26:390-394.
8. Malhotra AK, Goldman D, Ozaki N, Breier A, Buchanan R, Pickar D. Lack of association between polymorphisms in the 5HT_{2A} receptor gene and the antipsychotic response to clozapine. American Journal of Psychiatry. 1996; 153:1092-1094.
9. Malhotra AK, Virkkunen M, Rooney W, Eggert M, Linnoila M, Goldman D. The association between the dopamine D₄ receptor (*D4DR*) 16 amino acid repeat polymorphism and novelty seeking. Molecular

Psychiatry. 1996; 1:388-391.

10. Pickar D, Su TP, Weinberger D, Coppola R, Malhotra AK, Knable MB, Lee KS, Gorey J, Bartko JJ, Breier A, Hsiao J. Individual variation in D₂ dopamine receptor occupancy in clozapine-treated patients. American Journal of Psychiatry. 1996; 153:1571-1578.
11. Pinals DA, Malhotra AK, Missar CD, Pickar D, Breier A. Lack of gender differences in neuroleptic response in patients with schizophrenia. Schizophrenia Research. 1996; 22:215-222.
12. Malhotra AK, Goldman D, Ozaki N, Rooney W, Clifton A, Buchanan R, Breier A, Pickar D. Clozapine response and the 5HT_{2C} Cys23Ser polymorphism. NeuroReport. 1996; 7:2100-2102.
13. Jacobsen LK, Frazier JA, Malhotra AK, Karoum F, McKenna K, Gordon CT, Hamburger SD, Lenane MC, Pickar D, Potter WZ, Rapaport J. Cerebrospinal fluid monoamine metabolites in childhood onset schizophrenia. American Journal of Psychiatry. 1997; 154:69-74.
14. Breier A, Su TP, Saunders R, Carson RE, Kolachana BS, de Bartolomeis A, Weinberger DR, Weisenfeld N, Malhotra AK, Eckelman WC, Pickar D. Schizophrenia is associated with elevated amphetamine-induced synaptic dopamine concentrations: Evidence from a novel positron emission tomography method. Proceedings of the National Academy of Sciences. 1997; 94:2569-2574.
15. Breier A, Malhotra AK, Pinals DA, Weisenfeld N, Pickar D. Ketamine-induced psychosis is associated with focal activation of the prefrontal cortex in healthy volunteers. American Journal of Psychiatry. 1997; 154:805-811.
16. Malhotra AK, Pinals DA, Adler CM, Elman I, Clifton A, Pickar D, Breier A. Ketamine-induced exacerbation of psychotic symptoms and cognitive impairment in neuroleptic-free schizophrenics. Neuropsychopharmacology. 1997; 17:141-150.
17. Malhotra AK, Adler CM, Kennison SD, Elman I, Pickar D, Breier A. Clozapine blunts NMDA antagonist-induced psychosis: A study with ketamine. Biological Psychiatry. 1997; 42:664-668.
18. Pickar D, Malhotra AK, Rooney W, Breier A, Goldman D. Apolipoprotein E E4 allele and clinical phenotype in schizophrenia. The Lancet. 1997; 350:930-931.
19. Su TP, Malhotra AK, Hadd K, Breier A, Pickar D. D₂ receptor occupancy: A crossover comparison of risperidone with clozapine therapy in schizophrenic patients. Archives of General Psychiatry. 1997; 54:972-973.
20. Malhotra AK, Goldman D, Buchanan RW, Rooney W, Clifton A, Kosmidis MH, Breier A, Pickar D. The dopamine D₃ receptor (*DRD3*) Ser₉Gly polymorphism and schizophrenia: A haplotype relative risk study and association with clozapine response. Molecular Psychiatry. 1998; 3:72-75.
21. Pinals DA, Malhotra AK, Breier A, Pickar D. Informed consent in schizophrenia research. Psychiatric Services. 1998; 49:244.
22. Breier A, Adler CM, Weisenfeld N, Su TP, Elman I, Picken L, Malhotra AK, Pickar D. Effects of NMDA antagonism on striatal dopamine release in healthy subjects: Application of a novel PET approach. Synapse. 1998; 29:142-147.

23. Adler CM, Goldberg T, Malhotra AK, Pickar D, Breier A. Effects of ketamine on thought disorder, working memory and semantic memory in healthy volunteers. *Biological Psychiatry*. 1998; 43:811-816.
24. Malhotra AK, Breier A, Goldman D, Picken L, Pickar D. The apolipoprotein E E4 allele is associated with blunting of ketamine-induced psychosis in schizophrenia: A preliminary report. *Neuropsychopharmacology*. 1998; 19:445-448.
25. Breier A, Picken L, Adler CM, Elman I, Weisenfeld N, Malhotra AK, Pickar D. Dopamine D₂ receptor density and personal detachment in healthy subjects. *American Journal of Psychiatry*. 1998; 155:1440-1442.
