

BIOGRAPHICAL SKETCH

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NAME Martin P. Paulus	POSITION TITLE Professor of Psychiatry in Residence		
eRA COMMONS USER NAME mpaulus			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Johannes Gutenberg University, Mainz	M.D.	1986	Medicine
Long Island Jewish Medical Center	Intern	1993	Medicine
University of California San Diego	Resident	1997	Psychiatry
University of California San Diego	Fellow	1997	Psychopharmacology
Johannes Gutenberg University, Mainz	M.D.	1986	Medicine

A. Positions and Honors.**Positions and Employment**

- 1982-1986 Medical Doctoral Thesis at the Institute of Pathology, Johannes Gutenberg University, Mainz, Germany. (magna cum laude)
- 1985-1986 Clinical Fellow at the Psychiatric Clinic of the Johannes Gutenberg University Mainz
- 1986-1987 Postdoctoral Fellow of the German Federation of Research (DFG).
- 1987-1990 Research Fellow, Laboratory of Biological Dynamics and Theoretical Medicine, Department of Psychiatry, U.C. San Diego
- 1990-1993 Assistant Research Psychobiologist, Department of Psychiatry, U.C. San Diego
- 1993-1994 Internship, Psychiatric Residency at Long Island Jewish Medical Center / Hillside Hospital
- 1994-1997 Residency in Psychiatry at Department of Psychiatry, U.C. San Diego
- 1996-1997 Fellowship in Psychopharmacology, Department of Psychiatry U.C. San Diego
- 1997-2000 Assistant Professor, Department of Psychiatry, U.C. San Diego
Veterans Affairs Medical Center, Mood Clinic, Director
- 1999- Assistant Chief, Department of Psychiatry, Veterans Affairs Medical Center
- 2000-2005 Associate Professor in Residence, Department of Psychiatry, U.C. San Diego
- 2005- Professor in Residence, Department of Psychiatry, U.C. San Diego

Other Professional Activities, Memberships, and Honors:

- 1990 Member Society for Neuroscience
- 1994 Member American Medical Association
- 1996 NIMH Outstanding Resident Award
- 1997 Lewis Judd Resident Research Award
- 1997 Society for Biological Psychiatry Outstanding Resident Award
- 2000 National Alliance for the Mentally Ill Young Investigator Award
- 2004 ZRG1-SBIB-H(40) NIH Committee – member
- 2005 Reviewer - NIDA RFA P-20 / NIDA Special Emphasis Panel
- 2006- Member - Risk, Prevention and Intervention for Addictions Study
- 2007 NIH Road Map Initiative - Reviewer

B. Selected peer-reviewed publications (in chronological order).

(Publications selected from 107 peer-reviewed publications)

Paulus MP, Gass SF, Mandell AJ. (1989): A realistic, minimal 'middle layer' for neural networks. *Physica D (Netherlands)* vol.40,135-155.

Paulus MP, Geyer MA, Gold LH, Mandell AJ. (1990): Application of entropy measures derived from the ergodic theory of dynamical systems to rat locomotor behavior. *Proc Natl Acad Sci U S A* 87:723-727.

Paulus MP, Geyer MA, Mandell AJ. (1991): Statistical mechanics of a neurobiological dynamical system: the spectrum of local entropies ($S(\alpha)$) applied to cocaine-perturbed behavior. *Physica A* vol.174,567-577.

