

CURRICULUM VITAE

Richard Adams Radcliffe**A. GENERAL INFORMATION**Office Address:

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Office: (303) 315-1597Lab: (303) 315-6264Cell: (303) 570-8852E-mail: Richard.Radcliffe@UCHSC.edu**B. EDUCATION**

<u>YEAR</u>	<u>INSTITUTION</u>	<u>DEGREE</u>
1984	Virginia Tech	B. S., Biology
1985-1986	University of Virginia	Teaching Certificate, Secondary School Biology
1991-1996	University of Colorado Health Sciences Center	Ph. D., Pharmaceutical Sciences

C. PROFESSIONAL EXPERIENCE

1985-1986	Laboratory Specialist in the Laboratory of Dr. Yong I. Kim at the University of Virginia, Charlottesville, Virginia
1986-1987	Math and Science Teacher at Waynesboro High School, Waynesboro, Virginia
1987-1991	Professional Research Assistant/Laboratory Manager in the Laboratory of Dr. V. Gene Erwin at the University of Colorado, Boulder, Colorado
1991-1996	Research Assistant in the Laboratory of Dr. V. Gene Erwin at the University of Colorado Health Sciences Center, Denver, Colorado
1996-1999	Research Associate in the Laboratory of Dr. Jeanne M. Wehner at the Institute for Behavioral Genetics, University of Colorado, Boulder, Colorado
1999-2001	Instructor in the Laboratory of Dr. Richard A. Deitrich in the Department of Pharmacology, University of Colorado Health Sciences Center, Denver, Colorado
2001-prsnt	Assistant Professor, Department of Pharmaceutical Sciences, University of Colorado Health Sciences Center, Denver, Colorado

D. ACADEMIC APPOINTMENTS

1999-2001	Instructor, Department of Pharmacology, University of Colorado Health Sciences Center, Denver, Colorado
2001-prsnt	Assistant Professor, Department of Pharmaceutical Sciences, University of Colorado Health Sciences Center, Denver, Colorado
2001-prsnt	Regular Graduate Faculty, University of Colorado Health Sciences Center, Denver, Colorado
2001-prsnt	Toxicology Graduate Program, Regular Faculty, University of Colorado Health Sciences Center, Denver, Colorado
2002-prsnt	Pharmaceutical Sciences Graduate Program, Regular Faculty, University of Colorado Health Sciences Center, Denver, Colorado
2002-prsnt	Institute for Behavioral Genetics, Faculty Fellow, University of Colorado, Boulder, Colorado

E. TEACHING ACTIVITY

1. Undergraduate and Graduate Courses

	<u>Course Number and Title</u>	<u>Number of 50-minute Lectures Presented</u>	<u>Number of Students Enrolled</u>
Undergraduate/ Professional			
Fall, 2000	Pharmacology & Pharmacotherapeutics II	12	80
Spring, 2001	Pharmacology & Pharmacotherapeutics II (PHRD 4740)	12	80
	Pathophysiology	1	80
Spring, 2002	IOS-1: Physiology (PHRD 3750)	12 ½	100
	IOS-8: CNS Pharmacology (PHRD 4740)	6	100
Spring, 2003	IOS-1: Physiology (PHRD 3750)	16 ½	120
	IOS-8: CNS Pharmacology (PHRD 4740)	6	120

	<u>Course Number and Title</u>	<u>Number of 50-minute Lectures Presented</u>	<u>Number of Students Enrolled</u>
Graduate			
Fall, 2000	QTL Mapping (UCB)	3	10
Spring, 2001	Graduate Pharmacology: (SOM; PHCL 7620)	2	5
Fall, 2001	Principles of Toxicology II: Nervous System Toxicology (TXCL 7323)	2	5
Winter/Spring, 2001/2002	Graduate Course Director; Physiology I, II (TXCL 7326, 7327)	N/A	3
Spring, 2002	Drug Metabolism & Pharmacogenetics (PHSC 7353)	1	10
	Graduate Pharmacology: (SOM; PHCL 7620)	3	10
	Principles of Toxicology II: Nervous System Toxicology (TXCL 7323)	2	5
Winter/Spring, 2002/2003	Graduate Course Director; Physiology I, II (TXCL 7326, 7327)	N/A	6
Spring, 2003	Drug Metabolism & Pharmacogenetics (PHSC 7353)	2	10
	Principles of Toxicology II: Nervous System Toxicology (TXCL 7323)	2	5