26. Elman I, Adler CM, Malhotra AK, Bir C, Pickar D, Breier A. Effect of acute metabolic stress on pituitary-adrenal axis activation in patients with schizophrenia. *American Journal of Psychiatry*. 1998; 155:979-981.
27. Malhotra AK, Goldman D, Mazzanti C, Clifton A, Breier A, Pickar D. A functional serotonin transporter (5-HT₇) polymorphism is associated with psychosis in neuroleptic-free schizophrenics. *Molecular Psychiatry*. 1998; 3:328-332.
28. Breier A, Malhotra AK, Su TP, Pinals DA, Elman I, Adler CM, Lafargue RT, Clifton A, Pickar D. Clozapine and risperidone in chronic schizophrenia: Effects on symptomatology, parkinsonian side effects, and neuroendocrine response. *American Journal of Psychiatry*. 1999; 156:294-298.
29. Elman I, Goldstein DS, Eisenhofer G, Folio J, Malhotra AK, Adler CM, Pickar D, Breier A. Mechanism of peripheral noradrenergic stimulation by clozapine. *Neuropsychopharmacology*. 1999; 20:29-34.
30. Malhotra AK, Goldman D. Benefits and pitfalls encountered in psychiatric genetic association studies. *Biological Psychiatry*. 1999; 45:544-550.
31. Breier A, Su TP, Malhotra AK, Elman I, Adler CM, Weisenfeld NI, Pickar D. Effects of atypical antipsychotic drug treatment on amphetamine-induced striatal dopamine release in patients with psychotic disorders. *Neuropsychopharmacology*. 1999; 20:340-345.
32. Hu RJ, Malhotra AK, Pickar D. Predicting response to clozapine. *CNS Drugs*. 1999; 11:317-326.
33. Adler CM, Malhotra AK, Elman I, Goldberg T, Egan M, Pickar D, Breier A. Comparison of ketamine-induced thought disorder in healthy volunteers and thought disorder in schizophrenia. *American Journal of Psychiatry*. 1999; 156:1646-1649.
34. Kestler LP, Malhotra AK, Finch C, Adler C, Breier A. The relationship between dopamine D₂ receptor density and personality: Preliminary evidence from the NEO PI-R. *Neuropsychiatry, Neuropsychology and Behavioral Neurology*. 2000; 13:48-52.
35. Malhotra AK, Goldman D. The dopamine D₄ receptor gene and novelty seeking. *American Journal of Psychiatry*. 2000; 157:1885.
36. Cornblatt B, Malhotra AK. Impaired attention as an endophenotype for molecular genetic studies of schizophrenia. *Neuropsychiatric Genetics*. 2001; 105:11-15.
37. Malhotra AK. Pharmacogenomics and schizophrenia: clinical implications. *The Pharmacogenomics Journal*. 2001; 1:109-114.

38. Adler CM, Malhotra AK, Elman I, Pickar D, Breier A. Amphetamine-induced dopamine release and post-synaptic specific binding in patients with mild tardive dyskinesia. *Neuropsychopharmacology*. 2002; 26:295-300.
39. Malhotra AK, Kestler LJ, Mazzanti C, Bates JA, Goldberg T, Goldman D. A functional polymorphism in the *COMT* gene and performance on a test of prefrontal cognition. *American Journal of Psychiatry*. 2002; 159:652-654.
40. Malhotra AK, Bates JA, Jaeger J, Petrides G, Robinson DG, Bilder RM, Nassauer KW. No evidence for phenotypic variation between probands in case-control versus family-based association studies of schizophrenia. *Neuropsychiatric Genetics*. 2002; 114:509-511.
41. Bates JA, Malhotra AK. Genetic factors and neurocognitive traits. *CNS Spectrums*. 2002; 7:274-284.
42. Athanasiou MC, Malhotra AK, Xu C, Stephens JC. Discovery and utilization of haplotypes for pharmacogenetic studies of psychotropic drug response. *Psychiatric Genetics*. 2002; 12:89-96.
43. Bilder RM, Volavka J, Czobor P, Malhotra AK, Kennedy JL, Xingqun N, Goldman RS, Hoptman MJ, Sheitman B, Lindenmayer JP, Citrome L, McEvoy J, Kunz M, Chakos M, Cooper TB, Lieberman JA. Neurocognitive correlates of the *COMT* Val¹⁵⁸Met polymorphism in chronic schizophrenia. *Biological Psychiatry*. 2002; 52:701-707.
44. Szeszko PR, Goldberg E, Gunduz-Bruce H, Ashtari M, Robinson D, Malhotra AK, Lencz T, Bates J, Crandall DT, Kane JM, Bilder RM. Smaller anterior hippocampal formation volume in antipsychotic-naïve patients with first-episode schizophrenia. *American Journal of Psychiatry*. 2003; 160:2190-2197.
