CURRICULUM VITAE

Roger L. Vallejo, Ph.D.
Computational Biologist & Geneticist
U.S. Department of Agriculture, ARS
National Center for Cool & Cold Water Aquaculture
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Academic History

1997	National Institutes of Health, NIAAA, Bethesda, MD	Fellow	Population & Statistical Genetics
1993	North Carolina State University, Raleigh, NC	Ph.D.	Plant Breeding & Genetics
1983	Universidad Nacional Agraria, La Molina, Peru	M.S.	Plant Breeding & Statistics
1981	Universidad Nacional Agraria, La Molina, Peru	B.S.	Agronomy

Professional History

2005-	U.S. Department of Agriculture, ARS, NCCCWA	Computational Biologist & Geneticist
2000-2004	Penn State University, State College, PA	Assist. Prof. Genomics & Bioinformatics
1997-2000	National Institutes of Health, NIAAA, Bethesda, MD	Senior Res. Fellow Statistical Genetics
1995-1997	U.S. Department of Agriculture, ARS, ADOL	Research Geneticist
1993-1994	University of Florida, IFAS, GCREC, Bradenton, FL	Postdoctoral Fellow
1990-1993	North Carolina State University, Raleigh, NC	Research Assistant
1983-1990	International Potato Center, Lima, Peru	Associate Geneticist

Honors and Awards

2010 Award for Outstanding Performance, USDA-ARS, NCCCWA
2010 Service Award for Reviews, ADSA Board of Directors and Editors, *Journal of Dairy Science*
2009 Award for Outstanding Performance, USDA-ARS, NCCCWA
2008 Service award for statistical genetics & functional genomics data analysis, USDA-ARS, NCCCWA
2007 Award for Outstanding Performance, USDA-ARS, NCCCWA
2006 Service award for statistical genetics & functional genomics data analysis, USDA-ARS, NCCCWA
2005 Service award for statistical genetics & functional genomics data analysis, USDA-ARS, NCCCWA
1996 Award for Outstanding Research QTL mapping for Marek's disease, USDA-ARS, ADOL, East Lansing, MI
1993 Excellence in Doctoral Research, North Carolina State University, Raleigh, NC
1991 Honor Society *Pi Alpha XI, Iota* Chapter, North Carolina State University, Raleigh, NC
1980 First Class Honors, B.S. Agronomy, Universidad Nacional Agraria, Lima, Peru

Research Interests

- Bayesian methods of complex segregation analysis of complex traits in rainbow trout populations.
- Design and simulation-based power analysis of QTL mapping experiments for complex traits in outbred populations.
- Genome linkage & association scan for QTL affecting complex traits in rainbow trout populations.
- Genetic characterization of rainbow trout populations using molecular and pedigree data.
- Development of strategies for marker/gene-assisted and genomic selection in rainbow trout breeding programs.
- Transcriptome profiling using microarray and RNA-seq data and statistical analysis of gene expression data.

Research Experience

- Statistical genetics & functional genomics data analysis for a rainbow trout molecular breeding program. National Center for Cool & Cold Water Aquaculture, ARS, USDA. Kearneysville, WV, 2005- to present.
- Genetic basis of susceptibility to clinical mastitis in dairy cattle. Genomics & Bioinformatics Laboratory, Dept. Dairy & Animal Science, Pennsylvania State University, University Park, PA, 2000-2004.
- Genetic basis of vulnerability to alcoholism and related psychiatric disorders in Finnish families, Section on Population Genetics & Linkage, Laboratory of Neurogenetics, NIAAA, NIH, Bethesda, MD, 1997-2000.

- Genetic mapping of QTL affecting susceptibility to Marek's disease in chickens, Avian Disease & Oncology Laboratory, ARS, USDA, East Lansing, MI, 1995-1997.