- Paulus** MP, Geyer MA. (1991): A temporal and spatial scaling hypothesis for the behavioral effects of psychostimulants. *Psychopharmacology (Berl)* 104:6-16.
- Paulus** MP, Geyer MA. (1991): A scaling approach to find order parameters quantifying the effects of dopaminergic agents on unconditioned motor activity in rats. *Prog Neuropsychopharmacol Biol Psychiatry* 15:903-919.
- Geyer MA, **Paulus** MP. (1992): Multivariate and nonlinear approaches to characterizing drug effects on the locomotor and investigatory behavior of rats. *NIDA Res Monogr* 124:203-235.
- Paulus** MP, Geyer MA. (1992): The effects of MDMA and other methylenedioxy-substituted phenylalkylamines on the structure of rat locomotor activity. *Neuropsychopharmacology* 7:15-31.
- Weiss F, **Paulus** MP, Lorang MT, Koob GF. (1992): Increases in extracellular dopamine in the nucleus accumbens by cocaine are inversely related to basal levels: effects of acute and repeated administration. *J Neurosci* 12:4372-4380.
- Paulus** MP, Kadtko JB, Menkelo FV. (1993): Statistical mechanics of biological and other complex experimental time series: assessing geometrical and dynamical properties. *International Journal of Bifurcation and Chaos in Applied Sciences and vol.3*,717-727.
- Paulus** MP, Geyer MA. (1993): Three independent factors characterize spontaneous rat motor activity. *Behav Brain Res* 53:11-20.
- Paulus** MP, Geyer MA. (1993): Quantitative assessment of the microstructure of rat behavior: I, f(d), the extension of the scaling hypothesis. *Psychopharmacology (Berl)* 113:177-186.
- Paulus** MP, Callaway CW, Geyer MA. (1993): Quantitative assessment of the microstructure of rat behavior: II. Distinctive effects of dopamine releasers and uptake inhibitors. *Psychopharmacology (Berl)* 113:187-198.
- Paulus** MP, Geyer MA, Braff DL. (1994): The assessment of sequential response organization in schizophrenic and control subjects. *Prog Neuropsychopharmacol Biol Psychiatry* 18:1169-1185.
- Weinger MB, Herndon OW, Zornow MH, **Paulus** MP, Gaba DM, Dallen LT. (1994): An objective methodology for task analysis and workload assessment in anesthesia providers. *Anesthesiology* 80:77-92.
- Paulus** MP, Geyer MA, Braff DL. (1996): Use of methods from chaos theory to quantify a fundamental dysfunction in the behavioral organization of schizophrenic patients. *Am J Psychiatry* 153:714-717.
- Paulus** M.P. and M.A.Geyer. Assessing the organization of motor behavior: New approaches based on the behavior of complex physical systems. In: *Measuring Movement and Locomotion: From Invertebrates to Humans*, edited by K.P.Ossenkopp, M.Kavaliars, and P.R.Sanberg. R.G. Landes Co, 1996, p. 273-295.
- Paulus** M.P. and G.S.M.A.**Paulus** MP. Models and predictability of biological systems
A realistic, minimal 'middle layer' for neural networks. In: *Models and predictability of biological systems*, edited by Kravtsov YA and Kadtko JB. Karlsruhe: Springer-Verlag, 1996, p. 153-168.
- Paulus** MP. (1997): Long-range interactions in sequences of human behavior. *Physical Review E* vol.55,3249-3256.
- Paulus** MP, Geyer MA. (1997): Environment and unconditioned motor behavior: Influences of drugs and environmental geometry on behavioral organization in rats. *Psychobiology* 25:327-337.
- Judd LL, Kessler RC, **Paulus** MP, Zeller PV, Wittchen HU, Kunovac JL. (1998): Comorbidity as a fundamental feature of generalized anxiety disorders: results from the National Comorbidity Study (NCS). *Acta Psychiatr Scand Suppl* 393:6-11.
- Judd LL, Akiskal HS, Maser JD, Zeller PJ, Endicott J, Coryell W, **Paulus** MP, Kunovac JL, Leon AC, Mueller TI, Rice JA, Keller MB. (1998): A prospective 12-year study of subsyndromal and syndromal depressive symptoms in unipolar major depressive disorders. *Arch Gen Psychiatry* 55:694-700.
- Judd LL, Akiskal HS, Maser JD, Zeller PJ, Endicott J, Coryell W, **Paulus** MP, Kunovac JL, Leon AC, Mueller TI, Rice JA, Keller MB. (1998): Major depressive disorder: a prospective study of residual subthreshold depressive symptoms as predictor of rapid relapse. *J Affect Disord* 50:97-108.
- Krebs-Thomson K, Lehmann-Masten V, Naiem S, **Paulus** MP, Geyer MA. (1998): Modulation of phencyclidine-induced changes in locomotor activity and patterns in rats by serotonin. *Eur J Pharmacol* 343:135-143.
- Krebs-Thomson K, **Paulus** MP, Geyer MA. (1998): Effects of hallucinogens on locomotor and investigatory activity and patterns: influence of 5-HT_{2A} and 5-HT_{2C} receptors. *Neuropsychopharmacology* 18:339-351.
- Paulus** MP, Bakshi VP, Geyer MA. (1998): Isolation rearing affects sequential organization of motor behavior in post-pubertal but not pre-pubertal Lister and Sprague-Dawley rats. *Behavioural Brain Research* 94:271-280.

