

CURRICULUM VITAE

Abraham A. Palmer, Ph.D.

Assistant Professor
Department of Human Genetics
University of Chicago
920 E 58th St CLSC 507
Chicago, IL 60637
(773) 834-2897; (773) 834-0505 (fax)
<http://www.genes.uchicago.edu/palmer.html>
aap@uchicago.edu

Education:

1988-1991 B.A. Biology, University of Chicago
1993-1999 Ph.D. Biomedical Sciences, University of California San Diego

Dissertation:

"A Functional Neuroanatomical Study of the Autonomic Response to the Airpuff Startle Stimulus." Thesis Advisor: Morton P. Printz, Ph.D.

Positions:

1989-1991 Laboratory Technician with **Dr. Lewis S. Seiden**, University of Chicago
1991-1993 Staff Research Assistant with **Dr. William F. Ganong**, UC San Francisco
1993-1999 Graduate Student with **Dr. Morton P. Printz**, UC San Diego
1999-2002 Postdoctoral Fellow with **Dr. Tamara J. Phillips**, Oregon Health & Sciences University
2002-2003 Research Associate with **Dr. T. Conrad Gilliam**, New York Foundation for Mental Hygiene/Columbia University
2003-2005 Associate Research Scientist, Columbia University
2005- Assistant Professor of Human Genetics, University of Chicago

Honors and Awards:

1988 National Merit Scholarship, Semi-Finalist
1993 National Science Foundation Pre-Doctoral Fellowship, Honorable Mention
1996 PhRMA Pre-Doctoral Fellowship, Competitive Nomination
2000 Research Society on Alcoholism Junior Investigator Award
2001 Research Society on Alcoholism Junior Investigator Award
2002 OHSU Department of Behavioral Neuroscience Annual Best Paper Award
2002 OHSU School of Medicine Annual Best Paper Award Runner-Up
2005 ACNP "Hot Topics" symposium designation
2006 Schwappe Foundation Career Development Award

Fellowships and Grants:

- 1993-1996 **NIGMS** NRSA Pre-Doctoral Training Grant T31GM07752
1996-1999 **NHLBI** NRSA Pre-Doctoral Training Grant T31HL07261
1999-2001 **NIAAA** NRSA Post-Doctoral Training Grant T32AA07468
2000-2001 **N.L. Tartar Research Fellowship** “*Disruption of Circadian Rhythm, a Modulator of Ethanol Preference and Consumption?*”
2001-2002 **NIAAA** Individual NRSA Post-doctoral Fellowship “*Ethanol and Allopregnanolone: Common Genetic Influences?*” Submitted April 5, 2000, Priority Score 136, Awarded April 16, 2001, F32AA05600
2002-2003 **New York State Foundation for Mental Hygiene** Research Associate
2003-2005 **NARSAD** Young Investigator Award “Gene Expression Changes Following Chronic Fluoxetine in Serotonin and CRH Mutant Mice.”
2003- **NIMH** Mentored Research Scientist Development Award (K01) “Translational Genetic Study of Fear and Anxiety” Submitted June 1, 2003, Priority Score 137, Awarded March 1, 2004, K01MH70933
2006- **Schweppe Foundation Career Development Award**, “Translational Genetic Study of Stimulant Sensitivity”

Research Articles, Reviews and Book Chapters:

1. Walker, Claire-Dominique; Dallman, Mary F.; **Palmer, Abraham A.**; Steele, Marianne K. Involvement of Central Corticotrophin-Releasing Factor (CRF) in Suckling-Induced Inhibition of Luteinizing Hormone Secretion in Lactating Rats. *Journal of Neuroendocrinology*, **1993**, 5(4): 451-459.
2. **Palmer, Abraham A.**; Steele, Marianne K.; Shackelford, Roy L.; Ganong, William F. Intravenous Losartan Inhibits the Increase in Plasma Luteinizing Hormone and Water Intake Produced by Intraventricular Angiotensin II. *Proceedings of the Society for Experimental Biology and Medicine*, **1994**, 205(3): 263-266.
3. Klett, Christoph P. R.; **Palmer, Abraham A.**; Gallagher, Ann-Marie; Rioseco-Camacho, Natalia; Printz, Morton P. Differences in Cultured Cardiac Fibroblast Populations Isolated from SHR and WKY Rats. *Clinical and Experimental Pharmacology and Physiology*, **1995**, Supplement 1: S265-S267.
4. Klett, Christoph, P. R.; **Palmer, Abraham A.**; Dirig, David M.; Gallagher, Ann-Marie; Rioseco-Camacho, Natalia; Printz, Morton P. Evidence for Differences in Cultured Left Ventricular Fibroblast Populations Isolated from Spontaneously Hypertensive and Wistar-Kyoto Rats. *Journal of Hypertension*, **1995**, 13(12): 1421-1431.

