CURRICULUM VITAE

JERRY ALAN STITZEL

Work Address: Institute for Behavioral Genetics
University of Colorado UCB 447
Boulder, CO 80309
Office: 303-735-6173
FAX: 303-492-8063
Email: Stitzel@colorado.edu

EDUCATION

Ph.D. The Johns Hopkins University, Baltimore, MD. Department of Biology, 1992.
Thesis Title: Cyclic AMP Inducible Transcription of the Prokaryotic pBR322 Origin of Replication Region by RNA Polymerase II in Mammalian Cells.

B.A. The University of Colorado, Boulder, CO; Double Major: Molecular, Cellular and Developmental Biology, and Biochemistry, 1984.

FACULTY POSITIONS

1999-2003 Assistant Research Scientist, University of Michigan Medical School, Department of Pharmacology (Primary appointment) and Department of Psychiatry

2004- Assistant Professor, Department of Integrative Physiology, University of Colorado, Boulder, CO.

2004- Faculty Fellow, Institute for Behavioral Genetics, University of Colorado, Boulder, CO.

RESEARCH AND TEACHING EXPERIENCE

2002-2003 Instructor, Pharmacogenetics lectures for Pharm 525 (Medical Students), Pharm 611 (Graduate Students) and Pharm 660 (PharmD Students).

1994-1999 Research Associate, Institute for Behavioral Genetics, University of Colorado, Boulder. Dr. Allan C. Collins Laboratory

1992-1994 Post-Doctoral Fellow, Alcohol Research Center and Institute for Behavioral Genetics, University of Colorado, Boulder. Dr. Allan C. Collins Laboratory

1986-1992 Ph.D. Candidate, Department of Biology, The Johns Hopkins University, Baltimore, MD. Thesis advisor: Dr. Ru Chih C. Huang.

1988 Teaching Assistant, Developmental Biology Laboratory, The Johns Hopkins University.

1987 Head Teaching Assistant/Laboratory Manager, Molecular Cell Biology Laboratory, The Johns Hopkins University.

1984-1986 Research Assistant, Dr. Allan C. Collins laboratory, Institute for Behavioral Genetics, The University of Colorado, Boulder, CO.

1983-1984 Laboratory Assistant, undergraduate cell and developmental biology Laboratory courses, Department of Molecular, Cellular and Developmental Biology, The University of Colorado. Supervisor: Dr. Sandra L. Biroc

HONORS AND AWARDS

2001- Research Scholar Award. The American Cancer Society.

1992-1994 Post-Doctoral Fellow. University of Colorado Alcohol Research Center, Boulder, CO

SERVICE

2002 NIH MCDN-5 (01) Ad Hoc Reviewer (December)
2000-2003 Member, University of Michigan Department of Pharmacology Advisory Committee.
1999-2003 Member, Operating Committee. University of Michigan Substance Abuse Research Center.
1999- Ad hoc reviewer, multiple journals

CONSULTING ACTIVITIES

2002- Invited participant: NIAAA Workshop, Alcohol and Tobacco: Mechanisms and Treatment (Project # AAAW060-1554 (9H))
2001- Consultant for Program Project Grant Proposal entitled "Biometric and Measured Genetic Research on Smoking", O.F. Pomerleau, P.I. University of Michigan, Ann Arbor, MI
2000- Ad Hoc consultant for NIDA R01Grant entitled "Genetics of vulnerability to nicotine addiction", Pamela Madden, P.I., Washington University, St. Louis. MO

PROFESSIONAL SOCIETIES

Society for Neuroscience
International Mammalian Genome Society
International Behavioral and Neural Genetics Society

GRANT SUPPORT

Current:

Project title: Identification of Functional nAChR Variants in Mice
Agency: NIH (NIDA)
Principal Investigator: Jerry A. Stitzel
Period of Support: 7/01/01-3/31/05
Percent Effort: 40%
Amount: $700,000 (Total Direct Costs)
In this proposal, we will screen a large set of inbred mouse strains for amino acid-altering polymorphisms in several nAChR subunit genes. All identified variants will be assessed for pharmacological and functional properties using electrophysiological techniques.

Project Title: Genetic Analysis of Nicotine Preference in Mice.
Agency: American Cancer Society
Principal Investigator: Jerry A. Stitzel
Period of Support: 7/1/01-6/30/05
Percent Effort: 50%
Amount: $858,000 (Total Costs)
QTL (quantitative trait locus) analysis and fine mapping of genes that influence nicotine oral self-selection in mice are the studies outlined in this proposal.

