

BIOGRAPHICAL SKETCH

NAME Jordan W. Smoller, MD, ScD		POSITION TITLE Associate Professor of Psychiatry	
eRA COMMONS USER NAME SMOLLER			
EDUCATION/TRAINING (<i>Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.</i>)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Harvard University, Cambridge, MA	A.B. <i>summa cum laude</i>	1983	Psychology & Social Relations
Harvard Medical School, Boston, MA	M.D. <i>cum laude</i>	1992	Medicine
Harvard School of Public Health, Boston MA	M.S.	1997	Epidemiology
Harvard School of Public Health, Boston, MA	Sc.D.	2001	Epidemiology

A. Positions and Employment.

- 1990-1991 Pew Fellowship, Laboratory of Human Behavior and Metabolism, Rockefeller University
1992-1993 Intern in Medicine, Brigham and Women's Hospital, Boston, MA
1993-1996 Resident in Adult Psychiatry, McLean Hospital, Belmont, MA
1996-1999 Fellow, NIMH Training Program in Psychiatric Epidemiology and Biostatistics, Harvard School of Public Health, Boston, MA
1996-1999 Instructor in Psychiatry, Harvard Medical School, Boston, MA
1998- Director, Psychiatric Genetics Program in Mood and Anxiety Disorders, MGH
1999-2000 Postdoctoral Fellow, NIMH Training Program in Psychiatric Genetics
1999- Founding Member, Mood and Anxiety Disorders Institute, Massachusetts General Hospital
2000- Assistant Professor of Psychiatry, Harvard Medical School, Boston, MA
2000-2002 Genetics Advisory Panel, Partners Healthcare Program in Human Genetics
2002- Faculty, Psychiatric and Neurodevelopmental Genetics Unit, MGH
2004- Faculty, Center for Human Genetic Research, MGH
2005- Steering Committee, Psychiatric Disease Initiative, Broad Institute of Harvard and MIT
2005- Co-Director, Genetics and Genomics Unit, Clinical Research Program, MGH
2006- Associate Professor of Psychiatry, Harvard Medical School, Boston, MA
2006- Assistant Vice Chair, Department of Psychiatry, Massachusetts General Hospital
2007- Associate Editor, American Journal of Medical Genetics B Neuropsychiatric Genetics
2007- Senior Scientist, Stanley Center for Psychiatric Research, Broad Institute
2007- Associate Professor in the Department of Epidemiology, Harvard School of Public Health
2008- Director, Translational Genetics Program, Harvard University Clinical and Translational Science Center

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

1. **Smoller JW**, Truett GE, Hirsch J, et al. A molecular genetic method for genotyping fatty (fa/fa) rats. *Am J Physiology*. 1993; 264:R8-11.
2. Truett GE, Jacob HJ, Miller J, Drouin G, Bahary N, **Smoller JW**, et al. Genetic map of rat chromosome 5 including the fatty (fa) locus. *Mammalian Genome*. 1995; 6:25-30.
3. **Smoller JW**, Tsuang MT. Panic and phobic anxiety: defining phenotypes for genetic studies. *Am J Psychiatry*. 1998; 1152-62.
4. Wilcox MA, **Smoller JW**, Lunetta KL, et al. Using recursive partitioning for exploration and follow-up of linkage and association analyses. *Genet Epidemiology*. 1999; 17(suppl 1):385-90.
5. **Smoller JW**, Lunetta KL, Robins J. Implications of comorbidity and ascertainment bias for identifying disease genes. *Am J Med Genet (Neuropsychiatric Genetics)*. 2000; 96:817-22.
6. **Smoller JW**, Acierno JS Jr, Rosenbaum JF, et al. Targeted genome screen of panic disorder and anxiety disorder proneness using homology to murine QTL regions. *Am J Med Genet*. 2001; 105:195-206.
7. **Smoller JW**, Rosenbaum JF, Biederman J, et al. Genetic association analysis of behavioral inhibition using candidate loci from mouse models. *Am J Med Genet (Neuropsychiat Genet)*. 2001; 105:226-35.