Funded Research

2007-09 USDA-CSREES, Physical & genetic map for rainbow trout, Palti Y, RL Vallejo RL, CE Rexroad, $696,416
2002-04 USDA-CSREES, Improved Dairy Management Practices, Etherton T, Vallejo RL, $363,856
2001-03 USDA-CSREES, Milk Safety Research Program, Backman P, Vallejo RL, $350,007

Peer Reviewed Publications

Palti, Y, C Genet, MC Luo, A Charlet, G Gao, Y Hu, C Castaño-Sánchez, K Tabet-Canale, F Krieg, J Yao, **RL Vallejo** and CE Rexroad III. 2011. A first generation integrated map of the rainbow trout genome. *BMC Genomics* 12: 180.

Vallejo, RL, GD Wiens, CE Rexroad III, TJ Welch, JP Evenhuis, TD Leeds, LLG Janss, and Y Palti. 2010. Evidence of major genes affecting resistance to bacterial cold water disease in rainbow trout using Bayesian methods of segregation analysis. *J. Animal Sci*. 88: 3814-3832.

Wiens, GD and **RL Vallejo**. 2010. Temporal and pathogen-load dependent changes in rainbow trout (*Oncorhynchus mykiss*) immune response traits following challenge with biotype 2 *Yersinia ruckeri*. *Fish & Shellfish Immunology* 29: 639-647.

Leeds, TD, JT Silverstein, GM Weber, **RL Vallejo**, Y Palti, CE Rexroad III, J Evenhuis, S Hadidi, TJ Welch, and GD Wiens. 2010. Response to selection for bacterial cold water disease resistance in rainbow trout. *J. Animal Sci.* 88: 1936-1946.

Vallejo, RL, CE Rexroad III, JT Silverstein, LLG Janss and GM Weber. 2009. Evidence of major genes affecting stress response in rainbow trout using Bayesian methods of complex segregation analysis. *J. Animal Sci*. 87: 3490-3505.

Rexroad III, CE and **RL Vallejo**. 2009. Estimates of Linkage Disequilibrium and Effective Population Size in Rainbow Trout. *BMC Genetics* 10: 83.

Sanchez, CC, TPL Smith, RT Wiedmann, **RL Vallejo**, M Salem, J Yao and CE Rexroad III. 2009. Single Nucleotide Polymorphism discovery in Rainbow Trout by deep sequencing of a reduced representation library. *BMC Genomics* 10: 559.

Palti, Y, MC Luo, Y Hu, C Genet, FM You, **RL Vallejo**, GH Thorgaard, PA Wheeler and CE Rexroad III. 2009. A first generation BAC-based physical map of the rainbow trout genome. *BMC Genomics* 10: 462.

Rexroad III, C E, Y Palti, SA Gahr and **R L Vallejo**. 2008. A second generation genetic map for rainbow trout (Oncorhynchus mykiss). *BMC Genetics* 9: 74.

Weber, GM, **RL Vallejo**, SE Lankford, JT Silverstein, and TJ Welch. 2008. Cortisol Response to a Crowding Stress: Heritability and Association with Disease Resistance to *Yersinia ruckeri* in Rainbow Trout. *North Amer. J. of Aquaculture* 70: 425-433.

Silverstein, JT, **RL Vallejo**, Y Palti, TD Leeds, CE Rexroad III, TJ Welch, GD Wiens and V Ducrocq. 2008. Rainbow trout resistance to bacterial cold-water disease is moderately heritable and is not adversely correlated with growth. *J. Animal Sci.* 87: 860-867.

Gahr, SA, **RL Vallejo**, GM Weber, BS Shepherd, JT Silverstein and CE Rexroad III, 2008. Effects of short-term growth hormone treatment on liver and muscle transcriptomes in rainbow trout (Oncorhynchus mykiss). *Physiol Genomics* **32**: 380-392.

Johnson, NA, **RL Vallejo**, JT Silverstein, TJ Welch, GD Wiens, EM Hallerman and Y Palti, 2008. Suggestive Association of Major Histocompatibility IB Genetic Markers with Resistance to Bacterial Cold Water Disease in Rainbow Trout (Oncorhynchus mykiss). *Marine Biotechnology* 10: 429-437.