45. Correll CU, Malhotra AK, Kaushik, S, McMeniman M, Kane JM. Early prediction of antipsychotic response in schizophrenia. *American Journal of Psychiatry*. 2003; 160:2063-2065.
46. Szeszko PR, Vogel J, Ashtari M, Malhotra AK, Bates J, Kane JM, Bilder RM, Frevert T, Lim K. Sex differences in frontal lobe white matter microstructure: a DTI study. *Neuroreport*. 2003; 14:2469-73.
47. Malhotra AK, Murphy GM, Kennedy JL. Pharmacogenetics of psychotropic drug response. *American Journal of Psychiatry*. 2004; 161:780-796.
48. Malhotra AK. Candidate gene studies of antipsychotic drug efficacy and drug-induced weight gain. *Neurotoxicity Research*. 2004; 6: 51-6.
49. Correll CU, Malhotra AK. Pharmacogenetics of antipsychotic-induced weight gain. *Psychopharmacology*. 2004; 174:477-489.
50. Saito E, Correll C, Malhotra AK, Gallelli K, McMeniman M, Parikh UH, Kafantaris V. A prospective study of hyperprolactinemia in children and adolescents treated with atypical antipsychotic agents. *Journal of Child and Adolescent Psychopharmacology*. 2004; 14:350-358.
51. Smith GS, Lotrich FE, Malhotra AK, Lee A, Ma Y, Kramer E, Gregersen P, Eidelberg D, Pollock, BG. Effects of serotonin transporter promoter polymorphisms on serotonin function. *Neuropsychopharmacology*. 2004; 29:2226-2234.
52. Hodgkinson CA, Goldman D, Jaeger J, Persaud S, Kane JM, Lipsky RH, Malhotra AK. Disrupted in

- schizophrenia 1 (*D/SC1*): Association with schizophrenia, schizoaffective disorder, and bipolar disorder. American Journal of Human Genetics. 2004; 75:862-872.
53. Funke B, Finn CT, Plocik AM, Lake S, DeRosse P, Kane JM, Kucherlapati R, Malhotra AK. Association of the *DTNBP1* locus with schizophrenia in a U.S. population. American Journal of Human Genetics. 2004; 75: 891-898.
54. Szeszko PR, Ardekani BA, Ashtari M, Kumra S, Robinson DG, Sevy S, Gunduz-Bruce H, Malhotra AK, Kane JM, Bilder RM, Lim KO. White matter abnormalities in first-episode schizophrenia or schizoaffective disorder: a diffusion tensor imaging study. American Journal of Psychiatry. 2005; 162:602-605.
55. Szeszko PR, Ardekani BA, Ashtari M, Malhotra AK, Robinson DG, Bilder RM, Lim KO. White matter abnormalities in obsessive-compulsive disorder. Archives of General Psychiatry. 2005; 72:782-790.
56. Burdick KE, Hodgkinson CA, Szeszko PR, Lencz T, Ekholm JM, Kane JM, Goldman D, Malhotra AK. *D/SC1* and neurocognitive function in schizophrenia. Neuroreport. 2005; 16:1399-1402.
57. Szeszko PR, Lipsky R, Mentschel C, Robinson D, Gunduz-Bruce H, Sevy S, Ashtari M, Napolitano B, Bilder RM, Kane JM, Goldman D, Malhotra AK. Brain-derived neurotrophic factor Val₆₆Met polymorphism and volume of the hippocampal formation. Molecular Psychiatry 2005; 10:631-636.
58. Funke B, Malhotra AK, Finn CT, Plocik AM, Lake SL, Lencz T, DeRosse P, Kane JM, Kucherlapati R. *COMT* genetic variation confers risk for psychotic and affective disorders: a case control study. Behavioral and Brain Functions. 2005; 1:1-9.
59. Correll CU, Penzner JB, Parikh UH, Mughal T, Javed T, Carbon M, Malhotra AK. Recognizing and monitoring adverse events of second-generation antipsychotics in children and adolescents. Child and Adolescent Psychiatry Clinics North America. 2006; 15:177-206.
60. Lencz T, Robinson DG, Xu K, Ekholm J, Sevy S, Gunduz-Bruce H, Woerner MG, Kane JM, Goldman D, Malhotra AK. *DRD2* promoter region variation predicts sustained response to antipsychotic medication in first episode schizophrenia. American Journal of Psychiatry. 2006; 163:529-531.
61. DeRosse P, Funke B, Burdick KE, Lencz T, Ekholm JM, Kane JM, Malhotra AK. Dysbindin (*DTNBP1*) genotype and negative symptoms in schizophrenia. American Journal of Psychiatry. 2006; 163: 532-534.
62. Burdick KE, Goldberg JF, Harrow M, Faull RN, Malhotra AK. Neurocognition as a stable endophenotype in bipolar disorder and schizophrenia. Journal of Nervous and Mental Disease. 2006; 194: 255-260.