F. ADVISING ACTIVITY

1. Graduate Students

<u>Student</u>	<u>Role</u>	<u>Sanctioning Unit</u>	<u>Date</u>
Brante Sampe	Regular member	Pharm. Sci. (SOP)	11/01-present
David Carbone	Regular member	Pharm. Sci. (SOP)	11/01-present
Mark Reimers	Regular member	Pharm. Sci. (SOP)	11/01-present
Erik MacLaren	Regular member	Pharmacology (SOM)	1/02-present
Katherine Zolman	Research director	Pharm. Sci. (SOP)	7/02-present

<u>Student</u>	<u>Role</u>	<u>Sanctioning Unit</u>	<u>Date</u>
Chris Crowell	Chair	Pharm. Sci. (SOP)	11/02-present
Ileana Vargas	Regular member	Pharm. Sci. (SOP)	1/03-present
Amy Smith	Regular Member	Psychology (UCB)	1/03-present
Jeremy Owens	Regular Member	Psychology (UCB)	3/03-6/03
Yvonne Lentz	Regular member	Pharm. Sci. (SOP)	9/03-present

F. ADMINISTRATIVE ACTIVITY AND UNIVERSITY SERVICE

Student Ethics and Conduct Committee	Regular member	2/02-present
Toxicology Graduate Program, Student Admissions Committee	Regular member	8/02-present

I. SPECIAL ASSIGNMENTS

Facilities Committee, ACPE Accreditation, 2002
DOPS Annual Retreat Organizing Committee, 2002
Interviewer for 2002 Pharm. D. applicants
Interviewer for 2002 Toxicology graduate student applicants
Interviewer for 2002 Pharm. Sci. graduate student applicants
Interviewer for 2002 faculty candidates
DOPS Annual Retreat Organizing Committee, Chair, 2003
Interviewer for 2003 Pharm. D. applicants
Interviewer for 2003 Toxicology graduate student applicants
Interviewer for 2003 Pharm. Sci. graduate student applicants

G. HONORS

Academic Achievement Research Award, Graduate School, University of Colorado Health Sciences Center, 1992
Outstanding Presentation Award, Department of Pharmaceutical Sciences, University of Colorado Health Sciences Center, 1995
Colorado Doctoral Fellowship, 1995
Institute for Behavioral Genetics Postdoctoral Training Fellowship, 1996-1998
Faculty Fellow, Institute for Behavioral Genetics, 2002

H. PROFESSIONAL ACTIVITY AND PUBLIC SERVICE

1. Membership in Professional Organizations

Behavior Genetics Association
Research Society on Alcoholism
Society for Neuroscience
International Behavioral Neuroscience Society
International Society for Biomedical Research on Alcoholism

2. Review Panels
NIAAA Special Emphasis Panel (*ad hoc*)
3. Journal Referee
Pharmacology, Biochemistry, and Behavior
Alcoholism: Clinical and Experimental Research
Journal of Studies on Alcohol
Neuropsychopharmacology
Journal of Pharmacology and Experimental Therapeutics
Behavioral Neuroscience
Alcohol Research & Health
Molecular Psychiatry
Journal of Neurochemistry
Neuroscience
4. Editorial Board
Behavior Genetics

I. SPEAKING ENGAGEMENTS

1. Local

<u>Year</u>	<u>Organization</u>	<u>Title</u>
1999	Colorado Alcohol Research Center, Denver, CO	Genetic Studies on the Relationship Between Learning and Acute Ethanol Tolerance
2002	DOPS Annual Retreat	Studies On The Molecular Basis Of Alcoholism: Chumming The Great Genomic Sea
2002	Institute for Behavioral Genetics Annual Mouse Day	A Genomic Approach To The Study Of Single Gene Mutations: Gene Expression Profiling Of The PKC γ Knockout Mouse
2002	Institute for Behavioral Genetics Colloquium	Applications of Gene Expression Microarrays in the Study of Quantitative Behavioral Traits