5. **Palmer, Abraham A.;** Printz, Morton P. Attenuation of Airpuff Startle Induced Fos Expression Following Tympanic Membrane Rupture. *Brain Research*, **1998**, 787(1): 91-98.
6. Grove, Kevin L.; Speth, Robert C.; **Palmer, Abraham A.;** Ganong, William F.; Steele, Marianne K. Angiotensin II Receptor Binding Sites in the Ventral Portion of the Bed Nucleus of the Stria Terminalis are Reduced by Interruption of the Medial Forebrain Bundle. *Brain Research*, **1998**, 809(1): 5-11.
7. **Palmer, Abraham A.;** Printz, Morton P. Strain Differences in Fos Expression Following Airpuff Startle in SHR and WKY Rats. *Neuroscience*, **1999**, 89(3): 965-978
8. **Palmer, Abraham A.;** Printz, Morton P. Airpuff Startle Reflex Strain Differential Fos Expression in Young SHR and WKY. *Clinical and Experimental Hypertension*, **1999**, 21(7): 1061-1081.
9. **Palmer, Abraham A.;** Dulawa, Stephanie C.; Mottiwala, Aziz A.; Conti, Lisa H.; Geyer, Mark A.; Printz, Morton P. Prepulse Startle Deficit in the Brown Norway Rat: A Potential Genetic Model. *Behavioral Neuroscience*, **2000**, 114(2): 374–388.
10. Lessov, Christina N.; **Palmer, Abraham A.;** Quick, Edwin A.; Phillips, Tamara J. Voluntary Ethanol Drinking is Altered in Ethanol Sensitized C57BL/6J, But Not DBA/2J Mice. *Psychopharmacology*, **2001**, 155(1): 91-99.
11. Conti, Lisa H.; **Palmer, Abraham A.;** Vanella, Jessica J.; Printz, Morton P. Latent Inhibition and Conditioning in Inbred Rats that Show Differential Prepulse Inhibition. *Behavior Genetics*, **2001**, 31(3): 325-333.
12. **Palmer, Abraham A.;** Miller, Mark A.; McKinnon, Carrie S.; Phillips, Tamara J. Sensitivity to the Locomotor Stimulant Effects of Ethanol and Allopregnanolone is influenced by Common Genes. *Behavioral Neuroscience*, **2002**, 116(1): 126-137.
13. **Palmer, Abraham A.;** Phillips, Tamara J. Quantitative Trait Locus (QTL) Mapping in Mice. In: *Methods for Alcohol-Related Neuroscience Research*, (Lui, Yuan; Lovinger, David, Eds.), **2002**, pp 1-30, CRC Press: Boca Raton, FL.
14. **Palmer, Abraham A.;** Printz, Morton P. Expression of Fos Protein in RVLM Projecting Neurons Following Airpuff Startle in SHR and WKY rats: Origins of Sympathetic Response to Environmental Stimuli. *Clinical and Experimental Hypertension*, **2002**, 24(3): 125-139.
15. Phillips, Tamara J.; Shen, Elaine H. McKinnon, Carrie S.; Burkhart-Kasch, Sue; Lessov, Christina N.; **Palmer, Abraham A.;** Forward, Relaxed and Reverse