- Paulus** MP, Geyer MA, Sternberg E. (1998): Differential movement patterns but not amount of activity in unconditioned motor behavior of Fischer, Lewis, and Sprague-Dawley rats. *Physiology & Behavior* 65:601-606.
- Dulawa SC, Grandy DK, Low MJ, **Paulus** MP, Geyer MA. (1999): Dopamine D4 receptor-knock-Out mice exhibit reduced exploration of novel stimuli. *J Neurosci* 19:9550-9556.
- Judd LL, **Paulus** MP, Zeller P. (1999): The role of residual subthreshold depressive symptoms in early episode relapse in unipolar major depressive disorder [letter]. *Arch Gen Psychiatry* 56:764-765.
- Paulus** MP, Geyer MA, Braff DL. (1999): Long-range correlations in choice sequences of schizophrenic patients. *Schizophr Res* 35:69-75.
- Paulus** MP, Perry W, Braff DL. (1999): The nonlinear, complex sequential organization of behavior in schizophrenic patients: neurocognitive strategies and clinical correlations [In Process Citation]. *Biol Psychiatry* 46:662-670.
- Paulus** MP, Dulawa SC, Ralph RJ, Mark AG. (1999): Behavioral organization is independent of locomotor activity in 129 and C57 mouse strains. *Brain Res* 835:27-36.
- Paulus** M.P. and R.L.Bilder. Complex Dysregulation In Sequential Organization And Dysregulation In Dopaminergic Modulation In First Episode Schizophrenia Patients. In: *Nonlinear Dynamics and Brain Functioning*, edited by N.Pradhan, L.Screenivasan, and P.E.Rapp. Nova Science Publishers, Inc.; 1999.
- Judd LL, **Paulus** MJ, Schettler PJ, Akiskal HS, Endicott J, Leon AC, Maser JD, Mueller T, Solomon DA, Keller MB. (2000): Does incomplete recovery from first lifetime major depressive episode herald a chronic course of illness? *Am J Psychiatry* 157:1501-1504.
- Judd LL, Akiskal HS, Zeller PJ, **Paulus** M, Leon AC, Maser JD, Endicott J, Coryell W, Kunovac JL, Mueller TI, Rice JP, Keller MB. (2000): Psychosocial disability during the long-term course of unipolar major depressive disorder [see comments]. *Arch Gen Psychiatry* 2000 Apr ;57 (4):375 -80 57:375-380.
- Paulus** MP, Varty GB, Geyer MA. (2000): The genetic liability to stress and postweaning isolation have a competitive influence on behavioral organization in rats [In Process Citation]. *Physiol Behav* 68:389-394.
- Varty GB, **Paulus** MP, Braff DL, Geyer MA. (2000): Environmental enrichment and isolation rearing in the rat: effects on locomotor behavior and startle response plasticity. *Biol Psychiatry* 47:864-873.