2. State

3. National

<u>Year</u>	<u>Organization</u>	<u>Title</u>
2000	Keystone Symposium, Tahoe City, CA	Mapping and Confirmation of a QTL for Hypnotic Sensitivity to Ethanol on Mouse Chromosome 1
2000	QTL workshop, NIAAA, Rockville, MD	Mapping of Common QTLs for Ethanol Sensitivity and Neurotensin Receptors

4. International

<u>Year</u>	<u>Organization</u>	<u>Title</u>
1997	Annual Meeting of the Behavior Genetics Association, Toronto, Canada	Mapping QTLs for Fear Conditioning
2001	International Summer School on Behavioral Neurogenetics, Stockholm, Sweden	DNA Structure; Mapping QTLs; Gene Expression in the Brain
2002	Joint Annual Meeting of the Research Society on Alcoholism and the International Society for Biomedical Research on Alcoholism, San Francisco, California	Knockouts and Mutants: What Can we Learn from Manipulating Single Genes?
2003	Annual Meeting of the International Behavioral Neuroscience Society, San Juan, Puerto Rico	Transcriptome to Behavior: Gene Expression Profiling of the PKC γ Null Mutant Mouse
2003	Ninth International Summer School on Behavioral Neurogenetics; Toulouse, France	From QTL to Genes

J. GRANTS/RESEARCH ACTIVITY

R01 Research Grant (PI): "Gene Expression Analysis of Drug-induced Alterations in Sensitivity to Alcohol" National Institute on Alcohol Abuse and Alcoholism. Funded. \$600,000 direct. 5/1/02-4/30/05.

Seed Grant (PI): "Genetic Variation in Adult Neurogenesis" Department of Pharmaceutical Sciences, UCHSC. Funded. \$25,000 direct. 1/01/03-12/31/03.

R01 Research Grant (Co-PI; R. A. Deitrich, PI): "Selective Breeding for Ethanol Sensitivity" National Institute on Alcohol Abuse and Alcoholism. Pending. \$2,001,246 direct. 12/1/02-11/30/07.

R01 Research Grant (Co-PI; R. A. Deitrich, PI): "Genetics of Low Dose Ethanol Effects in AT and ANT Rats" National Institute on Alcohol Abuse and Alcoholism. Pending. \$1,000,000 direct. 5/01/03-4/30/06.

R03 Research Grant (PI): "Zebrafish as a Model Organism in the Study of the Molecular Basis of Acute Ethanol Tolerance" National Institute on Alcohol Abuse and Alcoholism. Pending. \$100,000 direct. 7/1/03-6/30/05.

K. PUBLICATIONS

1. Refereed Journals

- Erwin, V. G., Jones, B. C. and Radcliffe, R. Further characterization of LS X SS recombinant inbred strains of mice: Activating and hypothermic effects of ethanol. *Alcohol Clin Exp Res* 14:200-204, 1990.
- Erwin, V. G., Jones, B. C. and Radcliffe, R. Low doses of ethanol reduce neurotensin levels in discrete brain regions from LS/lbg and SS/lbg mice. *Alcohol Clin Exp Res* 14:42-47, 1990.
- Jones, B. C., Campbell, A. D., Radcliffe, R. A. and Erwin, V. G. Cocaine actions, brain levels and receptors in selected lines of mice. *Pharmacol Biochem Behav* 40:941-948, 1991.
- Erwin, V. G., Radcliffe, R. and Jones, B. C. Chronic ethanol consumption produces genotype-dependent tolerance to ethanol in LS/lbg and SS/lbg mice. *Pharmacol Biochem Behav* 41:275-281, 1992.
- Erwin, V. G., Campbell, A. D. and Radcliffe, R. A. Effects of chronic ethanol administration on neurotensinergic processes: Correlations with tolerance in LS and SS mice. *Ann NY Acad Sci* 654:441-443, 1992.
- Jones, B. C., Campbell, A. D., Radcliffe, R. A. and Erwin, V. G. Psychomotor stimulant effect of cocaine is affected by genetic makeup and experimental history. *Ann NY Acad Sci* 654:456-458, 1992.
- Jones, B. C., Reed, C. L., Radcliffe, R. A. and Erwin, V. G. Pharmacogenetics of cocaine: I. Locomotor activity and self-selection in C57BL and DBA mice. *Pharmacogenetics* 3:182-188, 1993.
- Erwin, V. G., Radcliffe, R. A., Hinkle, B. and Jones, B. C. Genetic-based differences in neurotensin levels and receptors in brains of LSXSS mice. *Peptides* 14:821-828, 1993.
- Erwin, V. G. and Radcliffe, R. A. Characterization of neurotensin-stimulated phosphatidylinositol hydrolysis in brain regions of LS and SS mice. *Brain Res* 629:59-66, 1994.
- Radcliffe, R. A. and Erwin, V. G. Alterations in locomotor activity following microinjections of GBR-12909, selective dopamine antagonists, or neurotensin into the medial prefrontal cortex. *J Pharmacol Exp Ther* 277:1467-1476, 1996.
- Erwin, V. G., Radcliffe, R. A., Gehle, V. M., and Jones, B. C. Common quantitative trait loci for alcohol-related behaviors and central nervous system neurotensin measures: Locomotor activation. *J Pharmacol Exp Ther* 280:919-926, 1997.
- Wehner, J. M., Radcliffe, R. A., Rosman, S. T., Christensen, S. C., Rasmussen, D. L., Fulker, D. F., and Wiles, M. Quantitative trait loci analysis of contextual fear conditioning in C57BL/6J X DBA/2J F2 mice. *Nature Genet* 17:331-334, 1997.
- Radcliffe, R. A., Jones, B. C., and Erwin, V. G. Mapping of provisional quantitative trait loci influencing temporal variation in locomotor activity in the LSXSS recombinant inbred strains. *Behav Genet* 28:39-47, 1998.

