

**BIOGRAPHICAL SKETCH**

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.  
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Smolen, Andrew	POSITION TITLE Senior Research Associate		
eRA COMMONS USER NAME			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of Wyoming	B.S.	1972	Biochemistry
University of Wyoming	M.S.	1974	Biochemistry
University of Colorado	Ph.D.	1979	Pharmacology

**A. Positions and honors.**

- 6/79 - 1/81 Postdoctoral Fellow, NIDA Drug Abuse Training Grant, Institute for Behavioral Genetics, University of Colorado.
- 1/81 - 11/82 Postdoctoral Scholar, Department of Pharmacology, University of Michigan Medical School.
- 11/82 - Research Associate (Faculty Fellow), Institute for Behavioral Genetics, University of Colorado.
- 1/86 - 5/90 Assistant Professor (Attendant), School of Pharmacy, University of Colorado.
- 6/90 - 2/93 Associate Research Professor, School of Pharmacy, University of Colorado.
- 1/92- Member, Clinical Nutrition Research Unit, Center for Human Nutrition, University of Colorado Health Sciences Center.
- 4/96- Associate Professor, Adjoint, School of Pharmacy, University of Colorado Health Sciences Center.
- 1/04- Senior Research Associate (Faculty Fellow), Institute for Behavioral Genetics, University of Colorado.

**B. Selected peer-reviewed publications.**

- Leibman, D., Furth-Walker, D. and Smolen, A. Vitamin B-6 Metabolic Enzymes in Blood and Placenta of Pregnant Mice. *J. Nutr.* 120: 178-184, 1990.
- Leibman, D., Furth-Walker, D., Smolen, T.N. and Smolen, A. Pyridoxal 5'-phosphate and Pyridoxamine 5'-phosphate Concentrations in Blood and Tissues of Mice Fed Ethanol-Containing Liquid Diets. *Alcohol* 7: 61-68, 1990.
- Leibman, D., Smolen, A. and Smolen, T.N. Strain, Sex and Developmental Profiles of Cocaine Metabolizing Enzymes in the Mouse. *Pharmacol. Biochem. Behav.* 37: 161-165, 1990.
- Smolen, T.N. and Smolen, A. Developmental Expression of Cocaine Hepatotoxicity in the Mouse. *Pharmacol. Biochem. Behav.* 36: 333-338, 1990.
- Gan, K., Smolen, A., Eckerson, H.W. and La Du, B.N. Purification of Human Serum Paraoxonase/Arylesterase. Evidence for One Esterase Catalyzing Both Activities. *Drug Metab. Disp.* 19: 100-106, 1991.
- Smolen, A., Eckerson, H.W., Gan, K., Hailat, N. and La Du, B.N. Characteristics of the Genetically Determined Allozymic Forms of Human Serum Paraoxonase/Arylesterase. *Drug Metab. Dispos.* 19: 107-112, 1991.
- Smolen, A. and Marks, M.J. Genetic Selections for Nicotine and Cocaine Sensitivity in Mice. *J. Addict. Dis.* 10: 7-28, 1991.
- Smolen, T.N. and Smolen, A. Purinergic Modulation of Ethanol-Induced Sleep Time in Long-Sleep and Short-Sleep Mice. *Alcohol* 8: 123-130, 1991.
- Smolen, A., Smolen, T.N. and Han, P.C. Alterations in Regional Brain GABA Concentration and Turnover During Pregnancy. *Pharmacol. Biochem. Behav.* 44: 63-69, 1992.
- Smolen, T.N. and Smolen, A. Down-Regulation of Adenosine A-2 Receptors in Long-Sleep Mice Following Chronic Ethanol Administration. *Alcohol.: Clin. Exp. Res.* 17: 498, 1993. (Abstract).
- Westrick, J.A. and Smolen, A. Effects of Pregnancy and Vitamin B-6 Nutriture on Alanine (ALT) and Aspartate Aminotransferase (AST) Activities in Age-Fractionated Erythrocytes. *FASEB J.* 7: A728, 1993. (Abstract).