Project Title: Nicotinic Receptor Variability and Alcohol Sensitivity in Mice.
Agency: Alcoholic Beverage Medical Research Foundation
Principal Investigator: Jerry A. Stitzel
Period of Support: 7/1/01-6/30/03
Percent Effort: 10%
Amount: $78,450 (Total Costs)
The effect on receptor pharmacology and influence on alcohol-related responses of naturally occurring amino acid polymorphisms in the mouse α4 and α6 nicotinic receptor subunits will be assessed.

Pending:

PUBLICATIONS

Li, X., Karadsheh, M., Jenkins, P., and **Stitzel, J.A.** Genetic correlation between alcohol and nicotine consumption in mice. Submitted.

Butt,C.M., King,N.M., **Stitzel, J.A.,** Collins,A.C. Interaction of the Nicotinic Cholinergic System with Ethanol Withdrawal. J. Pharmacol. Exp. Ther. In Press.

Cui, C, Booker, T.K., Allen, R.S., Grady, S.R., Whiteaker, P., Marks, M.J., Salminen, O., Tritto, T., Butt, C.M., Allen, W.R., **Stitzel, J.A.**, McIntosh, J.M., Boulter, J., Collins, A.C., Heinemann, S.F. The (3 nicotinic receptor subunit: A component of α-Conotoxin MII binding nAChRs which modulate dopamine and related behaviors. J Neurosci 23: 11045-11053, 2003

Saragoza, P.A., Modir, J.G., French, K., Goel, N., Nowak, M., and **Stitzel, J.A.**, Identification of an alternatively processed nAChR α7 subunit RNA in mouse brain. Molec Brain Res 117: 15-26, 2003.

Kim, H., Flanagin, B.A, Qin, C., Macdonald, R.L., and **Stitzel, J.A.** The Mouse Chrna4 A529T Polymorphism Alters the Ratio of High to Low Affinity α4β2 nAChRs. Neuropharmacol 45: 345–354, 2003.

Butt, C.M., Hutton, S.R., **Stitzel, J.A.**, Balogh, S.A., Owens, J.C., and Collins, A.C. A Naturally Occurring Polymorphism in the α4 Nicotinic Receptor Gene (Chrna4) Modulates Enhancement of Nicotinic Receptor Function by Ethanol. Alcholism: Clin Exp Res. 27:733-742,2003

Dobelis, P.A., Marks, M.J., Whiteaker, P.A., Balogh S.A. Collins, A.C., and **Stitzel, J.A.** A Polymorphism in the Mouse Neuronal α4 Nicotinic Receptor Subunit Results in an Alteration in Receptor Function. Molec. Pharmacol 62:334–342, 2002

Tritto, T., **Stitzel, J.A.**, Marks, M.J., and Collins, A.C. Variability in Response to Nicotine in the LSxSS RI Strains: Potential Role of Polymorphisms in α4 and α6 Nicotinic Receptor Subunit Genes. Pharmacogenetics 12: 197-208. 2002

Adams, C.A., **Stitzel, J.A.**, Collins, A.C. and Freedman, R. α7 Nicotinic Receptor Expression and the Anatomical Organization of Hippocampal Interneurons. Brain Research 922: 180-190, 2001.

Stitzel, J.A., Dobelis, P., Jimenez, M.A., and Collins, A.C. LS and SS Mice Differ in Nicotine-Stimulated $^{86+}$Rb Efflux and nAChR Alpha 4 Subunit cDNA Sequence. Pharmacogenetics 11:331-339, 2001

Tritto, T., Marley, R.J., Bastidas, D., **Stitzel, J.A.**, and Collins, A.C. Potential Regulation of Nicotine and Alcohol Actions by α4-Containing Nicotinic Receptors. Alcohol 24: 69-78. 2001.

Marks, M.J., **Stitzel, J.A**., Grady, S.R., Picciotto, M.R., Changeux, J.-P., and Collins, A.C. Nicotinic-Agonist Stimulated $^{86+}$Rb Efflux and [^{3}H]Epibatidine Binding in Brain Regions of Mice Differing in β2 Genotype. Neuropharmacology 39:2632-2645. 2000.

