Curriculum Vita

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PROFESSIONAL INTEREST:

My primary research interests are the molecular mechanisms and neuronal circuitry underlying attentional and social functioning in mouse models of psychiatric disease, particularly for disorders of emotional dysfunction and psychiatric trauma. To address these problems, I have worked with a wide variety of genetically engineered mice. In the Neuroendocrine and Behavioral Core Facility at Duke, with which I am affiliated, I am using multifaceted methods, including pharmacology and cell-signaling approaches, and behavioral studies. I believe it is critical that an attempt is made to identify deficits at each of the multiple levels of brain function. From this more integrated analyses, improved animal models of psychiatric disorders can be developed, and provide better fundamental analyses for new and innovative treatments/interventions.

EDUCATION:

University of NC - Greensboro	BA	1982-1989	Physical Anthropology Classical Archeology
	Minor		Developmental Psychobiology
University of NC - Chapel Hill	PhD	1995-2001	Developmental Psychology
Duke University Medical Center	Post-doc	2001- 2003	Neuropsychopharmacology
Duke University Medical Center	Research Associate	2003 – present	Neuropsychopharmacology

RESEARCH AND PROFESSIONAL EXPERIENCE

1983-1987	Laboratory Assistant to Professors Louise Robbins and Laura Vick, Physical Anthropology and Forensics Laboratory, UNC-Greensboro, N.C.
1987-1988	Field Assistant to Professor Laura Greer Vick, Chimpanzoo Project, N.C. Zoological Park (in collaboration with the Gombe Field Reserve), Asheboro, N.C.
1986-1989	Research Assistant and Laboratory Manager to Professor Gilbert Gottlieb, Laboratory of Developmental Psychobiology, Dept. of Psychology, UNC-Greensboro, N.C.
1990-1991	Research Assistant to L. Lyndon Key, M.D., Pediatric Endocrinology, Bowman Gray School of Medicine, Wake Forest, Winston-Salem, N.C.

1991-1995	Laboratory Research Specialist to L.Lyndon Key, Pediatric Endocrinology M.D., Medical University of S.C. at Charleston, S.C.
1995-1998	Undergraduate Instructor, Dept. of Psychology, UNC-Chapel Hill, NC. Classes taught: Research Methods in Psychology, Developmental Psychology. Supervised undergraduate honors projects/theses.
1995-2001	Graduate Student with Professors Robert B. Cairns and Jean-Louis Gariepy, Core III – Developmental Psychobiology, Center for Developmental Science, UNC-Chapel Hill, N.C.
2001 – 2004	Postdoctoral Fellow with Dr. William Wetsel, Dept. of Psychiatry and Behavioral Sciences, Mouse Behavior and Neuroendocrine Core Facility, Duke University Medical Center, Durham, NC. (Sponsor: Joseph Martinez, PhD, Neurobiology, University of Texas, San Antonio).
2004 – present	Research Associate, Dept. of Psychiatry and Behavioral Sciences, Mouse Behavior and Neuroendocrine Core Facility, Duke University Medical Center, Durham, NC.

HONORS

1991	Eli-Lilly Travel Award, Second Annual GrowthBase Collaboration and Beta-Test Site Conference, Portland, OR
1993	Eli-Lilly Travel Award, Third Annual GrowthBase Collaboration and Beta-Test Site Conference Portland, OR
1992	Elected collaborator and developer, Genentech Growth Track Beta-Test Site
1995	National Science Foundation, Honorable Mention, Predoctoral Fellowship
1995-1998	Ford Foundation Predoctoral Fellowship, National Research Council
1996	Travel Award, NIMH Conference on Developmental Plasticity, Washington, D.C., 05/96
1997	Ford Foundation Travel Award, Annual Conference of Ford Fellows, Los Angeles, CA, 10/98
1998	Harriet Rhienhold Dissertation Award, UNC-Chapel Hill
2001	Society for Neurosciences Post-Doctoral Fellowship in Neurosciences (declined)
2002-2004	American Psychological Association Post-Doctoral Fellowship in Neurosciences
2003	Post-doctoral Training Award, Woods Hole Marine Biological Laboratory, Woods Hole, MA, Summer Program in Neuroscience, Ethics, and Survival (SPINES).