Johnson, NA, CE Rexroad III, EM Hallerman, **RL Vallejo** and Y Palti, 2007. Development and evaluation of a new microsatellite multiplex system for parental allocation and management of rainbow trout (*Oncorhynchus mykiss*) broodstocks. *Aquaculture* 266: 53–62.

Rexroad III CE, **RL Vallejo**, I Coulibaly, C Couch, A Garber, M Westerman and C Sullivan, 2006. Identification and characterization of microsatellites for striped bass from repeat-enriched libraries. *Conservation Genetics* 7: 971–982.

Silverstein, JT, GM Weber, CE Rexroad III and **RL Vallejo**, 2006. Genetics and Genomics-Integration of Molecular Genetics into a Breeding Program for Rainbow Trout. *Israeli J. of Aquaculture* 58: 231-237.

Rexroad III, CE, Y Palti, **RL Vallejo** and J Silverstein, 2006. Integration of molecular genetic information into the NCCCWA selective breeding program for rainbow trout. *Israeli J. of Aquaculture* 58: 323-327.

Palti, Y, MF Rodriguez, **RL Vallejo** and CE Rexroad III, 2006. Mapping of Toll-like receptor genes in rainbow trout. *Animal Genetics* 37: 597–598.

Coulibaly, I, RG Danzmann, Y Palti, **RL Vallejo**, SA Gahr, J Yao and CE Rexroad III, 2006. Mapping of genes in a region associated with upper temperature tolerance in rainbow trout. *Animal Genetics* 37: 598–599.

Radel, M, **RL Vallejo**, N Iwata, JC Long, R Aragon, M Virkkunen, and D Goldman, 2005. Haplotype-Based Localization of an Alcohol Dependence Gene to the 5q34 γ-Aminobutyric Acid Type A Gene Cluster**.** *Archives Gen. Psychiatry* 62: 47-55.

Vallejo, RL, YL Li, GW Rogers and MS Ashwell, 2003. Genetic diversity and background linkage disequilibrium in the North American Holstein cattle population. *J. Dairy Sci*. 86:4137-4147.

Vallejo, RL, LD Bacon, HC Liu, RL Witter, MAM Groenen, J Hillel and HH Cheng, 1998. Genetic mapping of quantitative trait loci affecting susceptibility to Marek's disease virus induced tumors in F_2 intercross chickens. *Genetics* 148: 349-360.

Xu, SZ, N Yonash, **RL Vallejo** and HH Cheng, 1998. Mapping quantitative trait loci for binary traits using a heterogeneous residual variance model: An application to Marek's disease susceptibility in chickens. *Genetica* 104: 171-178.

Vallejo, RL, GT Pharr, HC Liu, HH Cheng, RL Witter and LD Bacon, 1997. Non-association between *Rfp-Y* major histocompatibility complex-like genes and susceptibility to Marek's disease virus-induced tumors in 6_3 x 7_2 F_2 intercross chickens. *Animal Genetics* 28: 331-337.

Pharr, GT, **RL Vallejo** and LD Bacon, 1997. Identification of *Rfp-Y (Mhc*-like) haplotypes in chickens of Cornell lines N and P. *J. Heredity* 88: 504-512.

Cheng, HH, I Levin, **RL Vallejo**, H Khatib, JB Dodgson, LB Crittenden and J Hillel, 1995. Development of a genetic map of the chicken with markers of high utility. *Poultry Sci*. 74: 1855-1874.

Smith, EJ, HH Cheng and **RL Vallejo,** 1995. Mapping functional chicken genes: an alternative approach. *Poultry Sci.* 75: 642-647.

Vallejo, RL, WW Collins and JB Young, 1995. Inheritance of Resistance to Potato Virus Y and Potato Virus X in Hybrid *Solanum phureja-S. stenotomum* Diploid Potatoes. *J. Heredity* 86: 89-93.

Vallejo, RL, WW Collins and RD Schiavone, 1994. Genetics and Incorporation of Glandular Trichomes and Polyphenol Oxidase Activity into an Advanced *Solanum phureja-S. stenotomum* Diploid Potato Population. *J. Amer. Soc. Hort. Sci.* 119: 824-828.