- Selection for Reduced and Enhanced Sensitivity to Ethanol's Locomotor Stimulant Effects in Mice. *Alcoholism: Clinical and Experimental Research*, **2002**, 26(5): 593-602.
16. Pandori, Mark W.; Hobson, David A.; Olejnik, Jerzy; Krzymanska-Olejnik, Edyta; Rothschild, Kenneth J.; **Palmer, Abraham A.**; Phillips, Tamara J.; Sano, Takeshi. Photochemical Control of the Infectivity of Adenoviral Vectors Using a Novel Photocleavable Biotinylation Reagent. *Chemistry & Biology*, **2002**, 9(5): 567-573.
 17. **Palmer, Abraham A.**; Moyer, Michelle R.; Crabbe, John C.; Phillips, Tamara J. Initial Sensitivity, Tolerance and Cross-Tolerance to Allopregnanolone- and Ethanol-Induced Hypothermia in Selected Mouse Lines. *Psychopharmacology*, **2002**, 162(3): 313-322.
 18. **Palmer, Abraham A.**; Phillips, Tamara J. Effect of Forward and Reverse Selection for Ethanol-Induced Locomotor Response on Other Measures of Ethanol Sensitivity. *Alcoholism: Clinical and Experimental Research*, **2002**, 26(9): 1322-1329.
 19. **Palmer, Abraham A.**; McKinnon, Carrie S.; Bergstrom, Hadley C.; Phillips, Tamara J. Locomotor Activity Responses to Ethanol, Other Alcohols, and GABA-A Acting Compounds in Forward- and Reverse-Selected FAST and SLOW Mouse Lines. *Behavioral Neuroscience*, **2002**, 116(6): 958-967.
 20. **Palmer, Abraham A.**; Breen, Laura L.; Flodman, Pamela; Conti, Lisa H.; Spence, M. Anne; Printz, Morton P. Identification of Quantitative Trait Loci for Prepulse Inhibition in Rats. *Psychopharmacology*, **2003**, 165(3): 270-279.
 21. **Palmer, Abraham A.**; Airey, David C. Letter to the Editor: Inappropriate choice of the experimental unit leads to a dramatic overestimation of the significance of quantitative trait loci for prepulse inhibition and startle response in recombinant congenic mice. *Neuropsychopharmacology*, **2003**, 28(4): 818.
 22. **Palmer, Abraham A.**; Low, Malcolm J.; Grandy, David K.; Phillips, Tamara J. Effects of a Drd2 Deletion Mutation on Ethanol-Induced Locomotor Stimulation and Sensitization Suggest a Role for Epistasis. *Behavior Genetics*, **2003**, 33(3): 311-324.
 23. Yonan, Amanda L.; Alarcón, Maricela; Cheng, Rong; Magnusson, Patrik K. E.; Spence, Sarah J.; **Palmer, Abraham A.**; Grunn, Adina; Juo, Suh-Hang Hank; Terwilliger, Joseph D.; Liu, Jianjun; Cantor, Rita M.; Geschwind, Daniel H.; Gilliam, T. Conrad. A Genomewide Screen of 345 Families for Autism Susceptibility Loci. *American Journal of Human Genetics*, **2003**, 73(4): 886-97.

24. Bergstrom, Hadley C.; **Palmer, Abraham A.**; Wood, Robin D.; Burkhart-Kasch, Sue; McKinnon, Carrie S.; Phillips, Tamara J. Reverse selection for differential response to the locomotor stimulant effects of ethanol provides evidence for pleiotropic genetic influence on locomotor response to other drugs of abuse. *Alcoholism: Clinical and Experimental Research*, **2003**, 27(10): 1535-47.
25. Yonan, Amanda L.; **Palmer, Abraham A.**; Smith, Kenneth C.; Feldman, Igor; Lee, Homin K.; Yonan, Jason M.; Fischer, Stuart G.; Pavlidis, Paul; Gilliam, T. Conrad. Bioinformatic Approach to Search for Autism Candidate Genes. *Genes, Brain and Behavior*, **2003**, 2(5): 303-20.
26. **The Complex Trait Consortium.** The Nature and Identification of Quantitative Trait Loci: a Community's View. *Nature Reviews Genetics*, **2003**, 4(11): 911-6.
27. **Palmer, Abraham A.**; Printz, David J.; Butler, Pamela D.; Dulawa, Stephanie C.; Printz, Morton P. Prenatal Protein Deprivation in Rats Induces Changes in Prepulse Inhibition and NMDA Receptor Binding. *Brain Research*, **2004**, 996(2): 193-201.
28. **Palmer, Abraham A.**; Sharpe, Amanda L.; Burkhart-Kasch, Sue; McKinnon, Carrie S.; Coste, Sarah C.; Stenzel-Poore, Mary P.; Phillips, Tamara J. Corticotropin-Releasing Factor Overexpression Decreases Ethanol Drinking and Increases Sensitivity to the Sedative Effects of Ethanol. *Psychopharmacology*, **2004**, 176(3): 386-397.
29. **The Complex Trait Consortium.** The Collaborative Cross, a community resource for the genetic analysis of complex traits. *Nature Genetics*, **2004**, 36(11): 1133-1137.
30. Meyer, Paul J.; **Palmer, Abraham A.**; McKinnon, Carrie S.; Phillips, Tamara J. Behavioral sensitization to ethanol is modulated by environmental conditions, but is not associated with cross-sensitization to allopregnanolone or pentobarbital in DBA/2J mice. *Neuroscience*, **2005**, 131(2):263-273.
31. **Palmer, Abraham A.**; Verbitsky, Miguel; Suresh, Rathi; Kamens, Helen M.; Reed, Cheryl L.; Li, Na; Burkhart-Kasch, Sue; McKinnon, Carrie S.; Belknap, John K.; Gilliam, T. Conrad; Phillips, Tamara J. Gene Expression Differences in Mice Divergently Selected for Methamphetamine Sensitivity. *Mammalian Genome*, **2005**, 16(5): 291-305.
32. Yonan, Amanda L.; **Palmer, Abraham A.**; Gilliam, T. Conrad. Hardy-Weinberg Disequilibrium Identified Genotyping Error of the Serotonin Transporter (SLC6A4) Promoter Polymorphism. *Psychiatric Genetics*, **2006** 16(1):31-34.