INSTRUCTION/MENTORING

1987-1989: Methods and Techniques in Physical Anthropology, University of North Carolina at Greensboro, (ANTH253) – Laboratory course.

1995-1996: Methods in Research Psychology, University of North Carolina at Chapel Hill. Lecture and Laboratory Course.

1998–2000: Developmental Psychology, University of North Carolina at Chapel Hill, Lecture Course.

1998-2000: Supervision of undergraduate honors thesis: Hans Ulich, Ultrasonic vocalization and stress response in newborn mice selective breed for high and low aggression. Dept. of Developmental Psychology and the Center for Developmental Science, University of NC at Chapel Hill.

1999-2000: Supervision of Howard Hughes Undergraduate in Neuroscience Award, George Spanos, Cognitive deficits in the Dopamine Transporter Knockout Mouse. Dept. of Psychology, Duke University Medical Center.

2000-2001: Supervision of NC School Science and Math Honor Student Thesis: Russell Stackhouse, Cellular Adhesion Molecules and Learning Deficits in NCAM and L1 Knockout Mice. Mouse Behavior and Neuroendocrine Core Facility, Duke University Medical Center.

Summer 2001: Supervision of Howard Hughes High School Award in Psychiatry, Lindsey Phillips, Disruption of the Vesicular Monoamine Transporter in Mice Leads to Behavioral Despair.

2001-2002: Supervision of Howard Hughes Undergraduate in Neuroscience Award, Richard Chu, Impulsivity and Cognitive Deficits in the Dopamine Transporter Knockout Mouse, Dept. of Psychology, Duke University.

2001-2002: Supervision of NC School of Science and Math Honor Student Thesis: YoonMi Kim, Attention Deficits in the Dopamine Transporter Knockout Mouse.

Summer 2004: Supervision of Howard Hughes Undergraduate Award in Neuroscience, John W. Gilbert, Sensorimotor Gating Deficits in Synapsin III Knockout Mice: An Animal Model of Schizophrenia, Mouse Behavior and Neuroendocrine Core Facility, Duke University Medical Center.

2004-2005: Supervision of Senior Honors Thesis: Alexie Riofrio, Compulsive Like Checking Behavior in Dopamine Transporter Knockout Mice. Mouse Behavior and Neuroendocrine Core Facility, Duke University, Depts. of Cell Biology and Psychology.

2004-2005: Supervision of Senior Honor Thesis: Anna Hoffius: Temporal Deficits in Prepulse Inhibition Among Mice with Abnormalities in Monoaminergic Function. Mouse Behavior and Neuroendocrine Core Facility, Duke University, Dept. of Biology.

Summer 2005: Supervision of Methods of Behavior Student (NSF), John W. Gilbert. Compulsive Like Checking Behavior in Dopamine Transporter Knockout Mice is Mediated Through Antipsychotics. Mouse Behavior and Neuroendocrine Core Facility, Duke University, Depts. of Psychology.

Summer 2005: Supervision of Howard Hughes High School Award in Neuroscience, Hattie Chang, Amelioration of Processing Deficits in Norepinephrine Transporter (NET) Knockout (KO) Mice by Antipsychiotics and Antidepressants, Mouse Behavior and Neuroendocrine Core Facility, Duke University Medical Center.

2005-present. Supervision of Senior Honor Thesis: Erin McClellan, Deficits in the Automatic Attention Processing of Serotonin Transporter (SERT) and Norepinephrine Transporter (NET) Knockout Mice. Mouse Behavior and Neuroendocrine Core Facility, Duke University, Dept. of Psychology.

2005-present. Supervision of Senior Honor Thesis: John W. Gilbert, Compulsive and Obsessional Behaviors in the Dopamine Transporter Knockout Mouse are Differentially Mediated by Serotonin and Norepinephrine Systems: A Possible Model of Obsessive Compulsive Disorder. Mouse Behavior and Neuroendocrine Core Facility, Duke University, Dept. of Psychology.