- Paulus** MP, Rapaport MH, Braff DL. (2001): Trait contributions of complex dysregulated behavioral organization in schizophrenic patients. *Biol Psychiatry* 49:71-77.
- Paulus** MP, Hozack N, Zauscher B, McDowell JE, Frank L, Brown GG, Braff DL. (2001): Prefrontal, Parietal, and Temporal Cortex Networks Underlie Decision-Making in the Presence of Uncertainty. *Neuroimage* 13:91-100.
- Ralph RJ, **Paulus** MP, Fumagalli F, Caron MG, Geyer MA. (2001): Prepulse Inhibition Deficits and Perseverative Motor Patterns in Dopamine Transporter Knock-Out Mice: Differential Effects of D1 and D2 Receptor Antagonists. *J Neurosci* 21:305-313.
- Ralph RJ, **Paulus** MP, Geyer MA. (2001): Strain-specific effects of amphetamine on prepulse inhibition and patterns of locomotor behavior in mice. *J Pharmacol Exp Ther* 298:148-155.
- Feinstein JS, Goldin PR, Stein MB, Brown GG, **Paulus** MP. (2002): Habituation of attentional networks during emotion processing. *Neuroreport* 13:1255-1258.
- McDowell JE, Brown GG, **Paulus** M, Martinez A, Stewart SE, Dubowitz DJ, Braff DL. (2002): Neural correlates of refixation saccades and antisaccades in normal and schizophrenia subjects. *Biol Psychiatry* 51:216-223.
- Paulus** MP, Hozack N, Frank L, Brown GG. (2002): Error Rate and Outcome Predictability Affect Neural Activation in Prefrontal Cortex and Anterior Cingulate during Decision-Making. *Neuroimage* 15:836-846.
- Paulus** MP, Hozack NE, Zauscher BE, Frank L, Brown GG, McDowell J, Braff DL . (2002): Parietal dysfunction is associated with increased outcome-related decision-making in schizophrenia patients. *Biol Psychiatry* 51:995-1004.
- Paulus** MP, Hozack NE, Zauscher BE, Frank L, Brown GG, Braff DL, Schuckit MA. (2002): Behavioral and Functional Neuroimaging Evidence for Prefrontal Dysfunction in Methamphetamine-Dependent Subjects. *Neuropsychopharmacology* 26:53-63.
- Eyler Zorrilla LT, Jeste DV, **Paulus** M, Brown GG. (2003): Functional abnormalities of medial temporal cortex during novel picture learning among patients with chronic schizophrenia. *Schizophr Res* 59:187-198.
- Ludewig K, **Paulus** MP, Vollenweider FX. (2003): Behavioural dysregulation of decision-making in deficit but not nondeficit schizophrenia patients. *Psychiatry Res* 119:293-306.