- Smolen, A., Marks, M.J., DeFries, J.C. and Henderson, N.D. Individual Differences in Sensitivity to Nicotine in Mice: Response to Six Generations of Selective Breeding. *Pharmacol. Biochem. Behav.* 49:531-540, 1994.
- Westrick, J.A. and Smolen, A. Aminotransferase Activities in Mouse, *Mus domesticus*, Erythrocytes Separated According to Age. *Comp. Biochem. Physiol.* 109B: 489-497, 1994.
- Smolen, A. Vitamin B-6 Metabolism and the Maternal-Fetal Relationship. In: *Vitamin B-6 in pregnancy, lactation and infancy*, Raiten, D., ed. CRC Press, 1995, pp. 93-108.
- Smolen, T.N., Mason, E.E., Burrows, J.F. and Smolen, A. Alteration of Adenosine Receptors Following Chronic Intravenous Infusion of Ethanol. *Alcohol.: Clin. Exp. Res.* 19: 88A, 1995. (Abstract).
- van de Kamp, J.L. and Smolen, A. Response of Kynurenine Pathway Enzymes to Pregnancy and Dietary Level of Vitamin B-6. *Pharmacol. Biochem. Behav.* 51: 753-758, 1995.
- van de Kamp, J.L., Westrick, J.A. and Smolen, A. B-6 Vitamer Concentrations in Mouse Plasma, Erythrocytes and Tissues. *Nutr. Res.* 15: 415-422, 1995.
- Morale, R.P., Smolen, T.N. and Smolen A. Relationships Between Pregnancy and Vitamin B-6 Nutriture on Hepatic Tryptophan 2,3-Dioxygenase Activity in Mice. *Nutr. Res.* 16: 851-854, 1996.
- Westrick, J.A., Johnson, C.R., Simmons, J.H. and Smolen, A. Shifts in Affinity of Oxygen Binding to Human Hemoglobin A Induced by Pyridoxal and Pyridoxal 5'- Phosphate. *J. Nutr. Biochem.* 8: 20-24, 1997.
- van de Kamp, J.L. and Smolen, A. Relationships Between Pregnancy and Vitamin B-6 Nutriture on Brain 3-Hydroxykynurenine Concentrations. *Nutr. Neurosci.* 3:131-138, 2000.
- Hutchison, K.E., LaChance, H., Niaura, R., Bryan, A.D. and Smolen, A. The DRD4 VNTR Polymorphism Influences Reactivity to Smoking Cues. *J. Abnorm. Psychol.*, 11: 134-143, 2002.
- Hutchison, K.E., McGeary, J., Smolen, A. and Bryan, A.D. The DRD4 VNTR Polymorphism Moderates Craving After Alcohol Consumption. *Health Psychol.* 21: 139-146, 2002.
- Young, S.E., Smolen A., Corley, R.P., Krauter, K.S., DeFries, J.C., Crowley, T.C. and Hewitt, J.K. Dopamine Transporter Polymorphism is Associated With Childhood Externalizing Behavior. *Am. J. Med. Genet. (Neuropsych. Genet.)* 114: 144-149, 2002.
- Anchordoquy, H.C., McGeary, C., Liu, L., Krauter, K.S. and Smolen, A. Genotyping of three candidate genes following whole genome preamplification of DNA collected from buccal cells. *Behav. Genet.* 33: 73-78, 2003.
- Stallings, M.C., Corley, R.C., Hewitt, J.K., Krauter, K.S., Lessem, J.L., Mikulich, S.K., Rhee, S.H., Smolen, A., Young, S.E. and Crowley, T.J. A genome-wide search for quantitative trait loci influencing substance dependence vulnerability in Adolescence. *Drug Alc. Depend.* 70: 295-307, 2003.
- Loo, S.K., Specter, E., Smolen, A., Hopfer, C., Teale, P.D. and Reite, M.L. Functional effects of the DAT1 polymorphism on EEG measures in ADHD. *J. Amer. Acad. Child Adoles. Psych.* 42: 987-993, 2003.
- Young, S.E., Smolen, A., Stallings, M.C., Corley, R.P. and Hewitt, J.K. Sibling-based association analyses of the serotonin transporter polymorphism and internalizing behavior problems in children. *J. Child Psychol. Psychiatry.* 44: 1-7, 2003.
- Haberstick, B.C. and Smolen, A. Genotyping of three single nucleotide polymorphisms following whole genome preamplification of DNA collected from buccal cells. *Behav. Genet.* 34: 541-547, 2004.
- Haberstick, B.C., Lessem, J.M., Hopfer, C.J., Smolen, A., Ehringer, M.A., Timberlake, D., and Hewitt, J.K. MAOA Genotype and Antisocial Behaviors in the Presence of Childhood and Adolescent Maltreatment. *Am. J. Hum. Genet. (Neuropsych. Genet.)* 135B: 59-64, 2005.
- Hopfer, C.J., Timberlake, D., Haberstick, B.C., Lessem, J.M., Ehringer, M.A., Smolen, A. and Hewitt, J.K. Genetic Influences on Quantity of Alcohol Consumed by Adolescents and Young Adults. *Drug Alc. Depend.* 78: 187-193, 2005.
- Haberstick, B.C., Smolen, A. and Hewitt, J.K. Family-based association test of a promoter polymorphism in the serotonin transporter and aggressive behavior in a general population sample of children. *Biological Psychiatry.* In Press.
- Stallings, M.C., Corley, R.C., Dennehey, B., Hewitt, J.K., Krauter, K.S., Lessem, J.L., Mikulich-Gilbertson, S.K., Rhee, S.H., Smolen, A., Young, S.E. and Crowley, T.J. A genome-wide search for quantitative trait loci influencing antisocial drug dependence in adolescence. *Arch. Gen. Psych.* 62: 1042-1051, 2005.
- Timberlake, D.S., Haberstick, B.C., Lessem, J.M., Smolen, A. Ehringer, M.A. and Hewitt, J.K. Association between the DAT1 9-Repeat Allele and Reduced Smoking in Young Adults from the National Longitudinal Study of Adolescent Health. *Health Psychology.* In Press.
- Young, S.E., Smolen, A., Hewitt, J.K., Haberstick, B.C., Stallings, M.C., Corley, R.C. and Crowley, T.J. Interaction Between MAO-A Genotype and Maltreatment in the Risk for Conduct Disorder: Failure to Confirm in Adolescent Patients. *Am. J. Psych.* In Press.