63. Burdick KE, Lencz T, Funke B, Finn CT, Szeszko PR, Kane JM, Kucherlapati R, Malhotra AK. Genetic variation in *DTNBP1* influences general cognitive ability. Human Molecular Genetics. 2006; 15:1563-8.
64. DeRosse P, Szeszko PR, Malhotra AK. Interferon-induced obsessive-compulsive disorder. General Hospital Psychiatry. 2006; 28:357-358.
65. Gurling H, Critchley H, Datta SR, McQuillin A, Blaveri E, Thirumalai S, Pimm J, Krasucki R, Kalsi G, Quested D, Lawrence J, Bass N, Choudhury K, Puri V, O'Daly O, Curtis D, Blackwood D, Muir W, Malhotra AK, Buchanan RW, Godd CD, Frackowiak RSJ, Dolan RJ. Genetic association and brain morphology studies and the chromosome 8p22 pericentriolar material 1 (*PCM1*) gene in susceptibility to schizophrenia. Archives of General Psychiatry. 2006; 63:1-11.

66. Malhotra AK, Burdick KE, Razi K, Bates JA, Sanders M, Kane JM. Ziprasidone-induced cognitive enhancement in schizophrenia: Specificity or pseudospecificity? *Schizophrenia Research*. 2006; 87:181-184.
67. DeRosse P, Burdick K, Lencz T, Goldberg TE, Malhotra AK. *COMT* genotype and manic symptoms in schizophrenia. *Schizophrenia Research*. 2006; 87:28-31.
68. Sevy S, Hassoun Y, Bechara A, Yechiam E, Napolitano B, Burdick KE, Delman H, Malhotra AK. Emotion-based decision making in healthy individuals: short term effects of reducing dopamine levels. *Psychopharmacology (Berl.)* 2006; 188:228-35.
69. Hodgkinson CA, Goldman D, Ducci F, DeRosse P, Caycedo DA, Newman ER, Kane JM, Roy A, Malhotra AK. The *FEZ1* gene shows no association to schizophrenia in Caucasian or African American populations. *Neuropsychopharmacology*. 2007; 32:190-6.
70. Burdick KE, Goldberg TE, Funke B, Bates, JA, Lencz T, Kucherlapati R, Malhotra AK. *DTNBP1* genotype influences cognitive decline in schizophrenia. *Schizophrenia Research*. 2007; 89:169-172.
71. Kelly DL, Kreyenbuhl J, Buchanan RW, Malhotra AK. Why not Clozapine? *Clinical Schizophrenia & Related Psychoses*. 2007:92-95.
72. Lencz T, Morgan TV, Athanasiou M, Dain B, Reed CR, Kane JM, Kucherlapati R, Malhotra AK. Converging evidence for a psuedoautosomal cytokine receptor gene locus in schizophrenia. *Molecular Psychiatry*. 2007;12: 572-580.
73. DeRosse P, Hodgkinson CA, Lencz T, Burdick KE, Kane JM, Goldman D, Malhotra AK. Disrupted in schizophrenia 1 (*D/SC 1*) genotype and positive symptoms in schizophrenia. *Biological Psychiatry*. 2007; 61:1208-1210.
74. Burdick KE, Funke B, Goldberg JF, Bates JA, Jaeger J, Kucherlapati R, Malhotra AK. *COMT* genotype increases risk for bipolar I disorder and influences neurocognitive performance. *Bipolar Disorders*. 2007; 9:370-6.
75. Szczek PR, Robinson DG, Sevy S, Kumra S, Rupp CI, Betensky JD, Lencz T, Ashtari M, Kane JM, Malhotra AK, Gunduz-Bruce H, Napolitano B, Bilder RM. Anterior cingulate grey matter deficits and cannabis use in first-episode schizophrenia. *British Journal of Psychiatry*. 2007; 190:230-6.
76. Funke BH, Lencz T, Finn CT, DeRosse P, Poznik GD, Plocik AM, Kane J, Rogus J, Malhotra AK, Kucherlapati R. Analysis of *TBX1* variation in patients with psychotic and affective disorders. *Molecular Medicine*. 2007; 13:407-14.
77. Goldberg TE, Goldman RS, Burdick KE, Malhotra AM, Lencz T, Patel RC, Woerner MG, Schooler NR, Kane JM and Robinson DR. Cognitive improvements after treatment with second generation antipsychotic medications in first episode schizophrenia: Is it a practice effect. *Archives of General Psychiatry*. 2007; 64:1115-22.
78. Burdick KE, Braga RJ, Goldberg JF, Malhotra AK. Cognitive dysfunction in bipolar disorder: future place in pharmacotherapy. *CNS Drugs*. 2007; 21:971-981.