- Ludewig S, **Paulus** MP, Ludewig K, Vollenweider FX. (2003): Decision-making strategies by panic disorder subjects are more sensitive to errors. *J Affect Disord* 76:183-189.
- Paulus** MP, Rogalsky C, Simmons A, Feinstein JS, Stein MB. (2003): Increased activation in the right insula during risk-taking decision making is related to harm avoidance and neuroticism. *Neuroimage* 19:1439-1448.
- Paulus** MP, Frank L, Brown GG, Braff DL. (2003): Schizophrenia Subjects Show Intact Success-Related Neural Activation but Impaired Uncertainty Processing during Decision-Making. *Neuropsychopharmacology* 28:795-806.
- Paulus** MP, Frank LR. (2003): Ventromedial prefrontal cortex activation is critical for preference judgments. *Neuroreport* 14:1311-1315.
- Paulus** MP, Braff DL. (2003): Chaos and schizophrenia: does the method fit the madness? *Biol Psychiatry* 53:3-11.
- Paulus** MP, Hozack N, Frank L, Brown GG, Schuckit MA. (2003): Decision making by methamphetamine-dependent subjects is associated with error-rate-independent decrease in prefrontal and parietal activation. *Biol Psychiatry* 53:65-74.
- Powell SB, **Paulus** MP, Hartman DS, Godel T, Geyer MA. (2003): RO-10-5824 is a selective dopamine D4 receptor agonist that increases novel object exploration in C57 mice. *Neuropharmacology* 44:473-481.
- Ralph-Williams RJ, **Paulus** MP, Zhuang X, Hen R, Geyer MA. (2003): Valproate attenuates hyperactive and perseverative behaviors in mutant mice with a dysregulated dopamine system. *Biol Psychiatry* 53:352-359.
- Tapert SF, Cheung EH, Brown GG, Frank LR, **Paulus** MP, Schweinsburg AD, Meloy MJ, Brown SA. (2003): Neural response to alcohol stimuli in adolescents with alcohol use disorder. *Arch Gen Psychiatry* 60:727-735.
- Verney SP, Brown GG, Frank L, **Paulus** MP. (2003): Error-rate-related caudate and parietal cortex activation during decision making. *Neuroreport* 14:923-928.
- Barr AM, Lehmann-Masten V, **Paulus** M, Gainetdinov RR, Caron MG, Geyer MA. (2004): The selective serotonin-2A receptor antagonist M100907 reverses behavioral deficits in dopamine transporter knockout mice. *Neuropsychopharmacology* 29:221-228.
- Feinstein JS, Stein MB, Castillo GN, **Paulus** MP. (2004): From sensory processes to conscious perception. *Conscious Cogn* 13:323-335.
- Matthews SC, Simmons AN, Lane SD, **Paulus** MP. (2004): Selective activation of the nucleus accumbens during risk-taking decision making. *Neuroreport* 15:2123-2127.
- Matthews SC, **Paulus** MP, Dimsdale JE. (2004): Contribution of functional neuroimaging to understanding neuropsychiatric side effects of interferon in hepatitis C. *Psychosomatics* 45:281-286.
- Matthews SC, **Paulus** MP, Simmons AN, Nelesen RA, Dimsdale JE. (2004): Functional subdivisions within anterior cingulate cortex and their relationship to autonomic nervous system function. *Neuroimage* 22:1151-1156.
- Minassian A, **Paulus** MP, Perry W. (2004): Increased sensitivity to error during decision-making in bipolar disorder patients with acute mania. *J Affect Disord* 82:203-208.
- Ogden CA, Rich ME, Schork NJ, **Paulus** MP, Geyer MA, Lohr JB, Kuczenski R, Niculescu AB. (2004): Candidate genes, pathways and mechanisms for bipolar (manic-depressive) and related disorders: an expanded convergent functional genomics approach. *Mol Psychiatry* 9:1007-1029.
- Paulus** MP, Feinstein JS, Simmons A, Stein MB. (2004): Anterior cingulate activation in high trait anxious subjects is related to altered error processing during decision making. *Biol Psychiatry* 55:1179-1187.
- Paulus** MP, Feinstein JS, Tapert SF, Liu TT. (2004): Trend detection via temporal difference model predicts inferior prefrontal cortex activation during acquisition of advantageous action selection. *Neuroimage* 21:733-743.
- Powell SB, Lehmann-Masten VD, **Paulus** MP, Gainetdinov RR, Caron MG, Geyer MA. (2004): MDMA "ecstasy" alters hyperactive and perseverative behaviors in dopamine transporter knockout mice. *Psychopharmacology (Berl)*.
- Powell SB, Geyer MA, Gallagher D, **Paulus** MP. (2004): The balance between approach and avoidance behaviors in a novel object exploration paradigm in mice. *Behav Brain Res* 152:341-349.
- Schweinsburg AD, **Paulus** MP, Barlett VC, Killeen LA, Caldwell LC, Pulido C, Brown SA, Tapert SF. (2004): An fMRI study of response inhibition in youths with a family history of alcoholism. *Ann N Y Acad Sci* 1021:391-394.
- Simmons A, Matthews SC, Stein MB, **Paulus** MP. (2004): Anticipation of emotionally aversive visual stimuli activates right insula. *Neuroreport* 15:2261-2265.