33. Veenstra-Vander Weele, Jeremy; Qadir, Asfia; **Palmer, Abraham A.**; Cook, Edwin H.; de Wit, Harriet. Association between the Casein Kinase 1 Epsilon gene region and subjective response to D-amphetamine. *Neuropsychopharmacology*, **2005** Oct 12; [Epub ahead of print]
34. **Palmer, Abraham A.**; Lessov-Schlaggar, Christina N.; Ponder, Christine A.; McKinnon, Carrie S.; Phillips, Tamara J. Sensitivity to the locomotor stimulant effects of ethanol and allopregnanolone: a QTL study of common genetic influence. *Genes, Brain and Behavior*, **2006**, doi:10.1111/j.1601-183X.2006.00198.x
35. Yonan, Amanda L.; Chacon, Inara; Cheng, Rong; Cayanis, Eftihia; Ross, Barbara M.; Cox, Nancy J.; **Palmer, Abraham A.**; Gilliam, T. Conrad. An Examination of the Serotonin Transporter (SLC6A4) in Autistic and Control Populations. *American Journal of Medical Genetics Part B: Neuropsychiatric Genetics*, Submitted.

Meeting Abstracts:

1. **Palmer, A. A.**; Printz, M. P. Fos Expression Defines Neural Substrates Mediating Autonomic Responses to Airpuff Startle. Society for Neuroscience, 26th Annual Conference, 1996, Washington DC, 337.15.
2. **Palmer, A. A.**; Printz, M. P. Airpuff Stress Induced Fos Expression is Different Between Genetic Hypertensive and Normotensive Rats. Society for Pharmacology and Experimental Therapeutics, 1997, San Diego, CA, 39(1): 100.
3. **Palmer, A. A.**; Printz, M. P. Fos Expression Following Airpuff Startle in Intact and Deafened Rats. International Behavioral Neuroscience Society, 6th Annual Meeting, 1997, San Diego, CA, 6:55.
4. **Palmer, A. A.**; Printz, M. P. Evidence that the Locus Coeruleus and the Nucleus of the Solitary Tract are implicated in the Pathogenesis of Aberrant Cardiovascular Response to Stressors and Thereby the Etiology of Hypertension. American Heart Association, 51st Annual Conference, 1997, Washington DC, P104.
5. Printz, D. J.; Butler, P. D.; **Palmer, A. A.**; DeSanti, L.; Rotrosen, J.; Gorman, J. M.; Printz, M. P. Effects of Prenatal Protein Deprivation on NMDA Receptor Number and Pre-Pulse Inhibition of Startle. Society for Neuroscience, 27th Annual Meeting, 1997, New Orleans, LA, 747.3.
6. **Palmer, A. A.**; Printz, M. P. Airpuff Startle Elevates Plasma ACTH in Genetic Normotensive But Not Genetic Hypertensive Rats. Society for Neuroscience, 27th Annual Meeting, 1997, New Orleans, LA, 720.10.