Vallejo, RL, WW Collins and RH Moll, 1994. Inheritance of A and B Glandular Trichome Density and Polyphenol Oxidase Activity in Diploid Potatoes. *J. Amer. Soc. Hort. Sci.* 119: 829-832.

Vallejo, RL, WW Collins, RD Schiavone, SA Lommel and JB Young, 1994. Extreme Resistance to Infection by Potato Virus Y and Potato Virus X in an Advanced Hybrid *Solanum phureja-S. stenotomum* Diploid Potato Population. *Amer. J. of Potato Research* 71: 617-628.

Vallejo, RL and HA Mendoza, 1992. Plot Technique Studies on Sweet Potato Yield Trials. *J. Amer. Soc. Hort. Sci.* 117: 508-511.

Vallejo, RL, and S Helfgott, 1985. Determination de periodo critico de competencia de malezas en el cultivo del frijol typo Caraota (*Phaseolus vulgaris L.*) C.V. Porrillo Sintetico. *Anales Cientificos UNALM* 24: 165-175.

Published Abstracts

Vallejo, RL, CE Rexroad III, S Liu and Y Palti. 2010. Genetic management of broodstock populations with DNA markers In rainbow trout. The 9th World Congress on Genetics Applied to Livestock Production, August 1-6, 2010, Leipzig, Proceedings: http://www.kongressband.de/wcgalp2010/assets/html/0928.htm

Vallejo RL. 2003. Power to detect loci linked to common diseases of dairy cattle using identical-by-descent based methods of half-sib pair linkage analysis. *J Anim Sci* 81:160 (Suppl 1).

Radel M, **Vallejo RL**, Aragon R, Long JC, Virkkunen M, Goldman D, 2001. Analysis of $GABA_A$ receptor subunit genes in alcohol dependence and obsessive-compulsive disorder. *Am J Hum Genet* 69(4): 576 (Suppl).

Iwata N, **Vallejo RL**, Virkkunen M, Long JC, Suizuki T, Ozaki N, Goldman D. 2001. Evidence for linkage of genetic variants at the serotonin 2B receptor gene (HTR2B) with Finnish alcoholics. *Biol Psychiatry* 49: 563 (Suppl S).

Radel M, **Vallejo RL**, Iwata N, Aragon R, Naukkarinen H, Virkkunnen M, Long JC, D Goldman, 2000. Linkage and association analyses of sequence variants of the GABRA6, GABRB2 and GABRG2 gene cluster and alcohol dependence in a Finnish sample. *Am J Hum Genet* 67(4): 223 (Suppl 2).

Vallejo RL, Brooks J, Lappalainen J, Hoopes D, High TB, Wilhelm LA, Virkkunen M, Linnoila M, Goldman D, JC Long, 1999. Multi-point linkage of antisocial alcoholism to 5-HT1B receptor gene on chromosome 6 in two populations. *Alcohol Clin Exp Res* 23: 58A (Suppl).

Bergen AW, Wilhelm LA, **Vallejo RL**, Kim S, McKeane D, Robin R, Goldman D, Long JC. 1999. Association between alcohol dependence and 5-locus haplotypes on chromosome 11p15.5 in an American Indian population. *Am J Hum Genet* 65(4): 69 (Suppl).

Vallejo RL, Wilhelm LA, Hoopes D, High TB, Virkkunen M, Linnoila M, Goldman D, Long JC, 1998. Genome-wide search for

genes affecting vulnerability to alcohol dependence in Finnish pedigrees. *Am J Hum Genet* 63: 236 (Suppl).

Vallejo RL, Long JC, Hoopes D, Virkkunen M, Goldman D, Linnoila M, 1998. Autosomal genome scan for loci linked to alcohol dependence and related psychiatric disorders in Finnish pedigrees. *Alcohol Clin Exp Res* 22: 97A (Suppl).