- Radcliffe, R. A., Walter, N. A. R., Sikela, J. M., and Erwin, V. G. Discovery of a new *Pomc1* allele in the LSXSS recombinant inbred strains: Relationship to locomotor behavior. *Behav Genet* 28:49-55, 1998.
- Radcliffe, R. A. and Erwin, V. G. Genetic relationship between central β -endorphin and novelty-induced locomotor activity. *Pharmacol Biochem Behav* 60:709-718, 1998.
- Radcliffe, R. A., Erwin, V. G., and Wehner, J. M. Acute functional tolerance to ethanol and fear conditioning are genetically correlated in mice. *Alcohol Clin Exp Res* 22:1673-1679, 1998.
- Turri, M. G., Talbot, C. J., Radcliffe, R. A., Wehner, J. M., and Flint, J. High-resolution mapping of quantitative trait loci for emotionality in selected strains of mice. *Mamm Genome* 10:1098-1101, 1999.
- Radcliffe, R. A., Lowe, M. V., and Wehner, J. M. Confirmation of contextual fear conditioning QTLs by short-term selection. *Behav Genet* 30:183-191, 2000.
- Wick, M. J., Radcliffe, R. A., Bowers, B. J., Mascia, M. P., Lüscher, B., Harris, R. A., and Wehner, J. M. Behavioral changes produced by transgenic overexpression of γ 2L and γ 2S subunits of the GABA_A receptor. *Eur J Neurosci* 12:2634-2638, 2000.
- Radcliffe, R. A., Bohl, M. L., Lowe, M. V., Cycowski, C. S., and Wehner, J. M. Mapping of quantitative trait loci for hypnotic sensitivity to ethanol in crosses derived from the C57BL/6 and DBA/2 mouse strains. *Alcohol Clin Exp Res* 24: 1335-1342, 2000.
- Vissel, B., Royle, G. A., Christie, B. R., Schiffer, H.H., Ghetti, A., Tritto, T., Perez-Otano, I., Radcliffe, R. A., Seamens, J., Sejnowski, T., Wehner, J. M., Collins, A. C., O'Gorman, S., and Heinemann, S. F. The role of RNA editing of kainate receptors in synaptic plasticity and seizures. *Neuron* 29: 217-227, 2001.
- Erwin, V. G., Radcliffe, R. A., and Deitrich, R. A. Neurotensin levels in specific brain regions and hypnotic sensitivity to ethanol and pentobarbital as a function of time after haloperidol administration in selectively-bred rat lines. *J Pharmacol Exp Ther* 299: 698-704, 2001.
- Erwin, V. G., Gehle, V. M., Davidson, K. L., and Radcliffe, R. A. Correlations and common quantitative trait loci between neurotensin receptor density and hypnotic sensitivity to ethanol. *Alcohol Clin Exp Res* 25:1699-1707, 2001.
- Malkinson, A. M., Radcliffe, R. A., and Bauer, A. K. Quantitative trait locus (QTL) mapping of susceptibilities to butylated hydroxytoluene (BHT)-induced lung tumor promotion and pulmonary inflammation in CXB mice. *Carcinogenesis* 23:411-417, 2002.
- Balogh, S. A., Radcliffe, R. A., Logue, S. F., and Wehner, J. M. Contextual fear conditioning in C57BL/6J and DBA/2J mice: context discrimination and the effects of retention interval. *Behav Neurosci* 116:947-957, 2002.
- Talbot, C. J., Radcliffe, R. A., Fullerton, J., Hitzemann, R., Wehner, J. M., and Flint, J. Fine scale mapping of a genetic locus for conditioned fear. *Mamm Genome* 14:223-230, 2003.