7. **Palmer, A. A.;** Printz, M. P. Berne Distinguished Lectureship and Mini-symposium: Genetic Dissection of Complex Cardiac Function. Rostroventrolateral Projecting and Fos Immunoreactive Neuronal Populations Following Airpuff Startle in SHR and WKY Rats. Experimental Biology, 1998, San Francisco, CA, 1890.
8. **Palmer, A. A.;** Printz, M. P. Fluorogold Injections into the Anatomically Defined C1 Cell Group Label Stress Responsive Neurons in the Midbrain and Hypothalamus: a Study in SHR and WKY Rats. Society for Neuroscience, 28th Annual Meeting, 1998, Los Angeles, CA, 246.20.
9. Printz, D. J.; **Palmer, A. A.;** Butler, P. D.; Gorman, J. M.; Rotrosen, J.; Dulawa, S. C.; Printz, M. P. Prenatal Protein Deprivation Alters Two Measures of Sensorimotor Gating. Society for Neuroscience, 28th Annual Meeting, 1998, Los Angeles, CA, 26.2.
10. Printz, M. P.; **Palmer, A. A.** Autonomic Stress Responses in Genetic Hypertension: Role of Specific Brain Regions. American Society of Hypertension, 14th Annual Meeting, 1999, New York, NY, C003.
11. **Palmer, A. A.;** Dulawa, S. C.; Flodman, P. L.; Mottiwala, A. A.; Conti, L. H.; Spence, M. A.; Geyer, MA, Printz, MP. Potential Genetic Model of Deficient Prepulse Inhibition Using the Brown Norway Rat Strain. Society for Neuroscience, 29th Annual Meeting, 1999, Miami, FL, 341.13.
12. **Palmer, A. A.;** Low, M. J.; Grandy, D. K.; Phillips, T. J. Free Choice Ethanol Drinking is Contingent on Gender and Genetic Background in Mice Deficient in Functional Dopamine D2 Receptors. Research Society on Alcoholism, 23rd Annual Meeting, 2000, Denver, CO, #549.
13. **Palmer, A. A.;** McKinnon, C.; Phillips, T. J. Allopregnanolone and Ethanol, Common Genetic Influences? Society for Neuroscience, 30th Annual Meeting, 2000, New Orleans, LA, 300.11.
14. Conti, L. H.; **Palmer, A. A.;** Vanella, J.; Printz, M. P. Latent Inhibition in Inbred Rats with Poor Prepulse Inhibition. Society for Neuroscience, 30th Annual Meeting, 2000, New Orleans, LA, 866.17.
15. **Palmer, A. A.;** Miller, M. N.; Phillips, T. J. Genetic and pharmacological relationship between locomotor response to allopregnanolone and ethanol. Oregon Chapter of the Society for Neuroscience, 1st Annual Meeting, 2001, Troutdale, OR.
16. **Palmer, A. A.;** McKinnon, C. S.; Burkhart-Kasch, S.; Bergstrom, H. C.; Phillips, T. J. Reverse Selection of Mice Selectively Bred for Differential Sensitivity to

Ethanol's Stimulant Effects. Research Society on Alcoholism, 24th Annual Meeting, 2001, Montreal, Canada #663.

17. **Palmer, A. A.**; Phillips, T. J. Sensitization to the Locomotor Stimulant Effects of Allopregnanolone Does Not Engender Cross-sensitization to Ethanol. Society for Neuroscience, 31st Annual Meeting, 2001, San Diego, CA, 572.8.
18. Bergstrom, H. C.; **Palmer, A. A.**; McKinnon, C. S.; Phillips, T. J. Shared Genetic Determinants of Sensitivity to Drugs of Abuse Revealed by Reverse Selection of the FAST and SLOW lines. Oregon Chapter of the Society for Neuroscience, 2nd Annual Meeting, 2002, Salishan, OR.
19. **Palmer, A. A.**; Low, M. J.; Grandy D. K.; Phillips T. J. Deletion of the Dopamine D2 Receptor Interacts with Genetic Background to Affect Ethanol-Induced Locomotor Stimulation, Locomotor Sensitization and Grid Test Ataxia. Society for Neuroscience, 32nd Annual Meeting, 2002, Orlando, FL, 120.6.
20. Conti, L. H.; Jirout, M.; **Palmer, A. A.**; Vanella, J. J.; Printz, M. P. Quantitative trait loci for phenotypes assessed in the elevated plus-maze test in recombinant inbred rats. Society for Neuroscience, 32nd Annual Meeting, 2002, Orlando, FL, 398.10.
21. Meyer, P.; **Palmer, A. A.**; Phillips, T. J. Examining Cross-Sensitization Between Alcohol and Other Locomotor Stimulants with Multiple Paradigms. Association for Behavior Analysis, 29th Annual Conference, 2003, San Francisco, CA, #37.
22. **Palmer, A. A.**; Verbitsky, M.; Reed, C. L.; Li, N.; Burkhart-Kasch, S.; McKinnon, C. S.; Belknap, J.K.; Gilliam, T.C.; Phillips, T.J. Bidirectional Short Term Selection and Gene Expression Micro Arrays Identify Candidate Genes for Genetic Sensitivity to Methamphetamine-Induce Locomotor Stimulation. Society for Neuroscience, 33rd Annual Meeting, 2003, New Orleans, LA, 961.17.
23. Sharpe, A. L.; **Palmer, A. A.**; Coste, S.; Stenzel-Poore, M.; Phillips, T. J. The Effect of CRH Overexpression and Deficiency on Ethanol Intake and Preference. Society for Neuroscience, 33rd Annual Meeting, 2003, New Orleans, LA, 852.10.
24. Yonan, A.L.; Alarcón, M.; Cheng, R.; Grunn, A.; **Palmer, A.A.**; Terwilliger, J.D.; Liu, J.; Cantor, R.M.; Geschwind, D.H.; Gilliam, T.C. Genomewide Screen of 345 Families for Autism Susceptibility Loci Yields Suggestive Evidence Within One Megabase of the Serotonin Transporter. Society for Neuroscience, 33rd Annual Meeting, 2003, New Orleans, LA, 647.3.
25. **Palmer, A. A.**; Verbitsky, M.; Suresh, R.; Kamens, H.M.; Reed, C.L.; Li, N.; Burkhart-Kasch, S.; McKinnon, C.S.; Belknap, J.K.; Gilliam, T.C.; Phillips, T.J. Short-Term Selection Identifies a cis-Acting Expression QTL for Casein Kinase 1