- Tapert SF, Pulido C, **Paulus** MP, Schuckit MA, Burke C. (2004): Level of response to alcohol and brain response during visual working memory. *J Stud Alcohol* 65:692-700.
- Anderson KG, Schweinsburg A, **Paulus** MP, Brown SA, Tapert S. (2005): Examining personality and alcohol expectancies using functional magnetic resonance imaging (fMRI) with adolescents. *J Stud Alcohol* 66:323-331.
- Ernst M, **Paulus** MP. (2005): Neurobiology of Decision Making: A Selective Review from a Neurocognitive and Clinical Perspective. *Biol Psychiatry* 58:596-604.
- Filoteo JV, Maddox WT, Simmons AN, Ing AD, Cagigas XE, Matthews S, **Paulus** MP. (2005): Cortical and subcortical brain regions involved in rule-based category learning. *Neuroreport* 16:111-115.
- Leland DS, **Paulus** MP. (2005): Increased risk-taking decision-making but not altered response to punishment in stimulant-using young adults. *Drug Alcohol Depend* 78:83-90.
- Matthews SC, Simmons AN, Arce E, **Paulus** MP. (2005): Dissociation of inhibition from error processing using a parametric inhibitory task during functional magnetic resonance imaging. *Neuroreport* 16:755-760.
- Paulus** MP, Feinstein JS, Castillo G, Simmons AN, Stein MB. (2005): Dose-dependent decrease of activation in bilateral amygdala and insula by Lorazepam during emotion processing. *Arch Gen Psychiatry* 62:282-288.
- Paulus** MP, Feinstein JS, Leland D, Simmons AN. (2005): Superior temporal gyrus and insula provide response and outcome-dependent information during assessment and action selection in a decision-making situation. *Neuroimage* 25:607-615.
- Paulus** MP, Tapert SF, Schuckit MA. (2005): Neural activation patterns of methamphetamine-dependent subjects during decision making predict relapse. *Arch Gen Psychiatry* 62:761-768.
- Paulus** MP. (2005): Neurobiology of decision-making: quo vadis? *Brain Res Cogn Brain Res* 23:2-10.
- Reiss JP, Campbell DW, Leslie WD, **Paulus** MP, Stroman PW, Polimeni JO, Malcolmson KA, Sareen J. (2005): The role of the striatum in implicit learning: a functional magnetic resonance imaging study. *Neuroreport* 16:1291-1295.
- Simmons A, Stein MB, Matthews SC, Feinstein JS, **Paulus** MP. (2005): Affective ambiguity for a group recruits ventromedial prefrontal cortex. *Neuroimage* 29:655-661.
- Vollenweider FX, Liechti ME, **Paulus** MP. (2005): MDMA affects both error-rate dependent and independent aspects of decision-making in a two-choice prediction task. *J Psychopharmacol* 19:366-374.
- Arce E, Miller DA, Feinstein JS, Stein MB, **Paulus** MP. (2006): Lorazepam dose-dependently decreases risk-taking related activation in limbic areas. *Psychopharmacology (Berl)* .
- Arce E, Leland DS, Miller DA, Simmons AN, Winternheimer KC, **Paulus** MP. (2006): Individuals with schizophrenia present hypo- and hyperactivation during implicit cueing in an inhibitory task. *Neuroimage* 32:704-713.
- Campbell DW, Sareen J, **Paulus** MP, Goldin PR, Stein MB, Reiss JP. (2006): Time-Varying Amygdala Response to Emotional Faces in Generalized Social Phobia. *Biol Psychiatry* .
- Drummond SP, **Paulus** MP, Tapert SF. (2006): Effects of two nights sleep deprivation and two nights recovery sleep on response inhibition. *J Sleep Res* 15:261-265.
- Feinstein JS, Stein MB, **Paulus** MP. (2006): Anterior insula reactivity during certain decisions is associated with neuroticism. *Social Cognitive and Affective Neuroscience* 6.
- Leland DS, Arce E, Feinstein JS, **Paulus** MP. (2006): Young adult stimulant users' increased striatal activation during uncertainty is related to impulsivity. *Neuroimage* .
- Minassian A, **Paulus** M, Lincoln A, Perry W. (2006): Adults with Autism Show Increased Sensitivity to Outcomes at Low Error Rates During Decision-Making. *J Autism Dev Disord* .
- Paulus** MP, Stein MB. (2006): An Insular View of Anxiety. *Biol Psychiatry* 60:383-387.
- Paulus** MP, Frank LR. (2006): Anterior cingulate activity modulates nonlinear decision weight function of uncertain prospects. *Neuroimage* 30:668-677.
- Paulus** MP, Tapert SF, Pulido C, Schuckit MA. (2006): Alcohol Attenuates Load-related Activation During a Working Memory Task: Relation to Level of Response to Alcohol. *Alcohol Clin Exp Res* 30:1363-1371.
- Reiss JP, Campbell DW, Leslie WD, **Paulus** MP, Ryner LN, Polimeni JO, Foot BJ, Sareen J. (2006): Deficit in schizophrenia to recruit the striatum in implicit learning: A functional magnetic resonance imaging investigation. *Schizophr Res* 87:127-137.
- Risbrough VB, Masten VL, Caldwell S, **Paulus** MP, Low MJ, Geyer MA. (2006): Differential Contributions of Dopamine D(1), D(2), and D(3) Receptors to MDMA-Induced Effects on Locomotor Behavior Patterns in Mice. *Neuropsychopharmacology* .