79. Lencz T, Lambert C, DeRosse P, Burdick KE, Moran TV, Kane JM, Kucherlapati R, Malhotra AK. Runs of homozygosity reveal highly penetrant recessive loci in schizophrenia. *PNAS* 2007; 104:19942-19947.
80. Szeszko PR, Robinson DG, Ashtari M, Vogel J, Betensky JD, Sevy S, Ardekani BA, Lencz T, Malhotra AK, McCormack J, Miller R, Lim KO, Gunduz-Bruce H, Kane JM, Bilder RM. Clinical and neuropsychological correlates of white matter abnormalities in recent onset schizophrenia. *Neuropsychopharmacology*. 2008; 33:976-984.
81. Christian CJ, Lencz T, Robinson DG, Burdick KE, Ashtari M, Malhotra AK, Betensky JD, Szeszko PR. Gray matter structural alterations in obsessive-compulsive disorder: relationship to neuropsychological functions. *Psychiatry Research* 2008;164:123-31.
82. Szeszko PR, Hodgkinson CA, Robinson DG, DeRosse P, Bilder RM, Lencz T, Burdick KE, Napolitano B, Betensky JD, Kane JM, Goldman D, Malhotra AK. DISC1 is associated with prefrontal cortical gray matter and positive symptoms in schizophrenia. *Biological Psychology* 2008; 79:103-110.
83. Keefe RSE, Malhotra AK, Meltzer H, Kane JM, Buchanan RW, Murthy A, Sovel M, Li C, Goldman R. Efficacy and safety of donepezil in patients with schizophrenia or schizoaffective disorder: Significant placebo/practice effects in a 12-week, randomized, double-blind, placebo-controlled trial. *Neuropsychopharmacology* 2008; 33:1217-1228.
84. Betensky JD, Robinson DG, Gunduz-Bruce H, Sevy S, Lencz T, Kane JM, Malhotra AK, Miller R, McCormack J, Bilder RM, Szeszko PR. Patterns of stress in schizophrenia. *Psychiatry Research* 2008; 1:38-46.
85. Burdick KE, Robinson DG, Malhotra AK, Szeszko PR. Neurocognitive profile analysis in obsessive-compulsive disorder. *Journal of International Neuropsychological Society* 2008; 4:640-5.
85. Loftus ST, Garno JL, Jaeger J, Malhotra AK. Temperament and character dimensions in bipolar I disorder: A comparison to healthy controls. *Journal of Psychiatric Research* 2008; 42:1131-36.
86. Opgen-Rhein C, Lencz T, Burdick KE, Neuhaus AH, DeRosse P, Goldberg TE, Malhotra AK. Genetic variation in the DAOA gene complex: Impact on susceptibility for schizophrenia and on cognitive performance. *Schizophrenia Research* 2008; 103:169-77.
87. Burdick KE, Kamiya A, Hodgkinson CA, Lencz T, DeRosse P, Ishizuka K, Elashvili S, Arai H, Goldman D, Sawa A, Malhotra AK. Elucidating the relationship between DISC1, NDEL1, and NDE1 and the risk for schizophrenia: Evidence of epistasis and competitive binding. *Human Molecular Genetics* 2008; 17:2462-73.
88. DeRosse P, Lencz T, Burdick KE, Siris SG, Kane JM, Malhotra AK. The genetics of symptom-based phenotypes: Toward a molecular classification of schizophrenia. *Schizophrenia Bulletin* 2008; 34:1047-53.
89. Burdick KE, Gunawardane N, Goldberg JF, Halperin J, Garno JL, Malhotra AK. Attention and psychomotor functioning in bipolar depression. *Psychiatry Research* 2009; 166:192-200.
90. Goldberg TE, Burdick KE, McCormack J, Napolitano B, Patel RC, Sevy SM, Goldman R, Lencz T, Malhotra AK, Kane JM, Robinson DG. Lack of an inverse relationship between duration of untreated psychosis and cognitive function in first episode schizophrenia. *Schizophrenia Research* 2009;107:262-6.

91. Lencz T, Lipsky RH, DeRosse P, Burdick KE, Kane JM, Malhotra AK. Molecular differentiation of schizoaffective disorder from schizophrenia using BDNF haplotypes. *British Journal of Psychiatry* 2009; 194:313-8.
92. Mahon K, Wu J, Malhotra AK, Burdick KE, DeRosse, P, Ardekani BA, Szeszko PR. A voxel-based diffusion tensor imaging study of white matter in bipolar disorder. *Neuropsychopharmacology* 2009; 34:1590-1600.
93. Neuhaus AH, Goldberg TE, Hassoun Y, Bates JA, Nassauer KW, Sevy S, Opgen-Rhein C, Malhotra AK. Acute dopamine depletion with branched chain amino acids decreases auditory top-down event-related potentials in healthy subjects. *Schizophrenia Research* 2009; 111:167-73.