ORAL PRESENTATIONS

(Invited Presentations and Symposia)

Rodriguiz RM, Vick LG. ChimpBasic – It's uses and applications for the study of social primates in natural habitat settings. 1st International Chimpanzoo Conference, University of NC at Greensboro and the NC Zoological Park, Asheboro, NC, June 5, 1988.

Rodriguiz RM, Key LL. Type I collagen cross-linked n-telopeptide excretion by osteopetrotic patients during interferon gamma therapy: A correlation with bone biochemical and densitometric markers. 15th Annual Scientific Meeting of the American Society for Bone and Mineral Research, Tampa Bay Convention Center, Tampa, FL, September 20, 1993.

Key LL, Rodriguiz RM. Effects of interferon gamma on the incidence of infections in osteopetrotic patients: 18 months before and following interferon gamma therapy. 11th Annual Meeting of the North American Pediatric and Mineral Working Group, 1994.

Rodriguiz RM, Abboud M, Wright N, Key LL. Use of Protropin growth hormone in children with sickle cell disease. 6th Annual Genetech National Cooperative Growth Study Conference, Scottsdale Princess Resort, Tempe, AZ, October 11, 1993.

Rodriguiz RM. The Psychobiology of the Stress Response and Issues of Control: Why Fight or Take Flight When You Can Just Flow. Annual Conference of the Ford Fellows, National Research Council, Washington, DC, October 18, 1997.

Rodriguiz RM, Gariepy JL, Strayer FF. (co-presented with Drs. Gariépy and Strayer) The reversibility of biobehavioral adaptations. Part II: the empirical evidence for the reversibility of biobehavioral adaptations. 42nd Annual Meeting of the Southeastern Psychological Association, Norfolk, VA, March 22, 1996.

Rodriguiz RM. The Mediating Effects of the Mother-Pup Interaction on the Development of the Stress Response in Mice Selectively Bred for Aggression. Annual Conference of the Ford Fellows, National Rersearch Council, Washington, DC., October 17, 1997.

Rodriguiz RM. Aberrant Behavior in the Dopamine Transporter Knockout Mouse, Brookhaven National Laboratories Biological Seminar, February 27, 2004, invited talk; sponsor John S. Gatley, Dept of Medicine.

POSTER PRESENTATIONS

R.M. Rodriguiz, W.L. Ries, L.L. Key. Use of recombinant interferon-γ in the treatment of malignant osteopetrosis. 4th Annual Genentech National Cooperative Growth Study Conference, Fort Lauderdale, FL., November 15, 1990.

R.M. Rodriguiz, W.L Ries, L.L.Key. Combined cytokine administration to ostepetrotic mice. 13th American Society of Bone and Mineral Research, San Diego, CA., San Diego Convention Center, San Diego, CA, November 1991..

R.M. Rodriguiz, J.L. Gariepy, B.C. Jones. The necessity of considering genetic background, social ecology, and early experience in the analyses of hormonal activation patterns. 14th Annual Conference of the Ford Fellows, National Research Council, Washington DC, October 13, 1995.

R.M. Rodriguiz, J. Regan, J.L. Gariepy. The effects of social interaction on the expression of genetically selected traits in high- and low-aggressive mice. French American Society for Neurobehavioral Genetics, French Embassy, Washington, DC, October 15, 1996.

R.M. Rodriguiz, B.C. Jones, J.L Gariepy. Genetic constraints on developmental plasticity and neuroendocrine systems and their coupling in a stressful situation. The NIMH Conference on Developmental Plasticity, Westfields Conference Center, Washington, DC, May 13, 1996.

R.M. Rodriguiz, B.C. Jones, J.L. Gariepy. The Malleability of Early Handling Effects in Mice Selectively Bred for Differences in Aggression. 32nd Annual Meeting of the International Society for Developmental Psychobiology, Coral Gables, FL., Oct. 21, 1999.

R.M. Rodriguiz, M.G. Caron, W.C. Wetsel. Multiple Cognitive Deficits in Dopamine Transporter Knockout Mice. 29th Annual Meeting of the Society for Neurosciences, Miami Beach, FL, Oct. 25, 1999.