Principal Investigator/Program Director (Last, First, Middle):

- Sareen J, Campbell DW, Leslie WD, Malisza KL, Stein MB, **Paulus** MP, Kravetsky LB, Kjernisted KD, Walker JR, Reiss JP. (2006): Striatal Function in Generalized Social Phobia: A Functional Magnetic Resonance Imaging Study. *Biol Psychiatry* .
- Sareen J, Chartier M, **Paulus** MP, Stein MB. (2006): Illicit drug use and anxiety disorders: Findings from two community surveys. *Psychiatry Res* 142:11-17.
- Simmons A, Strigo I, Matthews SC, **Paulus** MP, Stein MB. (2006): Anticipation of aversive visual stimuli is associated with increased insula activation in anxiety-prone subjects. *Biol Psychiatry* 60:402-409.
- Aron JL, **Paulus** MP. (2007): Location, location: using functional magnetic resonance imaging to pinpoint brain differences relevant to stimulant use. *Addiction* 102 Suppl 1:33-43.
- Fryer SL, Tapert SF, Mattson SN, **Paulus** MP, Spadoni AD, Riley EP. (2007): Prenatal Alcohol Exposure Affects Frontal-Striatal BOLD Response During Inhibitory Control. *Alcohol Clin Exp Res* .
- Paulus** MP, Stein MB. (2007): Role of functional magnetic resonance imaging in drug discovery. *Neuropsychol Rev* 17:179-188.
- Stein MB, Simmons AN, Feinstein JS, **Paulus** MP. (2007): Increased amygdala and insula activation during emotion processing in anxiety-prone subjects. *Am J Psychiatry* 164:318-327.
- Tapert SF, Schweinsburg AD, Drummond SP, **Paulus** MP, Brown SA, Yang TT, Frank LR. (2007): Functional MRI of inhibitory processing in abstinent adolescent marijuana users. *Psychopharmacology (Berl)* .