94. Volpi S, Potkin SG, Malhotra AK, Licamele L, Lavedan C. Applicability of a genetic signature for enhances iloperidone efficacy in the treatment of schizophrenia. *Journal of Clinical Psychiatry* 2009; 6:801-809.
95. Burdick KE, Gunawardane N, Woodberry K, Malhotra AK. The role of general intelligence as an intermediate phenotype for neuropsychiatric disorders. *Cognitive Neuropsychiatry* 2009; 4:299-311.
96. Goldberg TE, Kotov R, Lee AT, Gregersen PK, Lencz T, Bromet E, Malhotra AK. The serotonin transporter gene and disease modification in psychosis: evidence for systematic differences in allelic directionality at the 5-HTTLPR locus. *Schizophrenia Research* 2009; 111:103-8.
97. Correll CU, Manu P, Olshanskiy V, Napolitano B, Kane JM, Malhotra AK. Cardiometabolic risk of second-generation antipsychotic medications during first-time use in children and adolescents. *Journal of the American Medical Association* 2009; 302: 1765-73.
98. Narr KL, Szeszko PR, Lencz T, Woods RP, Hamilton LS, Phillips O, Robinson D, Burdick KE, DeRosse P, Kucherlapati R, Thompson PM, Toga AW, Malhotra AK, Bilder RM. DTNBP1 is associated with imaging phenotypes in schizophrenia. *Human Brain Mapping* 2009; 11:3783-94.
99. McCarthy S, Makarov V, Kirov G, Addington A, McClellan J, Yoon S, Perkins D, Dickel DE, Kusenda M, Krastoshevsky O, Krause V, Kumar RA, Grozeva D, Malhotra D, Walsh T, Zackai EH, Kaplan P, Ganesh J, Krantz ID, Spinner NB, Rocanova P, Bhandari A, Pavon K, Lakshmi B, Leotta A, Kendall J, Lee Y, Vacic V, Gary S, Iakoucheva L, Crow TJ, Christian SL, Lieberman J, Stroup S, Lehtimaki T, Puura K, Haldeman-Englert C, Pearl J, Goodell M, Willour VL, DeRosse P, Steele J, Kassem L, Wolff J, Chitkara N, McMahon F, Malhotra AK, Potash JB, Schulze T, Nothen MM, Cichon S, Rietschel M, Leibenluft E, Kustanovich V, Lajonchere CM, Sutcliffe JS, Skuse D, Gill M, Gallagher L, Mendell NR, Wellcome Trust Case Control Consortium, Craddock N, Owen MJ, O'Donovan MC, Shaikh TH, Susser E, DeLisi LE, Sullivan PF, Deutsch CK, Rapoport J, Levy DL, King MC, Sebat J. Microduplications of 16p11.2 are Associated with Schizophrenia. *Nature Genetics* 2009; 41:1223-7.
100. Penzner JB, Dudas M, Saito E, Olshankiy, Parikh UH, Kapoor S, Chekuri R, Gadaleta D, Avedon J, Sheridan EM, Randell J, Malhotra AK, Kane JM, Correll CU. Lack of effect of stimulant combination with second-generation antipsychotics on weight gain, metabolic changes, prolactin levels, and sedation in youth with clinically relevant aggression or oppositionality. *Journal of Child and Adolescent Psychopharmacology* 2009; 19:563-573.
101. Burdick KE, DeRosse P, Kane JM, Lencz T, Malhotra AK. Association of genetic variation in the *MET* proto-oncogene is associated with schizophrenia and general cognitive ability. *American Journal of Psychiatry* 2010; 167:436-443.

102. Zhang J, Lencz T, Malhotra AK. Dopamine D2 receptor genetic variation and clinical response to antipsychotic drug treatment: A meta-analysis. *American Journal of Psychiatry* 2010;167:763-72.
103. Derosse P, Kaplan A, Burdick KE, Lencz T, Malhotra AK. Cannabis use disorders in schizophrenia: Effects on cognition and symptoms. *Schizophrenia Research* 2010; 120:95-100.
104. Kantrowitz JT, Malhotra AK, Cornblatt B, Silipo G, Balla A, Suckow RF, D'Souza C, Saksa J, Woods SW, Javitt DC. High dose D-serine in the treatment of schizophrenia. *Schizophrenia Research* 2010; 121:125-30.
105. Lencz T, Robinson DG, Napolitano B, Sevy S, Kane JM, Goldman D, Malhotra AK. DRD2 promoter region variation predicts antipsychotic-induced weight gain in first episode schizophrenia. *Pharmacogenetics and Genomics* 2010; 20:569-72.
106. Lencz T, Szeszko PR, Derosse P, Burdick KE, Bromet EJ, Bilder RM, Malhotra AK. A Schizophrenia risk gene, ZNF804A, influences neuroanatomical and neurocognitive phenotypes. *Neuropsychopharmacology* 2010; 35:2284-91.