Goldman D, Lappalainen J, **Vallejo RL**, Robin RW, Virkkunen M, Linnoila M, Long JC. 1998. Linkage of the 5HT1B serotonin receptor to antisocial alcoholism in Finns and Southwestern Indians. *Am J Med Genet* 81(6): 479.

Bacon LD, Cheng HH, **Vallejo RL**, Witter RL. 1996. Use of Recombinant Congenic Chicken Strains to Define Non-*MHC* Genes Influencing Marek's Disease Susceptibility. *Current Research on Marek's Disease*, Proceedings of 5th Internat. Sympos. on Marek's Disease, pp 63-68, East Lansing, MI. Edited by Silva RF, Cheng HH, Coussens PM, Lee LF, Velicer LF. Americ. Assoc. Avian Pathologists, Inc.

Mendoza HA, Golmirzaie AM, **Vallejo RL**, Espinoza JA, Serquen F. 1991. Breeding Potatoes for Warm Tropics. Proceedings of the workshop on *Production, Post-Harvest Technology and Utilization of the Potato in the Warm Tropics*, pp. 12-21. Edited by Govinden N, Julien MHR, Hunt GLT, Autrey LJC.

Professional Presentations

Invited Seminar titled "Segregation analysis and detection of QTL for stress response in rainbow trout" by **RL Vallejo**. Section on Statistical Genetics, Department of Biostatistics, School of Public Health, Univ. of Alabama, June 24, 2011, Birmingham, AL, USA, http://www.soph.uab.edu/ssg/ssgseminars/2011

Poster titled "Detection of quantitative trait loci affecting response to crowding stress in rainbow trout" by **RL Vallejo**, CE Rexroad III, S Liu, Y Palti, GM Weber. Gordon Research Conferences: Quantitative Genetics & Genomics, February 20-25, 2011, Galveston, TX, USA

Poster titled "Detection of QTL for spleen size and disease resistance in rainbow trout" by Y Palti, **RL Vallejo**, TJ Welch, TD Leeds, JP Evenhuis, S Liu, CE Rexroad III, GD Wiens. Plant & Animal Genome XVII, January 15-19, 2011, San Diego, CA, USA

Poster titled "Genomic analysis of the rainbow trout response to crowding" by CE Rexroad, **RL Vallejo**, S Liu, C Sanchez, J Yao, Y Palti, GM Weber. Plant & Animal Genome XVII, January 15-19, 2011, San Diego, CA, USA

Presentation titled "Genetic management of rainbow trout populations with DNA markers" by **RL Vallejo**, CE Rexroad III, S Liu, Y Palti. The 9th World Congress on Genetics Applied to Livestock Production, August 1-6, 2010, Leipzig, Germany

Invited Presentation titled "Evidence of major genes affecting bacterial cold water disease resistance in rainbow trout using Bayesian methods of complex segregation analysis" by **RL Vallejo**, GD Wiens, TJ Welch, LLG Janss, CE Rexroad III, Y Palti. Plant & Animal Genome XVII, January 9-13, 2010, San Diego, CA, USA

Poster titled "A first generation integrated physical and genetic map of the rainbow trout genome" by Y Palti, MC Luo, C Genet, Y Hu, FM Yuo, **RL Vallejo**, CE Rexroad III. Plant & Animal Genome XVII, January 9-13, 2010, San Diego, CA, USA

Invited seminar titled "Rainbow trout genetic improvement and genomic selection in aquaculture" at Graduate Program in Aquaculture, National Agricultural University La Molina, July 13, 2009, Lima, Peru

Poster titled "Evidence of major genes for resistance to bacterial cold-water disease in rainbow trout using mixed inheritance multiple-threshold model and Bayesian segregation analysis" by **RL Vallejo**, GD Wiens, TJ Welch, LLG Janss, CE Rexroad III and Y Palti. Gordon Research Conferences: Quantitative Genetics & Genomics, February 22-27, 2009, Galveston, TX, USA

Presentation titled "Characterizing the genetic diversity of rainbow trout in support of broodstock development" by CE Rexroad III, Y Palti and **RL Vallejo**. Plant & Animal Genome XVII, January 10-14, 2009, San Diego, CA, USA