Stitzel, J.A. Lu, Y., Jimenez, M., Tritto, T., and Collins, A.C. Genetic and Pharmacological Strategies Identify a Behavioural Function of Brain Nicotinic Receptors. Behav Brain Res. 113: 57-64. 2000

Stitzel J.A., Leonard, S.S., and Collins, A.C. Genetic Regulation of Nicotine-Related Behaviors and Brain Nicotinic Receptors. In: F. Clemente, C. Gotti, and

D. Fornasari (eds.). Handbook of Experimental Pharmacology: Neuronal Nicotinic Receptors. Springer-Verlag. Milan, Italy. pp 563-585. 2000.

Stitzel, J.A., Jimenez, M., Marks, M.J., Tritto, T. and Collins, A.C. Potential Role of the α4 and α6 Nicotinic Receptor Subunits in Regulating Nicotine-Induced Seizures. J. Pharmacol. Exp. Ther. 293: 67-74. 2000.

Marks, M.J., Whiteaker, P., Calcaterra, J., **Stitzel, J.A.**, Bullock, A.E., Grady, S.R. Picciotto, M.R., Changeux, J.-P., and Collins, A.C. Two Pharmacologically Distinct Components of Nicotinic Receptor Mediated Rubidium Efflux in Mouse Brain Require the β2 Subunit. J. Pharmacol. Exp. Ther. 289:1090-1103. 1999.

Stitzel, J.A., Blanchette, J.M., and Collins, A.C. Sensitivity to the Seizure-Inducing Effects of Nicotine is Associated with Strain-Specific Variants of the α5 and α7 Nicotinic Receptor Subunit Genes. J. Pharmacol. Exp. Ther. 284: 1104-1111. 1998.

Stitzel, J.A., Farnham, D.A., and Collins, A.C. Linkage of Strain-Specific Nicotinic Receptor α7 Subunit Restriction Fragment Length Polymorphisms with Levels of α-Bungarotoxin Binding in Brain. Molecular Brain Research 43: 30-40. 1996.

Stitzel, J.A., Farnham, D.A., and Collins, A.C. Chronic Corticosterone Treatment Elicits Dose Dependent Changes in Mouse Brain α-Bungarotoxin Binding. Neuroscience 72: 791-799. 1996.

Stitzel, J.A., Robinson, S.F., Marks, M.J., and Collins, A.C. Differences in Response to Nicotine are Determined by Genetic Factors. In: The Effects of Nicotine on Biological Systems II. Adlkofer, I.,Clarke, P.B.S., and Quik, M. (eds.) Birkhauser Verlag, Boston. 1994.

Marks, M.J., **Stitzel, J.A.** and Collins, A.C. Genetic Influences on Nicotine Responses. Pharmacol., Biochem. and Behav. 33: 667-678; 1989.

Pauly, J.R., **Stitzel, J.A.,** Marks, M.J. and Collins, A.C. An Autoradiographic Analysis of Cholinergic Receptors in Mouse Brain. Brain Research Bulletin. 22: 453-459; 1989.

Stitzel, J.A., Campbell, S.M., Collins, A.C. and Marks, M.J. Sulfhydryl Modification of Two Nicotinic Binding Sites in Mouse Brain. Journal of Neurochemistry. 50: 920-928; 1988.

Marks, M.J., **Stitzel, J.A.** and Collins, A.C. Influence of Kinetics of Nicotine Administration on Tolerance Development and Receptor Levels. Pharmacol., Biochem. and Behav. 27: 505-512; 1987.

Marks, M.J., **Stitzel, J.A.** and Collins, A.C. Dose-Response Analysis of Nicotine Tolerance and Receptor Changes in Two Inbred Mouse Strains. J. Pharmacol. Exp. Ther. 239: 358-364; 1986.

Marks, M.J., **Stitzel, J.A.,** Romm, E., Wehner, J.M. and Collins, A.C. Nicotinic Binding Sites in Rat and Mouse Brain: Comparison of Acetylcholine, Nicotine, and α-Bungarotoxin. Mol. Pharmacol. 30: 427-436; 1986.

Marks, M.J., **Stitzel, J.A.** and Collins, A.C. Time Course Study of the Effects of Chronic Nicotine Infusion on Drug Response and Brain Receptors. J. Pharmacol. Exp. Ther. 235: 619-628; 1986.