107. Rosenfeld JA, Malhotra AK, Lencz T. Novel multi-nucleotide polymorphisms in the human genome characterized by whole genome and exome sequencing. *Nucleic Acids Research* 2010; 38:6102-11
108. Williams HJ, Norton N, Dwyer S, Moskvina V, Nikolov I, Carroll L, Georgieva L, Williams NM, Morris DW, Quinn EM, Giegling I, Ikeda M, Wood J, Lencz T, Hultman C, Lichtenstein P, Thiselton D, Maher BS, Molecular Genetics of Schizophrenia Collaboration (MGS), International Schizophrenia Consortium (ISC), SGENE-plus, GROUP, Malhotra AK, Riely B, Kendler KS, Gill M, Sullivan P, Sklar P, Purcell S, Nimgaonkar VL, Kirov G, Holmans P, Covin A, Rujescu D, Craddock N, Owen MJ, O'Donovan MC. Fine mapping of ZNF804A and genome wide significant evidence for its involvement in schizophrenia and bipolar disorder. *Molecular Psychiatry*. 2010 Apr 6. [Epub ahead of print]
109. Shamsi S, Lau A, Lencz T, Burdick KE, Derosse P, Brenner R, Lindenmayer JP, Malhotra AK. Cognitive and symptomatic predictors of functional disability in schizophrenia. *Schizophrenia Research*. 2010 Sep 8. [Epub ahead of print]
110. Chen X, Lee G, Maher BS, Fanous AH, Chen J, Zhao Z, Guo A, van den Oord E, Sullivan PF, Shi J, Levinson DF, Gejman PV, Sander A, Duan J, Owen MJ, Craddock NJ, O'Donovan MC, Blackman J, Lewis D, Kirov GK, Qin W, Schwab S, Wildenauer D, Chowdari K, Nimgaonkar V, Straub R, Weinberger DR, O'Neil FA, Walsh D, Bronstein M, Darvasi A, Lencz T, Malhotra AK, Rujescu D, Giegling I, Werge T, Hansen T, Ingason A, Noethen MM, Rietshel M, Cichon S, Djurovic S, Andreassen OA, Cantor RM, Ophoff R, Corvin A, Morris DW, Gill M, Pato CN, Pato MT, Macedo A, Gurling HM, McQuillin A, Pimm J, Hultman C, Lichtenstein P, Sklar P, Purcell SM, Scolnick E, St Clair D, Blackwood DHR, the GROUP investigators, the International Schizophrenia Consortium, and Kendler KS. GWA study data-mining and independent replication identify cardiomyopathy associated 5 (CMYA5) as a risk gene for schizophrenia. *Molecular Psychiatry*. 2010 Sep 14. [Epub ahead of print]
111. Athanasiou MC, Detting M, Cascorbi I, Mosyagin I, Salisbury BA, Pierz KA, Zou W, Whalen H, Malhotra AK, Lencz T, Gerson SL, Kane J, Reed CR. Candidate gene analysis identifies a polymorphism in HLA-DQB1 associated with clozapine-induced agranulocytosis. *Journal of Clinical Psychiatry*. 2010 Sep 21. [Epub ahead of print]
112. Zhang J, Burdick KE, Lencz T, Malhotra AK. Meta-analysis of Genetic Variation in *DTNBP1* and General Cognitive Ability. *Biological Psychiatry*; In press.

113. Zhang J, Malhotra AK. Pharmacogenetics and Antipsychotics: Therapeutic Efficacy and Side Effects Prediction. *Expert Opinion on Drug Metabolism & Toxicology*; In press.

Book Chapters, Book Reviews and Invited Review Articles

1. Malhotra AK, Pinsky DA, Breier A. Future antipsychotic agents: clinical implications. In: Breier A (ed). *The New Pharmacotherapy of Schizophrenia*. American Psychiatric Press, Washington DC (1996).
2. Malhotra AK, Kane JM. Neuromuscular side effects of antipsychotic drugs. In: Kane, J (ed.) *Managing the Side Effects of Drug Therapy in Schizophrenia*. Science Press Ltd. London, UK (1999).
3. Malhotra AK. The genetics of schizophrenia. *Current Opinion in Psychiatry*. 2001; 14:3-7.
4. Kane JM, Gunduz H, Malhotra AK. Clozapine. In: Tran P & Bymaster F (Eds) *Current Issues in the Psychopharmacology of Schizophrenia*. Lippincott, William and Wilkins, Philadelphia PA (2001).
5. Kane JM, Malhotra AK. Clinical psychopharmacology of schizophrenia and psychotic disorders. In: Gabbard GO (ed.) *Treatments of Psychiatric Disorders*, Third Edition. American Psychiatric Press, Washington DC (2001).