Poster titled "A first generation BAC physical map of the rainbow trout genome" by Y Palti, MC Luo, Y Hu, C Genet, **RL Vallejo** and CE Rexroad III. Plant & Animal Genome XVII, January 10-14, 2009, San Diego, CA, USA

Poster titled "Characterization of linkage disequilibrium in a rainbow trout broodstock population" by CE Rexroad III and **RL Vallejo**. Plant & Animal Genome XVI, January 12-16, 2008, San Diego, CA, USA

Poster titled "Progress toward an immunogenetic map for rainbow trout" by Y. Palti, M.R. Fincham, G.D. Wiens, **R.L. Vallejo**, C.E. Rexroad III. Plant & Animal Genome XVI, January 12-16, 2008, San Diego, CA, USA

Presentation titled "Complex segregation analysis of plasma cortisol in NCCCWA rainbow trout" by **RL Vallejo**. Fish Breeder's Round Table, June 11-13, 2007, Aalesund, Norway

Poster titled "Associations of markers linked to major histocompatibility (mh) regions and to other immune response genes with disease resistance in rainbow trout" by Y Palti, NA Johnson, MR Fincham, CE Rexroad III, KE Hovatter, TJ Welch, GD Wiens, JT Silverstein, and **RL Vallejo**. Plant & Animal Genome XIV Conference, January 13-17, 2007, San Diego, CA, USA

Poster titled "Effects of recombinant bovine somatotropin (rbst) on the liver and muscle transcriptomes of high growth rate

rainbow trout (*Oncorhynchus mykiss*)" by SA Gahr, GM Weber, BS Shepherd, JT Silverstein, **RL Vallejo**, I Coulibaly and CE Rexroad III. Plant & Animal Genome XIV Conference, January 14-18, 2006, San Diego, CA, USA

Poster titled "The NCCCWA genetic map for rainbow trout" by CE Rexroad III, RG Danzmann, Y Palti, and **RL Vallejo**. Plant & Animal Genome XIV Conference, January 14-18, 2006, San Diego, CA, USA

Lecture titled "Multipoint linkage of antisocial alcoholism to 5HT1B receptor gene on chromosome 6 in two populations" by **RL Vallejo**. Presentations by Laboratory of Neurogenetics Staff (NIAAA/NIH) at 22nd Annual Scientific Meeting of the Research Society on Alcoholism, June 26-July 1, 1999, Santa Barbara, CA, USA

Platform presentation titled "Genome-wide Search for Genes Affecting Vulnerability to Alcohol Dependence in Finnish Pedigrees" by **RL Vallejo**. Presentations by Laboratory of Neurogenetics Staff (NIAAA/NIH) at The 48th Annual Meeting of The American Society of Human Genetics, October 27-31, 1998, Denver, CO, USA

Poster titled "Autosomal Genome Scan for Loci Linked to Alcohol Abuse and Related Psychiatric Disorders in Finnish Pedigrees" by **RL Vallejo**. Presentations by Laboratory of Neurogenetics Staff (NIAAA/NIH) at The Annual Meeting of The Research Society on Alcoholism, June 20-25, 1998, Hilton Head, SC, USA

Scientific & Academic Activities

- Editorial Board Member: *Journal of Dairy Science*
- Ad Hoc Reviewer: *BMC Genetics*, *Genetics*, *Journal of Animal Science*; *Journal of Animal Breeding & Genetics*; *Genetics Selection Evolution*; *Marine Biotechnology* ; *Israeli Journal of Aquaculture*; *Genetic Epidemiology*
- Grant Panel Reviewer: USDA-NRICGP; USDA-NIFA-AFRI
- Ad hoc Grant Reviewer: NSF; Israel Science Foundation; US-Israel Binational Agric. Res. & Develop.
- Adjunct Professor, Universidad Nacional Agraria La Molina, Depart. of Aquaculture & Fisheries, Lima, Peru (2009-)
- Faculty Member Penn State University (2000-2004): Center for Genome Studies; Inter-College Graduate Degree Program in Genetics; Graduate Degree Program in Animal Science