Epsilon (Csnk1e) that May Influence Sensitivity to Methamphetamine. Complex Trait Consortium, 3rd Annual Meeting, 2004, Bar Harbor, ME.

26. **Palmer, A.A.**; Ponder, C.A.; Das, K.; Gilliam T.C. Examination of Putatively Genetically Correlated Traits in Mouse Lines Divergently Selected for Differences in Fear Conditioning. Society for Neuroscience, 34th Annual Meeting, 2004, San Diego, CA 552.9.
27. Ponder, C.A.; Das, K.; Gilliam, T.C.; **Palmer, A.A.** Identification of QTL and Gene Expression Differences Using Divergent Selection for Contextual Fear Conditioning in Mice. Society for Neuroscience, 34th Annual Meeting, 2004, San Diego, CA, 552.10.
28. **Palmer, A.A.**; Ponder, C.A.; Kliethermes, K.L.; Drew, M.R.; Muller, J.M.; Das, K.; Crabbe, J.C.; Gilliam T.C. Short-Term Selective Breeding for Fear Learning. Complex Trait Consortium, 4th Annual Meeting, 2005, Groningen, The Netherlands.
29. Ponder, C.A.; Kliethermes, C.L.; Drew M.R.; Muller J.M.; Das, K.; Crabbe J.C.; Gilliam, T.; Palmer A.A. Short-term selected lines for fear conditioning: QTL, gene expression, learning and anxiety-like behaviors. Society for Neuroscience, 35th Annual Meeting, 2005, Washington DC, 316.12.
30. Palmer, A.A.; Veenstra-Vander Weele, J.; Verbitsky, M.; Suresh, R.; Qaadir, A.; Kamens, H.M.; Belknap, J.K.; Gilliam, T.C.; Cook, E.H.; Phillips, T.J.; de Wit, H. Casein kinase 1 epsilon modulates sensitivity to stimulant drugs in both mice and humans: a translational genetic study. American College of Neuropsychopharmacology, 44th Annual Meeting, 2005, Waikoloa, Hawaii.

Public Presentations, Lectures and Seminars:

- 1992-1993 **Speaker**, Department of Physiology, Monday Morning Joint Lab Meeting and Journal Club, William F. Ganong, Organizer, UCSF.
- 1994-1997 **Speaker**, Student Organized Neuroscience Journal Club, UCSD.
- 1995-1999 **Speaker**, Department of Pharmacology Research Rounds, Palmer W. Taylor, Organizer, UCSD.
- 1998 **Symposium Speaker**, Berne Distinguished Lectureship and Mini-Symposium: Genetic Dissection of Complex Cardiac Function, *“Rostrolateral Projecting and Fos Immunoreactive Neuronal Populations Following Airpuff Startle in SHR and WKY Rats.”* Kenneth R. Chien, Chair, Experimental Biology, San Francisco, CA.
- 1999 **Invited Lecture**, *“Genetic Differences in Autonomic and Behavioral Response to the Airpuff Startle Stimulus.”* Richard D. Palmiter, Host, University of Washington.
- 1999 **Invited Lecture**, *“Differential Autonomic and Behavioral Responses to Startle Stimuli in Inbred Rat Strains: Possible Implications for Hypertension and Schizophrenia.”* Tamara J. Phillips, Host, OHSU.
- 2000 **Speaker**, NIAAA/NIDA, Postdoctoral Training Grant Journal Club, Christopher L. Cunningham, Organizer, OHSU.
- 2000 **Slide Talk**, *“Allopregnanolone and Ethanol: Common Genetic Influences?”* 30th Annual Society for Neuroscience Meeting, Session Title: Drugs of Abuse: Alcohol II, Abstract 300.11, New Orleans, LA.
- 2000 **Speaker**, Department of Behavioral Neuroscience Faculty/Postdoc Monday Morning Seminar Series, John C. Crabbe, Organizer, OHSU.
- 2001 **Speaker**, OHSU, Department of Behavioral Neuroscience Postdoctoral, Seminar Series, *“Pharmacological and Genetic Studies of the Relationship Between Ethanol and Allopregnanolone.”* Christopher L. Cunningham, Organizer.
- 2001 **Symposium Speaker**, The Role of Neurosteroids in Alcohol-Related Behaviors, *“Genetic Relationship Between Ethanol- and Allopregnanolone-Induced Locomotor Behavior.”* Deborah Finn, Chair, Research Society on Alcoholism, 24th Annual Meeting, Montreal, Canada.
- 2001 **Invited Lecture**, Rockefeller University, Laboratory on the Biology of Addictive Diseases, *“Ethanol and Allopregnanolone: Pharmacological and Genetic Similarities”* Mary Jeanne Kreek, Host.
- 2001 **Slide Talk**, *“Sensitization to the locomotor stimulant effects of allopregnanolone does not engender cross-stimulation to ethanol.”* 31st Annual Society for Neuroscience Meeting, Session Title: Drugs of Abuse: Alcohol III, Abstract 572.7, San Diego, CA.
- 2002 **Slide Talk**, *“Deletion of the Dopamine D2 Receptor Interacts with Genetic Background to Affect Ethanol-Induced Locomotor Stimulation, Locomotor Sensitization and Grid Test Ataxia.”* 32nd Annual Society for Neuroscience Meeting, Session Title: Drugs of Abuse: Alcohol I, Abstract 120.6, Orlando, FL.