8. Robins J, **Smoller JW**, Lunetta KL. On the validity of the TDT in the presence of comorbidity and ascertainment bias. *Genetic Epidemiology* 2001; 21:326-36.
9. **Smoller JW**, Pollack MH, Wassertheil-Smoller S, et al. Prevalence and correlates of panic attacks in post-menopausal women: Results from an ancillary study to the Women's Health Initiative. *Arch Int Med.* 2003; 163:2041-50.
10. Perlis RH, Mischoulon D, **Smoller JW**, et al. Serotonin transporter polymorphisms and adverse effects with fluoxetine treatment. *Biol Psychiatry.* 2003; 54:879-83.
11. **Smoller JW**, Finn CT. Family, twin and adoption studies of bipolar disorder. *Am J Med Genetics* 2003; 123C:48-58.
12. **Smoller JW**, Rosenbaum JF, Biederman J, et al. Association of a genetic marker at the corticotropin releasing hormone locus with behavioral inhibition. *Biol Psychiatry.* 2003; 1376-81.
13. Freedman ML, Reich D, Penney KL, McDonald GJ, Mignault AA, Patterson N, Gabriel SB, Topol EJ, **Smoller JW**, Pato CN, Pato MT, et al. Assessing the impact of population stratification on genetic association studies. *Nature Genetics.* 2004; 36:388-93.
14. Finn CT, Wilcox MA, Korf BR, Blacker DL, Racette SA, Sklar P, **Smoller JW**. Psychiatric genetics: a survey of psychiatrists' knowledge, opinions and practice patterns. *J Clin Psychiatry.* 2005; 66:821-30.
15. **Smoller JW**, Yamaki LH, Fagerness JA, et al. The corticotropin releasing hormone gene and behavioral inhibition in children at risk for panic disorder. *Biol Psychiatry.* 2005; 57:1485-92.
16. Faraone SV, Perlis RH, Doyle AE, **Smoller JW**, et al. Molecular genetics of attention deficit hyperactivity disorder. *Biol Psychiatry.* 2005; 57:1313-23.
17. McQueen MB, Devlin B, Faraone SV, Nimgaonkar VL, Sklar P, **Smoller JW**, et al. Combined analysis from eleven linkage studies of bipolar disorder provides strong evidence for susceptibility loci on chromosomes 6q and 8q. *Am J Hum Genet.* 2005; 77:582-95.
18. Koenen KC, Saxe G, Purcell S, **Smoller JW**, et al. Polymorphisms in *FKBP5* are associated with peri-traumatic dissociation in medically injured children. *Mol Psychiatry.* 2005; 10:1058-9.
19. **Smoller JW**, Biederman J, Arbeitman L, et al. Association between the 5HT1B receptor gene and the inattentive subtype of ADHD. *Biol Psychiatry.* 2006; 59(5):460-7.
20. Simon NM, **Smoller JW**, McNamara KL, et al. Telomere shortening and mood disorders: preliminary support for a chronic stress model of accelerated aging. *Biol Psychiatry.* 2006; 60(5):432-5.
21. Stewart SE, Platko J, Fagerness J, Birns J, Jenike E, **Smoller JW**, et al. A genetic family-based association study of *OLIG2* in obsessive-compulsive disorder. *Arch Gen Psychiatry.* 2007; 64:209-15.
22. Perlis RH, Purcell S, Fagerness J, Cusin C, Yamaki L, Fava M, **Smoller JW**. Clinical and genetic dissection of anger expression and *CREB1* polymorphisms in major depressive disorder. *Biol Psychiatry.* 2007; 62(5):536-40.
23. Perlis RH, Purcell S, Fava M, Fagerness J, Rush AJ, Trivedi MH, **Smoller JW**. Association between treatment-emergent suicidal ideation with citalopram and polymorphisms near cAMP Response Element Binding Protein (*CREB1*) in the STAR*D study. *Arch Gen Psychiatry.* 2007; 64:689-97.
24. Kim JW, Waldman ID, Faraone SV, Biederman J, Doyle AE, Purcell S, Arbeitman L, Fagerness J, Sklar P, **Smoller JW**. Investigation of parent-of-origin effects in ADHD candidate genes. *Am J Med Genet B* 2007; 144(6):776-80.
25. **Smoller JW**, Mark H. Pollack MH, et al. Panic attacks and risk of incident cardiovascular events among post-menopausal women in the Women's Health Initiative Observational Study. *Arch Gen Psychiatry.* 2007; 64(10):1153-60.
26. **Smoller JW**, Paulus MP, Fagerness JA, et al. *RGS2* influences anxiety-related temperament, personality, and brain function. *Arch Gen Psychiatry.* 2008;65(3):298-308.
27. Perlis RH, Purcell S, Fagerness J, Trivedi MH, Fava M, Rush AJ, **Smoller JW**. Pharmacogenetic analysis of genes implicated in rodent models of antidepressant response: Association of *TREK1* and treatment resistance in the STAR*D study. *Neuropsychopharmacology.* 2008 Feb 20; [Epub ahead of print]
28. Sklar P, **Smoller JW**, Fan J, et al. Whole-genome association study of bipolar disorder. *Molecular Psychiatry* 2008 Jun;13(6):558-69.
29. Vansteelandt S, DeMeo DL, Su J, **Smoller JW**, et al. Testing and estimating gene-environment interactions in family-based association studies. *Biometrics.* 2008 Jun;64(2):458-67.
30. Perlis RH, Holt D, **Smoller JW**, et al. A polymorphism near *CREB1* is associated with differential aversion processing in the insula of healthy subjects. *Arch Gen Psychiatry,* 2008 Aug;65(8):882-892.
31. Ferreira MA, O'Donovan MC, Meng YA, Jones IR, Ruderfer DM, Jones L, Fan J, Kirov G, Perlis RH, Green EK, **Smoller JW**, et al ... Purcell SM, Sklar P, Craddock N. Collaborative genome-wide association analysis supports a role for *ANKK1* and *CACNA1C* in bipolar disorder. *Nature Genetics* 2008 Sep;40(9):1042-4.
32. Makris N, Gasic GP, Kennedy DN, et al..., **Smoller JW**, Fava M, Breiter HC. Abnormal cortical thickness, topography, reward, and effortful attention in cocaine dependence. *Neuron,* 2008 Oct 9;60(1):174-88.