Bernert, H., Sekikawa, K., Radcliffe, R. A., Iraqi, F., You, M., and Malkinson, A. M *Tnfa* and *Il-10* deficiencies have contrasting effects on lung tumor susceptibility: Gender-dependent modulation of *IL-10* haploinsufficiency. *Mol Carcinog* 38:117-123, 2003.

Radcliffe, R. A., Hoffmann, S. E., Deng, X-S., Asperi, W., Fay, T., Bludeau, P., Erwin, V. G., and Deitrich, R. A. Behavioral characterization of Alcohol-tolerant and Alcohol-nontolerant rat lines and an F₂ generation. *Behav Genet* Submitted, 2003.

Radcliffe, R. A., Bowers, B. J., Smith, A. M., and Wehner, J. M. Transcriptional Profiling of the Cerebellum from PKC γ Null Mutant Mice. *J Neurochem* Submitted, 2003.

2. Nonrefereed Journals

3. Review Articles

Wehner, J. M., Radcliffe, R. A., and Bowers, B. J. Quantitative genetics and mouse behavior. *Ann Rev Neurosci* 24: 845-867, 2001.

4. Book Chapters

Deitrich, R. A., Radcliffe, R. A. and Erwin, V. G. (1996) Pharmacological effects in the development of tolerance and physical dependence. In *The Pharmacology of Alcohol and Alcohol Dependence*, Begleiter, H. and Kissin, B., eds. New York: Oxford University Press, chapter 11, pp. 431-476.

Wehner, J. M. and Radcliffe, R. A. (2001) Cued and Contextual Fear Conditioning in Mice. In *Current Protocols in Neuroscience*, Crawley, J., ed. New York: J. Wiley, chapter 8.

Wehner, J. M. and Radcliffe, R. A. (2003) Cued and Contextual Fear Conditioning in Mice. (updated version) In *Current Protocols in Neuroscience*, Crawley, J., ed. New York: J. Wiley, chapter 8.

5. Abstracts/Presentations

Erwin, V. G., Jones, B. C. and Radcliffe, R. A. (1990) Calcium-dependent stimulation of phosphoinositide hydrolysis by neurotensin in brain slices from long-sleep and short-sleep mice. *Alcohol Clin Exp Res* 14: 287.

Erwin, V. G., Iozzo, T. M., Campbell, A. D. and Radcliffe, R. (1991) Characterization of genotype-dependent acquisition of chronic tolerance and/or sensitization to ethanol-induced locomotor activation. *Alcohol Clin Exp Res* 15: 331.

Erwin, V. G., Jones, B. C. and Radcliffe, R. A. (1991) Genetic correlations among neurotensin levels and receptors and ethanol-related behaviors in LSXSS recombinant inbred strains of mice. *Alcohol Clin Exp Res* 15: 322.

Jones, B. C., Campbell, A. D., Radcliffe, R. A. and Erwin, V. G. (1991) Pharmacogenetic analysis of cocaine in mice: Behavior and neurochemistry. *FASEB J* 5: A1561.