- 2003 **Slide Talk**, “*Gene Expression in Mouse Lines Divergently Selected for Response to Methamphetamine.*” Columbia University Department of Genetics and Development 2003 Retreat, Palisades, NY.
- 2004 **Invited Lecture**, University of Chicago, Department of Human Genetics, “*Using Selective Breeding to Identify Genes Controlling Variability in Complex Behavioral Traits.*” Carole Ober, Host.
- 2004 **Invited Lecture**, Columbia University, Sackler Institute for Developmental Psychobiology, “Use of Selective Breeding to Study Complex Traits in Mice.” Christoph Wiedenmayer, Host.
- 2005 **Invited Lecture**, Virginia Commonwealth University, Department of Pharmacology, “Using selective breeding to identify genes controlling variability in methamphetamine- and fear-related behaviors.” Kenneth Kendler, Host.
- 2005 **Invited Lecture**, University of Cincinnati, Department of Psychiatry, “Using selective breeding to identify candidate genes for methamphetamine-sensitivity and fear-related behavior.” Neil Richtand, Host.
- 2005 **Invited Lecture**, Mount Sinai School of Medical, Department of Human Genetics, “Integration of QTL mapping and gene-expression profiling in the search for behaviorally-relevant genes.” Robert J. Desnick, Host.
- 2005 **Invited Lecture**, New York University, Center for Neural Science, “Integration of selective breeding, QTL mapping and gene-expression profiling in the search for fear-learning genes in mice.” Joseph E. LeDoux, Host.
- 2005 **Slide Talk**, “Short-Term Selective Breeding for Fear Learning.” 4th Annual Meeting of the Complex Trait Consortium, Groningen, The Netherlands.
- 2005 **Invited Lecture**, University of Chicago, Department of Evolution and Ecology, “Behavioral genetic studies of methamphetamine sensitivity and fear learning in mice: a QTL/eQTL approach to finding candidate genes.” Justin Borevitz, Host.
- 2005 **Hot Topics Seminar**, American College of Neuropsychopharmacology 44th annual meeting, “Casein kinase 1 epsilon modulates sensitivity to stimulant drugs in both mice and humans: a translational Genetic Study.” Larry Siever, Chair, Waikoloa, Hawaii.
- 2006 **Invited Lecture**, Rosalind Franklin University of Medicine and Science “Translational genetic strategy for identifying genes for initial sensitivity to stimulant drugs: a combined QTL/eQTL approach.” Daniel A. Peterson, Host.
- 2006 **Symposium Speaker**, Gordon Research Conference “Genes and Behavior” Use of Genetic Selection and Gene Expression Analysis to Identify Genes and Behaviors Associated with Fear Learning in Mice.” John C. Crabbe, Symposium Organizer.
- 2006 **Invited Lecture**, University of Chicago, NIDA Training Grant Seminar, “Translational Genetic Strategy for Identifying Genes for Sensitivity to Stimulant Drugs in Mouse and Man: A Combined QTL/eQTL Approach.” Paul Vezina, Organizer.