Teaching Activities (Penn State University)

GENET/STAT/ANSC 597F *Statistical Genomics: QTL Mapping in Natural Populations*, 2002-2003
ANSC 322 *Principles of Animal Breeding*, 2002
Guest Lecturer, Honors ANSC 001 *Animal Science*, 2001-2002
Guest Lecturer, ANSC 297B *Introduction to Animal Biotechnology*, 2001-2003

Congress & Workshops

- Gordon Research Conferences: Quantitative Genetics & Genomics, February 20-25, 2011, Galveston, TX, USA
- The 9th World Congress on Genetics Applied to Livestock Production, August 1-6, 2010, Leipzig, Germany
- Plant & Animal Genome XVIII, January 9-13, 2010, San Diego, CA, USA
- Gordon Research Conferences: Quantitative Genetics & Genomics, February 22-27, 2009, Galveston, TX, USA
- Plant & Animal Genome XVII, January 10-14, 2009, San Diego, CA, USA
- Plant & Animal Genome XVI, January 12-16, 2008, San Diego, CA, USA
- NRI Animal Genome Annual Investigator Meeting, January 11, 2008, San Diego, CA, USA
- Fish Breeder's Round Table, June 11-13, 2007, Aalesund, Norway
- Plant & Animal Genome XV, January 13-17, 2007, San Diego, CA, USA
- *C++ Programming I*, UC Berkeley Extension Online, February 21-August 22, 2006, Berkeley, CA, USA
- 3rd Symposium Biostatistics: Statistical Genetics & Genomics, Nov. 21-22, 2005, Univ. Washington, Seattle, WA, USA
- *Analysis of Population Genetic Data*, November 19-20, 2005, Dep. Biostatistics, Univ. Washington, Seattle, WA, USA
- *Design and Analysis of Microarrays*, November 19-20, 2005, Dep. Biostatistics, Univ. Washington, Seattle, WA, USA
- *PHP for Web Development: Hands-On*, October 31-November 1, 2005, Learning Tree International, Reston, VA, USA
- *JavaScript for Web Development: Hands-On*, August 9-12, 2005, Learning Tree International, Rockville, MD, USA
- Rainbow Trout Res. Cooperators Meeting, May10-12, 2005, NCCCWA, USDA-ARS, Morgantown, WV, USA
- BAC Fingerprinting Data Analysis, Dr. MC Luo Laboratory, April 6-8, 2005, Univ. California Davis, CA, USA
- *Systems Analysis & Design: An Overview*, January 10-April 15, 2005, UC Berkeley Extension Online, CA, USA
- The 53rd Annual Amer. Soc. Hum. Genet. Meeting, November 4-8, 2003, Los Angeles, CA, USA
- *From genome to disease: Symposium of high throughput biology*, July 23-24, 2003, NHLBI, NIH, Bethesda, MD, USA

- Meeting of Amer. Dairy Sci. Assoc. & Amer. Soc. of Animal Sci., June 22-26, 2003, Phoenix, AZ, USA
- Plant & Animal Genome XI, January 11-15, 2003, San Diego, CA, USA
- Meeting of Amer. Dairy Sci. Assoc. & Amer. Soc. of Animal Sci., July 24-28, 2001, Indianapolis, IN, USA
- *Genetics Computer Group Sequence Analysis*, January 7-9, 1999, CIT, NIH, Bethesda, MD, USA
- Scientific Meeting of Res. Soc. on Alcoholism, June 26-July 1, 1999, Santa Barbara, CA, USA
- The 48th Annual Amer. Soc. Hum. Genet. Meeting, October 27-31, 1998, Denver, CO, USA
- Scientific Meeting of Res. Soc. on Alcoholism, June 20-25, 1998, Hilton Head Island, SC, USA
- *C Language Fundamentals*, April 20-24, 1998, CIT, NIH, Bethesda, MD, USA
- *Getting Started with C Language*, March 30-April 2, 1998, CIT, NIH, Bethesda, MD, USA
- *Genetic architecture of complex traits*, December 10-11, 1997, NIGMS, NIH, Bethesda, MD, USA
- The 47th Annual Amer. Soc. Hum. Genet. Meeting, October 28-November 1, 1997, Baltimore, MD, USA
- The 6th Annual Meeting of Internat. Genet. Epidemiology Soc., October 27-28, 1997, Baltimore, MD, USA
- Gordon Res. Conference, *Quantitative Genetics and Biotechnology*, February 9-14, 1997, Ventura, CA, USA
- Plant & Animal Genome V, January 12-16, 1997, San Diego, CA, USA
- The 25th Internat. Congress on Animal Genetics, July 20-25, 1996,Tours, France
- *Computational Genomics*, November 1-6, 1995, Cold Spring Harbor, NY, USA
- *Biotechnology's role in genetic improvement of farm animals*, May 14-17, 1995, USDA-ARS, Beltsville, MD, USA