- Jones, B. C., Radcliffe, R. A., Campbell, A. D. and Erwin, V. G. (1991) Low-dose ethanol effects: Correlated responses in recombinant inbred mice. *Alcohol Clin Exp Res* 15: 319.
- Radcliffe, R. A. and Erwin, V. G. (1991) Ethanol enhances neurotensin-induced stimulation of inositol phospholipid metabolism. *Society for Neuroscience Abstracts* 17: 422.
- Radcliffe, R. A. and Erwin, V. G. (1993) Internalization of neurotensin receptor-ligand complex in microsacs isolated from murine brain. *Society for Neuroscience Abstracts* 19: 298.15.
- Radcliffe, R. A. and Erwin, V. G. (1994) Neurotensin reverses locomotor inhibition produced by microinjections of GBR-12909 into the medial prefrontal cortex. *Society for Neuroscience Abstracts* 20: 553.11.
- Erwin, V. G., Jones, B. C., and Radcliffe, R. A. (1994) Neurotensin receptor densities correlate with ethanol induced locomotor activation in LS, SS, and LSXSS RI strains of mice. *Alcohol Clin Exp Res* 14: 480.
- Radcliffe, R. A. and Erwin, V. G. (1995) Stimulation of dopamine receptors in the medial prefrontal cortex mediates inhibition of spontaneous locomotor activity. *Society for Neuroscience Abstracts* 21: 662.18.
- Radcliffe, R. A., Walter, N. A. R., Jones, B. C., Sikela, J. M., and Erwin, V. G. (1997) QTL and the candidate gene approach: A cautionary tale. *Alcohol Clin Exp Res* 21: 93.
- Radcliffe, R. A. and Wehner, J. M. (1997) Temporal analyses of contextual fear conditioning: Further characterization of differences between C57BL/6 and DBA/2J mice. *Society for Neuroscience Abstracts* 23: 822.1.
- Owen, E. H., Radcliffe, R. A., Rosmann, S. T., Christensen, S. C., and Wehner, J. M. (1997) Mapping of genes regulating contextual fear conditioning in mice. *Society for Neuroscience Abstracts* 23: 822.4.
- Radcliffe, R. A., Erwin, V. G., and Wehner, J. M. (1998) Genetic correlation between fear conditioning and acute functional tolerance to alcohol. *Alcohol Clin Exp Res* 22: 306.
- Radcliffe, R. A. and Wehner, J. M. (1999) Gene-environment interactions influence differences in acute ethanol tolerance in B6 and D2 mice. *Alcohol Clin Exp Res*, 23: 330.
- Erwin, V. G., Gehle, V. M., Davidson, K. L., and Radcliffe, R. A. (2000) Correlations and common quantitative trait loci between neurotensin receptor density and hypnotic sensitivity to ethanol. *Alcohol Clin Exp Res* 24: 535.
- Malkinson, A. M., Radcliffe, R. A., Bauer A., and Dwyer-Nield, L. D. (2001) QTLs that regulate susceptibility to the chronic pulmonary inflammation and lung tumor promotion induced by butylated hydroxytoluene (BHT). *American Association for Cancer Research Special Oncogenomics Conference*.
- Hoffmann, S. E., Radcliffe, R. A., Deng, X-S., Fay, T., Salaz, D., Bludeau, P., and Deitrich, R. A. (2002) The re-establishment, characterization and inbreeding of Alcohol-Tolerant and Alcohol-Nontolerant Rat lines. *Alcohol Clin Exp Res* 26:575.

Radcliffe, R. A., Hoffmann, S. E., Laster, E. W., Deng, X-S., Bludeau, P., Erwin, V. G., and Deitrich, R. A. (2002) QTL mapping for acute tolerance and hypnotic sensitivity to ethanol in an F2 derived from inbred high and low alcohol sensitivity rats. *Alcohol Clin Exp Res* 26:576.

Radcliffe, R. A., Hoffmann, S. E., Deng, X-S, Bludeau, P., Fay, T., Asperi, W., Erwin, V. G., and Deitrich, R. A. (2003) Inbreeding of Alcohol-tolerant (AT) and Alcohol-nontolerant (ANT) rat lines and characterization of an F2 population. *Alcohol Clin Exp Res*

Radcliffe, R. A., Miyamoto, J., Wehner, J. M. (2003) Fine Mapping of a Chromosome 1 QTL for Fear Conditioning Using the Congenic Strategy Reveals Multiple QTL. *QTL to Gene: New strategies & recent progress for alcohol-related behaviors.*

6. Book Reviews and Letters

7. Other Publications

Radcliffe, R. A. DOPS retreat celebrates research diversity, success stories. *School of Pharmacy News* Fall 2003