R.R. Rodriguiz, R. Chu, W. Xie, M.G. Caron, W.C. Wetsel. Cognitive Deficiencies in the Dopamine Transporter Knockout Mice are Ameliorated Through Enhanced Serotonergic Tone. Platform Presentation. 30th Annual Meeting of the Society for Neurosciences, New Orleans, LA, Nov. 7, 2000.

T. Ribar, R.M. Rodriguiz, L. Khiroug, W.C. Wetsel, G.J. Augustine, A.R. Means. Cerebellar Defects in Ca^2/Calmodulin Kinase IV Deficient Mice. 30th Annual Meeting of the Society for Neurosciences, New Orleans, LA, Nov 11, 2000.

R.M. Rodriguiz, R. Stackhouse, S. Srinivasan, and W.C. Wetsel, Deficient Maternal Care Leads to Increase Pup Mortality in $Cpe^{fat/fat}$ Mice. 11th Annual Triangle Consortium for Reproductive Biology, National Institute for Environmental Health Sciences, Research Triangle Park, North Carolina, Feb 2, 2001.

R.M.Rodriguiz, R.Chu, R.D.Stout, V.M.Pogorelov, M.G.Caron, W.C.Wetsel. Impulsivity and Inattention are Features of an ADHD-Like Phenotype in Dopamine Transporter Knockout Mice. 31st Annual Meeting of the Society for Neurosciences, San Diego, CA, Nov 6, 2001.

R.M. Rodriguiz, G. K. Spanos, M.G. Caron, W.C. Wetsel. Attention Processes are Differentially Regulated Through Serotonin an Norepineprhine in the Dopamine Transporter Knockout Mouse. Dopamine 2002, Portland Oregon, July 12, 2002.

R.M.Rodriguiz, R.Chu, M.G.Caron, W.C.Wetsel. Emotional Reactivity and Perseveration Control Sociability in the Dopamine Transporter Knockout Mice. 32nd Annual Meeting of the Society for Neurosciences, Orlando, FL, Nov. 6, 2002.

P.F.Maness, K.Miller, A.K.Panicker, R.M.Rodriguez, J.R.Stackhouse, W.C.Wetsel. NCAM Transgenic Mice Display Altered Sensory Gating and Locomotor Behavior. 32nd Annual Meeting of the Society for Neurosciences, Orlando, FL, Nov. 5, 2002.

R.M. Rodriguiz, S. Srinivasan, W.C. Wetsel. Aberrant Sexual Behavior in $Cpe^{fat/fat}$mice. 12th Annual Triangle Consortium for Reproductive Biology, National Institute for Environmental Health Sciences, Research Triangle Park, North Carolina, Feb 8, 2001.

R.M. Rodriguiz, M.G. Caron, W.C. Wetsel. Prepulse and Latent Inhibition Abnormalities in the Norepinephrine Transporter Knockout Mice. 33rd Annual Meeting of the Society for Neurosciences, New Orleans, LA, Nov. 10, 2003 (Platform presentation).

W.C. Wetsel, R.M. Rodriguiz, S.X. Jiang, V.M. Pogorelov, S. Nithuairsg, C.A. Stockmeier, G. Rajkowska, M.G. Caron. Behavioral despair in vesicular monoamine transporter 2 knockout mice. 41st American College of Neuropsychopharmacology Annual Meeting, San Juan, Puerto Rico, Dec. 10, 2003.

R. Rodriguiz, M.C. Caron, J. Arnt, M. Didriksen, W.C. Wetsel. Aberrant social behavior in dopamine transporter knockout mice is controlled by blockade of the serotonin transporter and dopamine D4 receptor. 34th Annual Meeting of the Society for Neurosciences, San Diego, CA, Oct. 23, 2004

G. Vanhoof, W.C. Wetsel, R.M. Rodriguiz, M. Eldridge, M. Berben, D. Moechars, D. Ashton. Glycine transporter 1 heterozygotes display reduced anxiety in novel environments. 34th Annual Meeting of the Society for Neurosciences, San Diego, CA, Oct. 25, 2004

N. Pillai-Nair, A.K. Panicker, R.M. Rodriguiz, K. Miller, G.P. Demyanenko, J. Huang, W.C. Wetsel, P.F. Maness. NCAM-secreting transgenic mice display abnormalities in interneurons and behaviors related to schizophrenia. 34th Annual Meeting of the Society for Neurosciences, San Diego, CA, Oct. 27, 2004.