Teaching Assistantship, Educational Forums and University Committee:

- 1993-1995 Organizer, Biomedical Sciences Graduate Student Social Hour, UCSD
- 1994-1995 Teaching Assistant, Pharmacology Dog Laboratory, UCSD
- 1994-1998 Delegate, Graduate Student Association, UCSD
- 1995-1999 Poster Presenter, Department of Pharmacology Annual Retreat, UCSD
- 1994-1998 Representative, Biomedical Science Graduate Program Core Committee, UCSD
- 1999-2001 Poster Presenter, NIDA/NIAAA Training Program Annual Retreat, OHSU
- 2000 Student, Sixth International Summer School on Behavioral Neurogenetics: Focus on Mouse Behavioral Genomics, Directed by: John Crabbe and Tamara Phillips, OHSU
- 2000 Attendee, NIAAA Workshop “*QTL Endgame: Strategies for Identification of Genes Influencing Alcohol-Related Animal Behavior.*” Robert Karp, Organizer, Rockville, MD
- 2000-2001 Presentation Evaluator, Student Research Forum, OHSU
- 2005-2006 Graduate Admissions Committee, Molecular Biosciences Cluster

Supervision and Training of Students:

John Pac, an undergraduate at UCSD, was under my supervision from 1995 to 1996. I trained John to perform immunohistochemistry, radioimmunoassays, behavioral tests, and surgical cannulations of the femoral artery and vein. John’s work was included in publications and presented at scientific meetings. John entered Temple University Medical School in the fall of 1996.

Alex Zambon, a graduate student in Biomedical Science at UCSD, was under my supervision during a rotation in Dr. Printz’s laboratory during the fall of 1996. I trained Alex in basic histological techniques and in the placement of intra-cranial guide cannula for the microinjection of CRF into the third cerebral ventricle. Alex has since earned a Ph.D. from UCSD and is a postdoctoral fellow with Dr. Bruce Conklin at UCSF.

Aziz Mottiwala, a Howard Hughes Undergraduate Summer Fellowship recipient and an undergraduate at UCSD, was under my supervision from 1997 to 1998. I supervised a study performed by Aziz that examined expression of Fos protein in tyrosine hydroxylase positive cells in the brain stem of stressed rats. Results of these studies were presented at scientific meetings. Aziz was also involved in my studies of prepulse inhibition and was included as a co-author on paper published in *Behavioral Neuroscience*. Aziz has since taken a job at Valeant Pharmaceuticals in the marketing department.

Mark N. Miller, a recipient of a VA Summer Student Fellowship Award and an undergraduate in psychology at Reed College, was under my supervision during the summer of 2000. I helped to develop and oversee Mark’s project, which assessed sensitivity to the locomotor stimulant effects of allopregnanolone in FAST and SLOW

selected mouse lines, and resulted in a publication in *Behavioral Neuroscience*. Mark finished his degree at Reed and took a job as a technician in the labs of Drs. Sacha Nelson and Gina Turrigiano at the Volen Center for Complex Systems at Brandeis University.

Michelle R. Moyer, a recipient of a VA Summer Student Fellowship Award and an undergraduate in psychology at Reed College, was under my supervision during the summer of 2001. I developed and oversaw Michelle's project, which assessed initial sensitivity, tolerance, and cross-tolerance to allopregnanolone and ethanol induced hypothermia in the HOT and COLD selected mouse lines and lead to a publication in *Psychopharmacology*.

Amanda L. Yonan, a graduate student in the Genetics and Development program at Columbia University, was partially under my supervision. Amanda's project involved the analysis of a largest sample of Autistic and Autism Spectrum Disorder patients (AGRE). Amanda published 4 papers related to her work on Autism prior to her successful these defense in the spring of 2005. She is now a lecturer at the University of Vermont.

Rathi Suresh, a graduate student in the Genetics and Development program at Columbia University, was partially under my supervision during the summer of 2003. Rathi worked with me on a project that used real time PCR to measure gene expression differences between two selectively bred mouse lines, the results of her work were published in *Mammalian Genome*. Rathi has since moved to the University of Chicago where she is continuing her thesis work.

Christine A. Ponder, a graduate student in the Genetics and Development program at Columbia University, joined Dr. Gilliam's lab in 2003 and has worked closely with me since then. Christine's project is focused on the creation of selected mouse lines for fear conditioning. Christine will use these lines to identify QTLs for the selection trait and will integrate this information with gene expression data from microarrays. The genes she identifies will be screened for polymorphisms in a large population of human subjects that have been phenotyped for fear learning. She has also examined correlated behavioral traits related to fear learning, general learning ability, and anxiety-like behavior. Christine expects to defend her thesis in 2006.