6. Malhotra AK. From pharmacogenetics to pharmacogenomics of psychotropic drug response. In: Lerer B (ed.) *Pharmacogenetics of Psychotropic Drugs*. Cambridge University Press, United Kingdom (2002).
7. Malhotra AK, Kennedy JL, Collier DA, Rietschel M. Pharmacogenetics in psychiatry satellite meeting at the American College of Neuropsychopharmacology, 2000. *Neuropsychopharmacology*. 2002; 26:123-127.
8. Malhotra AK. Treatment of schizophrenia in the postgenomic era. *The Economics of Neuroscience*. 2002; 4:41-47.
9. Malhotra AK. Genetics and personality (Book Review) *JAMA* 2002; 288:1411-1412.
10. Kane JM, Malhotra AK. The future of pharmacotherapy for schizophrenia. *World Psychiatry*. 2003; 2:81-86.
11. Malhotra AK, Bates JA, Bilder BM. Is there a phenotypic difference between probands in case-control versus family-based association studies? *American Journal of Medical Genetics Part B (Neuropsychiatric Genetics)* 2003; 118B:27-28.
12. Malhotra AK. The relevance of pharmacogenetics to schizophrenia. *Current Opinion in Psychiatry*. 2003; 16:171-174.
13. Metz CM, Gregersen PK, Malhotra AK. Metabolism and biochemical effects of nicotine for primary care providers. In: Reichert VC, Talwar A, Fein AM (Eds.) *Treating tobacco dependence*. The Medical Clinics of North America, Philadelphia (2004).
14. Malhotra AK, Krystal JH. Molecular genetics and psychopharmacology. *Psychopharmacology*, 174:439-440, 2004.
15. Malhotra AK. Pharmacogenetics and neuropsychopharmacology. In: Ban TA, Healy D, Shorter E (Eds.) *Reflections on Twentieth-Century Psychopharmacology*. Collegium Internationale Neuro-

- Psychopharmacologicum, Hungary (2004).
16. Nnadi CU, Goldberg JF, Malhotra AK. Pharmacogenetics in mood disorder. *Current Opinion in Psychiatry*. 2005; 18:33-39.
 17. Hassoun Y, Razi K, Malhotra AK. The Third Annual Pharmacogenetics in Psychiatry Meeting, 2004. *Psychiatry Genetics*. 2005; 15:155-156.
 18. Nnadi CU, Goldberg JF, Malhotra AK. Genetics and psychopharmacology: prospects for individualized treatment. *Essential Psychopharmacology* 2005; 6:81-94.
 19. Correll CU, Penzner JB, Lencz T, Auther A, Smith CW, Malhotra AK, Kane JM, Cornblatt BA. Early identification and high-risk strategies for bipolar disorder. *Bipolar Disorders* 2007; 9:324-338.
 20. Nnadi CU, Malhotra AK. Individualizing antipsychotic drug therapy in schizophrenia: The promise of pharmacogenetics. *Current Psychiatry Reports* 2007; 9:313-318.
 21. Malhotra AK, Lencz T, Correll CU, Kane JM. Genomics and the future of pharmacotherapy in psychiatry. *International Review of Psychiatry*. 2007; 19:523-530.
 22. Malhotra AK, DeRosse P, Burdick KE. Towards a molecular classification of illness: effects of schizophrenia susceptibility loci on clinical symptoms and cognitive function. In: O'Donnell P (ed). *Cortical Deficits in Schizophrenia*. Springer Science + Business Media, LLC, New York (2007).
 22. Burdick KE, Malhotra AK. Pharmacogenetics of neurocognition in schizophrenia. In *The Genetics of Cognitive Neuroscience*. Ed Terry Goldberg, PhD and Daniel R Weinberger, MD. MIT Press.
 23. Nnadi CU, Malhotra AK. Clinical and pharmacogenetic studies of iloperidone. *Personalized Medicine* 2008; 5:367-375.
 24. Goldman D, Weinberger DR, Malhotra AK, Goldberg TE. The role of COMT Val158Met in cognition. *Biol Psychiatry*. 2009 Jan 1;65(1):e1-2; author reply e3-4. Epub 2008 Oct 5.
 25. Aitchison KJ, Serretti A, Goldman D, Curran S, Drago A, Malhotra AK. The Eighth Annual Pharmacogenetics in Psychiatry Meeting Report. *The Pharmacogenomics Journal* 2009; 9:358-61.
 26. Malhotra AK. The Pharmacogenetics of Depression: Enter the GWAS. *Am J Psychiatry* 2010; 167:493-5.
 27. Lencz T, Malhotra AK. Pharmacogenetics of Antipsychotic-induced Side Effects. *Dialogues in Clinical Neuroscience* 2009; 11:405-415.
 28. Aitchison KJ, Malhotra AK. The Ninth Annual Pharmacogenetics in Psychiatry Meeting Report. *Psychiatric Genetics*; In press.