R. Rodriguiz, J.W. Gilbert, H.T. Kao, P. Greengard, B. Porton, W.C. Wetsel. Deletion of Synapsin III gene produces schizophrenia-like phenotype in mice. 35th Annual Meeting

of the Society for Neurosciences, Washington, DC, Nov. 16, 2005 (Platform presentation).

M. Fukui, R.M. Rodriguiz, S.X. Jiang, L.E. Phillips, M.G. Caron, W.C. Wetsel. A depressive-like phenotype in vesicular monoamine transporter II (VMAT2) heterozygous mice. 35th Annual Meeting of the Society for Neurosciences, Washington, DC, Nov. 12, 2005

Wetsel, W.C., Rodriguiz, R.M., Caron, M.G. Alterations in sensorimotor processing in mice with hyperdopaminergic or hypomonoaminergic tone. 44th Annual Meeting of the American College of Neuropsychopharmacology, Waikoloa, Hawaii, Dec. 13, 2005.

PUBLICATIONS

Key LL, Ries WL, Rodriguiz RM, Hatcher HC (1992). Recombinant human interferon gamma therapy of osteopetrosis, *Journal Pediatrics*, 121(1): 119-24.

Ries WL, Key LL, Rodriguiz RM (1992). Nitroblue tetrazolium reduction and bone resorption by osteoclasts in vitro are inhibited by a manganese based super-oxide dismutase mimic. *Journal of Bone and Mineral Research*, 7(8): 931-9.

Ries WL, Rodriguiz RM, Key LL (1992). Inhibitors of superoxide formation suppresses osteoclastic bone resorption invitro in mice. *Journal of Dental Research*, 71: 1035.

Key LL, Ries WL, Glasscock HC, Rodriguiz RM, Jaffee H (1993). Osteoclastic superoxide generation: taking control of bone resorption using modulators of superoxide concentrations. *International Journal of Tissue Reactions*, 14(6): 295-8.

Rodriguiz RM, Key LL, Ries WL (1993). Combination macrophage colony stimulating factor and interferon gamma administration ameliorates the osteopetrotic condition in microphthalmic (mi/mi) mice. *Journal of Pediatric Research*, 33(4): 384-9.

Key LL, Rodriguiz RM, Hatcher HC, Eyre DR, & Ries, WL (1994). Long-term treatment of osteopetrosis with interferon gamma. *Journal of Bone and Mineral Research*, 9(1): 72.

Key LL, Ries WL, Rodriguiz RM, & Darden AG (1994). Interferon gamma stimulates bone resorption in microopthalamic mice via production of superoxide by NADPH oxidase. *Journal of Bone and Mineral Research*, 9(1): 108.

Key LL, Rodriguiz RM, Willi SM, Wright NM, Hatcher HC, Cure J., Griffin P, Ries WL (1995). Use of recombinant human interferon gamma therapy in osteopetrosis: a two-year clinical trial. *New England Journal of Medicine*, 332(24): 1594-99.

Yang S, Zhang Y, Rodriguiz RM, Ries WL, Key LL (1996). Functions of the M-CSF receptor on osteoclasts, *Bone*, 18(4), 3455-60.

Darden AG, Ries WL, Wolf WC, Rodriguiz RM, Key LL (1996). Osteoclastic superoxide production and bone resorption: stimulation and inhibition by modulators of NADPH oxidase. *Journal of Bone and Mineral Research*, 11(5): 671-5.

Rodriguiz RM, Jones BC, Gariepy, JL (1998). Biobehavioral modes of adaptation in mice selectively bred for aggression: characterization, plasticity, and malleability. In D. Hahn (Ed.) *Advancing Research on Developmental Plasticity*, Rockville MD: NIMH.

Petitto JM, Gariepy JL, Gendreau PL, Rodriguiz RM, Lewis MH, Lysel DT (1999). Differences in NK cell function in mice bred for high and low aggression: genetic linkage between complex behavioral and immunological traits. *Brain, Behavior and Immunity*, 13(2): 175-186.