Membership in Professional Societies

International Society of Animal Genetics, 2006 -
American Association for the Advancement of Science, 1997 -
Genetics Society of America, 1995 -

Graduate and Postdoctoral Advisors

Graduate Advisor: Wanda W. Collins, North Carolina State University, Raleigh, NC
Postdoctoral Advisor: Hans H. Cheng, USDA, ARS, East Lansing, MI
Postdoctoral Advisor: Jeffrey C. Long, NIH, NIAAA, Bethesda, MD

Professional References

Ashwell, Melissa S., Ph.D., Assist. Professor, Dept. of Animal Science, North Carolina State University, Box 7621, Raleigh, NC 27695-7621. Phone (919)513-7488, Email: Melissa_Ashwell@ncsu.edu

Cheng, Hans H., Ph.D., Res. Molecular Geneticist, Avian Disease & Oncology Lab., ARS, USDA, 3606 E. Mount Hope Rd., East Lansing, MI 48823. Phone: (517)337-6758, Email: hans.cheng@ars.usda.gov

Dodgson, Jerry B., Ph.D., Professor, Dept. of Microbiology & Molecular Genetics, Michigan State University, 2215C Biomed. Phys. Sci., East Lansing, MI 48824-4320. Phone: (517) 884-5345, Email: dodgson@msu.edu

Long, Jeffrey C., Ph.D., Professor, Dept. of Human Genetics & Center for Statistical Genetics, University of Michigan Medical School, 4909 Buhl, Ann Arbor, MI 48109-0618. Phone: (734)763-3385, Email: longjc@umich.edu

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Rexroad, Caird E., Ph.D., Research Molecular Biologist, National Center for Cool & Cold Water Aquaculture, ARS, USDA, 11861 Leetown Road, Kearneysville, WV, 25430. Phone: (304) 724-8340 ext. 2101, Email: caird.rexroadiii@ars.usda.gov

Silverstein, Jeffrey T., Ph.D., National Program Leader, Aquaculture, ARS, USDA, 5601 Sunnyside Ave., Room 4-2106, Beltsville, MD 20705. Phone: (301)504-5925, Email: jeff.silverstein@ars.usda.gov

Weber, Gregory M., Ph.D., Research Physiologist, National Center for Cool & Cold Water Aquaculture, ARS, USDA, 11861 Leetown Road, Kearneysville, WV, 25430. Phone: (304) 724-8340 ext. 2131, Email: greg.weber@ars.usda.gov

Wiens, Gregory D., Ph.D., Molecular Biologist, National Center for Cool & Cold Water Aquaculture, ARS, USDA, 11861 Leetown Road, Kearneysville, WV, 25430. Phone: (304) 724-8340 ext. 2131, Email: greg.wiens@ars.usda.gov

Weiss, Kenneth M., Ph.D., Professor of Biological Anthropology & Genetics, Dept. of Anthropology, Penn State University, 523 Carpenter Building, University Park, PA 16802. Phone: (814)865-0989, Email: kmw4@psu.edu