33. Gasic GP, **Smoller JW**, Perlis RH, et al. BDNF, relative preference, and reward circuitry responses to emotional communication. *Am J Med Genet B Neuropsychiatr Genet.*, in press.
34. Fan J, Ionita I, McQueen MB...and **Smoller, JW**. Linkage disequilibrium mapping of the chromosome 6q21-22.31 bipolar I disorder susceptibility locus. *Am J Med Genet B neuropsychiatry Genet.*, in press.
35. Perlis RH, **Smoller JW**, Ferreira MAR, et al. A genomewide association study of response to lithium for prevention of recurrence in bipolar disorder. *Am J Psychiatry*, in press.

C. Research Support

Ongoing Research Support

R01 MH070919 (Pollack) 9/28/05 – 7/31/10

NIH/NIMH Role: Co-Investigator

Improving Outcomes in the Pharmacotherapy of Social Phobia

The major goal of this project is to assess treatment approaches for patients with generalized social anxiety disorder refractory to initial pharmacotherapy with the serotonin-selective reuptake inhibitor sertraline.

R01 MH066877 (Faraone) 5/15/06 – 3/31/11

NIH/NIMH Role: Co-Investigator

Searching for ADHD Susceptibility Genes

The major goal of this study is to identify ADHD susceptibility variants in genes, which have been strongly implicated in the disorder. The analysis will include family-based and haplotypes-based association studies in more than 500 families.

No number assigned (Smoller) 1/1/07 – 12/31/09

McLean Hospital Role: Principal Investigator

Gene Regulation and Linkage Analysis in Bipolar Disorder and Schizophrenia

The major goal of this project is to assist collaborators at McLean hospital with biological sample processing and storage.

R01 MH079799 (Smoller) 3/5/07 – 2/28/12

NIH/NIMH Role: Principal Investigator

Using Genetics to Dissect Schizophrenia, Bipolar Disorder and Depression

The major goal of this project is to combine phenotypic and genetic data from three large multicenter NIMH-funded treatment studies to dissect genetic influences on schizophrenia, bipolar disorder, and depression.