Ribar T, Rodriguiz RM, Khiroug L, Wetsel WC, Augustine GJ, Means AR (2000). Cerebellar defects in Ca^2/calmodulin kinase IV deficient mice. *Journal of Neuroscience*, RC107: 1-5.

Gariépy J-L, Rodriguiz RM (2002). Issues of establishment, consolidation, and reorganization in biobehavioral adaptation. *Mind and Brain*, 3: 53-77.

Gariépy J-L, Rodriguiz RM, Jones BC (2002). Handling and genetic effects on the stress system, social behavior, and dopamine function. *Pharmacology, Biochemistry, and Behavior*, 73: 7-17.

Sasaki A., Wetsel WC, Rodriguiz, RM, Meck. WH (2002). Timing of acoustic startle response in mice: habituation and dishabituation as a function of the interstimulus interval. *International Journal of Comparative Psychology*, 14(3-4): 258-268.

Haller J., Bakos N., Rodriguiz RM, Caron MG, Wetsel WC, Liposits Z (2002). Behavioral responses to social stress in noradrenaline transporter knockout mice: Effects on social behavior and depression. *Brain Research Bulletin*, 58(3): 279-284.

Rodriguiz RM, Chu R, Caron MG, Wetsel WC (2004) Aberrant responses in social interaction of dopamine transporter knockout mice. *Brain Behavioural Research* 148: 185-198

Srinivasan S, Bunch DO, Feng Y, Rodriguiz RM, Li M, Ravenell RL, Luo GX, Arimura A, Fricker LD, Eddy EM, Wetsel WC (2004) Deficits in reproduction and pro-GnRH processing in male Cpe fat mice, *Endocrinology*,. 145(4): 2023-2034.

Cawley NH, Zhou J, Hill JM, Abebe D, Romboz S, Yanik T, Rodriguiz RM, Wetsel WC, Loh PY (2004). The carboxypeptidase E knockout mouse exhibits endocrinological and behavioral deficts. *Endocrinology*, 145: 5807-5819.

Grove M, Demyanenko G, Rodriguiz RM, Quiroz ME, Martensen SA, Robinson MR, Wetsel WC, Maness PF, Pendergast AM (2004). Ablation of Abl-interactor 2 (Abi2), a novel component of early adherens junctions and dendritic spines, elicits defective cell morphology and migration in the eye and brain. *Molecular and Cellular Biology,* 24: 10905-10922

Gitler D, Takagishi Y, Feng J, Ren Y, Rodriguiz RM, Wetset WC, Greengard P, Augustine GA (2005). Different presynaptic roles of synapsins at excitatory and inhibitory synapses. *Journal of Neuroscience*, 24: 11368-11380.

Pillai-Nair N, Panicker AK, Rodriguiz RM, Foti S, Huang J, Wetsel WC, Manness PF (2005). NCAM-secreting transgenic mice display abnormalities in interneurons and behaviors related to schizophrenia. *Journal of Neuroscience,* 25: 4659-71..

Jacobsen JPR, Rodriguiz RM, Mørk A, Wetsel WC (2005) Monoaminergic dysregulation in glutathione-depleted mice. Possible relevance to schizophrenia? *Neuroscience*, 132: 1055-72.

Pogorelov VM, Rodriguiz RM, Insco1 ML, Caron MG, Wetsel WC (2005). Novelty seeking and stereotypic activation of behavior in mice with disruption of the DAT1 gene, *Neuropsychopharmacology*, 30: 1818-31. *Neuropsychopharmacology*.

Rodriguiz RM, Wetsel WC (2006) Assessment of cognitive deficits in mutant mice. In Levin ED, Buccafusco JJ (eds) *Animal Models of Cognitive Impairment*, pp. 223-282. CRC Press: Boca Raton, FL.

SOCIETIES AND AFFILIATIONS

Society for Neuroscience (SFN)
American Psychological Association (APA)
International Behavioral and Neurogenetics Association (IBANGS)
Society for the Advancement of Chicanos and Native Americans in Science (SACNAS)