C. Research Support**Ongoing Research Support**

R01 DA016663-02 NIH/NIMH "Neurobiology of Transition to Stimulant Dependence" This project aims to determine whether changes in neural substrate activation patterns during decision-making task can be used to predict who will develop stimulant dependence.	(Paulus, Martin)	04/01/04 - 03/31/09	22.5%
R01 DA018307-01 NIH/NIMH "Stimulant Dependence: Neural Mechanisms of Relapse" To determine the neural substrates that underlies the prediction of relapse in stimulant users.s that underlies the prediction of relapse in stimulant users.	(Paulus, Martin)	10/01/04 - 09/30/09	19%
VA Merit Award NIH/NIMH "Neural Substrates of Behavioral Organization" To determine the neural substrates that underlie decision-making behavior and its dysfunction in schizophrenia patients.	(Paulus, Martin)	10/01/04 - 09/30/09	
GlaxoSmithKline UCSD# 2004-1429 "A Double Blind, randomized, placebo-controlled, parallel group, fMRI study comparing emotion-induced brain activation patterns before and after 10 weeks of treatment with placebo, active comparator (Paxil 20mg) and one NK1 antagonist (GW597599B, 15mg) in subjects affected by social phobia." The aim of this study is to use fMRI to investigate the effects of a novel NK1 receptor antagonist (and a standard treatment, an SSRI) on brain activation patterns induced by specific cognitive-emotional tasks in anxious subjects.	(Paulus, Martin)	01/01/04 – 12/31/05	5%
R01 MH65413-02 NIH/NIMH "Neural Substrates of Decision-Making in Anxiety" To uncover the neural substrates of decision making that are relevant to the trait anxiety and to anxiety disorders.	(Stein, Murray)	07/01/03 - 05/31/07	5%
1 R01 MH071916-01 NIH/NIMH "Inhibitory Deficits in Mania and Hyperdopaminergic Mice" The primary focus of this translational project is to assess deficits in three domains of inhibition in manic BD patients and in parallel animal models based on pharmacological challenges and gene engineering technology.	(Perry, William)	07/1/04 - 06/30/09	5%
5 R01 MH61326-05 NIH/NIMH "Startle Gating and Locomotion in D-2 Family Knockout Mice" This project studies gene knockout mice lacking either D2, D3 or D4 receptors to understand the function of these genes on locomotor behavior and startle response measures.	(Geyer, Mark)	06/01/00 - 05/31/06	2%
1R21MH070625	(Buracas, Giedrius)	03/01/2006-2/28/2008	5%

Principal Investigator/Program Director (Last, First, Middle):

NIH/NIMH

“Neuromodulation of BOLD fMRI Signal during Cognitive Tasks”

This project is aimed to examine the effects of scopolamine on brain functioning using fMRI.

1 R01 MH075792-01 (Stein, Murray B) 07/01/2006-6/30/2009 10%

NIH/NIMH

“PharmacofMRI to Identify New Anxiolytics/A Human Bioassay”

This project is aimed to develop new assays for probing the efficacy of anxiety treatments using functional magnetic resonance imaging.

1 R01 AA015760-01 (Schuckit, Marc A) 07/01/2006-6/30/2011 10%

NIH/NIMH

“Level of Response to Alcohol and Brain Functioning”

To determine the neural substrates that underly the different subjective levels of response to alcohol.

COMPLETED within the last 3 years:

5 M01 RR00827-30 (Holmes, Edward) 12/01/99 - 07/01/05 5%

NIH/NIMH

“General Clinical Research Center”

This project assesses the characteristics of fMRI imaging data base management for patients with schizophrenia across 11 different sites.

5 R21 DA14200-03 (Paulus, Martin) 04/01/01 - 03/31/05 2%

NIH/NIDA

“MDMA & Amphetamine – Behavioral Organization in Mice”

This project studies the effects of acute administration of MDMA and amphetamine on unconditioned locomotor behavior in different strains of mice in order to develop screening procedures for potential drugs of abuse.

5 R21 DA13186-03 (Paulus, Martin) 04/01/01 - 03/31/05 2%

NIH/NIDA

“Neuroimaging of Decision Making in Stimulant Addiction”

This project studies the neural substrates underlying the decision-making abnormalities in methamphetamine dependent subjects using functional magnetic resonance imaging.