## C. Research Support

### Ongoing Research Support

5 R01 MH 062120-05 (Willcutt) 08/15/00-07/31/06 (no cost extension)  
NIH/NIMH  
**DSM-IV ADHD in an Ethnically Diverse Community Sample**

Major goals are to assess ethnic group differences in the manifestation of DSM-IV ADHD. A large community sample of children will be ascertained in the Denver metropolitan area to test the internal and external validity of DSM-IV ADHD in an ethnically diverse population that includes a large proportion of African American and Hispanic children.

Role: Co-I

5 R01 AA 011949-05 (Menard) 09/30/00-08/31/06 (no-cost extension)  
NIH/NIAAA  
**NYS Family Study: Problem Alcohol Use and Problem Behavior  
Subcomponent for the Institute for Behavioral Genetics (Hewitt)**

This project is an intergenerational and life course study of problem alcohol use and related problem behaviors, including the victimization and perpetration of violent and other criminal offenses, illicit substance abuse, high risk sexual behavior, and mental health problems.

Role: Co-I

5 R01 MH 063941-05 (Willcutt) 09/10/01-08/31/06  
NIH/NIMH  
**Validity of DSM-IV ADHD Subtypes in a Community Sample**

A study of 750 children with ADHD and 150 children without ADHD designed to test the validity and etiology of ADHD subtypes.

Role: Co-I

5 R01 DA 014642-05 (Hutchison) 09/30/01-06/30/06  
NIH/NIDA  
**Progression of Craving and Addiction: Genetic Factors**

This project investigates the heritability of cue-elicited craving for tobacco and whether the DRD4 VNTR polymorphism influences craving during nicotine consumption.

Role: Co-I

5 P60 DA 011015-08 (Crowley) 08/15/03-04/30/08  
NIH/NIDA  
**Antisocial Drug Dependence: Genetics  
Component V (Krauter)**

The goal of this project is to identify candidate genes involved in Antisocial Drug Dependence. Experiments include the characterization of critical gene polymorphisms in candidate genes, measurement of the distribution of alleles in clinical and normal populations, and statistical analysis of the relevance of these genes to the drug dependence phenotype.

Role: Co-I

5 R01 AA 014250-03 (Smolen)  
NIH/NIAAA

09/30/03-08/31/06

**Genetic Association and Stratification: Alcoholism**

The main goal of this project is to test for association between three phenotypes related to alcohol dependence and abuse and seven candidate genes while controlling for the effects of population stratification in a nationwide probability sample.

Role: PI

2 R01 AA012238-06A2 (Hutchison)  
NIH/NIAAA

05/05/05-04/30/10

**Alcohol Dependence: Integrating Genetic & fMRI Methods**

The aims are to determine whether exposure to alcohol increases activation of mesolimbic and prefrontal brain structures using BOLD fMRI, to determine whether this activation is correlated with the subjective experience of craving, to determine whether the DRD4 VNTR polymorphism influences this activation, and to determine whether a medication targeting dopamine receptors attenuates this activation.

Role: Co-I

1 R01 HD 047264-01A1 (Willcutt)  
NIH/NICHD

07/15/05-05/31/10

**Etiology of Reading Disabilities and Comorbid ADHD**

A genome-wide screen for quantitative trait loci that increase risk for reading disability and ADHD.

Role: Co-I

PO1 HD 31921 (Harris)  
NIH/NICHD

01/01/06-12/31/11

**National Longitudinal Study of Adolescent Health**

This is a program project to conduct a fourth wave of interviews, including DNA collection and genotyping, of the approximately 17,000 participants in the National Longitudinal Study of Adolescent Health. Role: Principal Investigator of the DNA collection and genotyping component.

National Alliance for Research on Schizophrenia & Depression  
(Whisman)

10/01/05-09/30/07

**Prospective Associations Among Genes, Stress, and Depression**

This study seeks to investigate the prospective associations among genes, stress, and depression.

Role: Co-I