R01 MH077700 (Simon) 4/1/07 – 3/31/12

NIH/NIMH Role: Co-Investigator

Depression, DNA Damage and Telomeres: A Chronic Stress Model of Accelerated Aging

The goal of this study is to examine the impact chronic depression, anxiety and stress related disorders have on measures of accelerated aging (telomere length and DNA damage) and the potential association with chronic inflammation (cytokines).

R01 MH074791 (Davis) 4/4/07 – 3/31/12

Baylor University

NIH/NIMH Role: Co-Investigator

Cyclic AMP Signaling and Bipolar Disorder

The long-term goals of this research project are to detail the possible role of cAMP signaling system in Bipolar Disorder using genetic association methods.

R01 DA021245 (Evins) 9/1/07 – 5/31/11

NIH/NIDA Role: Co-Investigator

Smoking Cessation and Smoking Relapse Prevention in Patients with Schizophrenia

The goals of this study are to evaluate the efficacy and tolerability of combination therapy with bupropion and nicotine replacement therapy for smoking cessation and to identify pharmacogenetic predictors of response.

U54LM008748 (Kohane) 8/1/2007 – 7/31/09

I2b2 Role: Principal Investigator

Building a Risk Stratification Model for Treatment-resistant Major Depressive Disorder

The major goals of this project are to use advanced data-mining tools to identify a large cohort of individuals with TRD treated in a health care system and a matched cohort of individuals with SSRI-responsive MDD that will be used to develop a predictive model to allow stratification of risk for TRD.

R01 MH078928 (Koenen) 12/1/07 – 11/30/11

Harvard School of Public Health

NIH/NIMH Role: Co-Investigator

Genetic Determinants of PTSD in Women

The major goal of this project is to detect variants of specific genes that predict the development of PTSD following trauma.

R01 MH081130 (Pollack) 4/24/08 – 3/31/13

NIH/NIMH Role: Co-Investigator

Exposure, D-Cycloserine Enhancement, and Genetic Modulators in Panic Disorder

The major goals of this project are to compare the acute efficacy of DCS augmentation relative to placebo augmentation of CBT for the treatment of patients with panic disorder, examine the longer-term effects of DCS, and to examine whether genetic loci strongly implicated in the neurobiology of fear conditioning and extinction are associated with extinction learning in response to CBT alone or CBT/DCS treatment.

UL1 RR025758-01 (Nadler) 5/19/08 – 4/30/13

NIH Role: Collaborator

Harvard Clinical and Translational Science Center

The major goals of this project are to provide enriched resources to educate and develop the next generation of researchers trained in the complexities of translating research discoveries into clinical trials and ultimately into practice, design new and improved clinical research informatics tools for analyzing research data and managing clinical trials, support outreach to underserved populations, local community and advocacy organizations, and health care providers, and assemble interdisciplinary teams and forge new partnerships with private and public health care organizations.

R01 MH085542 (Smoller/Sklar) 10/1/08 – 9/29/13

NIH/NIMH Role: Principal Investigator

International Cohort Collection for Bipolar Disorder

The major goals of this project are to collect a large cohort of bipolar disorders cases and unaffected controls, and construct a harmonized data resource for genetic studies combining phenotypic data from the U.S. case-control sample with a parallel, separately funded European case-control sample.

Completed Research Support

R01 MH63445 (Smoller) 5/1/03 – 3/31/08

NIH/NIMH Role: Principal Investigator

Genetic Determinants of Bipolar Disorder

The goal of this project is to identify genes which influence bipolar disorder by examining candidate loci in regions previously linked to bipolar disorder. The study sample would be drawn from the large STEP-BD treatment study of bipolar disorder.

DATM05-02-R (Breiter) 10/1/03 – 12/31/08

ONDCP Role: Co-Investigator

Development of Pattern Variable Technologies for Reward/Aversion Behavior (Preference Dynamics) and Neuroimaging, and Their Use for Emotional Fingerprinting of Individuals

The goal of this project is to understand the genetic bases for the circuitry alteration conferring susceptibility/resistance to cocaine dependence and depression.