

CURRICULUM VITAE

JASON M. LARAMIE, Ph.D.

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EDUCATION

- Boston University** Boston, MA
Doctor of Philosophy, Bioinformatics Program.
Thesis: Genetic Studies of Obesity in the
NHLBI Family Heart Study
(August 2003 – May 2007)
- Washington University** St. Louis, MO
Master of Science, Computer Science, December 2001
(August 1998 – December 2001)
- University of Missouri – Columbia** Columbia, MO
Bachelor of Science, Biology
With a minor in Chemistry, December 1997
(August 1993 – December 1997)

RESEARCH EXPERIENCE

- Pfizer Inc** Cambridge, MA
Biotherapeutics and Bioinnovation Center
Target Generation Unit
Research Technology Center
Biological Profiling Group
Principle Scientist
(Dec 2008 – Present)
- Massachusetts General Hospital** Boston, MA
Harvard Medical School
Center for Human Genetic Research
Research Fellow in Neurology
Advisor: Jim Gusella Ph.D.
(July 2007 – Present)
- Broad Institute** Boston, MA
Program in Medical and Population Genetics
Research Fellow
(July 2007 – July 2008)
- Boston University, Bioinformatics Program** Boston, MA

Ph.D. Candidate, Research Assistant

Advisors: Richard H. Myers Ph.D. and Simon Kasif Ph.D.

Studied the genetics of obesity, Parkinson disease and Huntington disease. These projects included the integration of experimental and computational methods including genetic linkage, single and multiple SNP association and biological database mining.

Supporting projects included developing a database for the storage and analysis of genetic data, the creation of a secure website for data storage and dissemination and a software package for haplotype analysis.

(August 2003 – May 2007)

NHLBI Framingham Heart Study

Boston, MA

Bioinformatics Consultant

Designed and implemented computer software to facilitate data analysis for publication and to interface with the most currently available genomic information.

(August 2006 – December 2006)

**NIGMS Inflammation and the Host Response
to Injury Glue Grant**

Boston, MA

Bioinformatics Consultant

Helped to coordinate data collection, storage, and dissemination. Designed and developed experimental data centric web pages as part of the private and semi-private website. Helped to redesign a microarray database management system to be more user-friendly to experimentalist and theorists.

(August 2003 – August 2005)

Washington University School of Medicine

St. Louis, MO

Cellular Injury and Adaptation Laboratory

Bioinformaticist

Advisor: J. Perren Cobb MD

Conducted functional genomic research on multiple organ dysfunction syndrome and sepsis. Designed, and analyzed microarray experiments. Analysis involved commercially available software and developing "in-house" algorithms. Designed and implemented a relational database for storage and tracking of clinical samples. Oversaw the training of other researchers and post-doctoral fellows on microarray research techniques.

Developed research protocols for the collection, verification and management of microarray data. Techniques include RT-PCR, microarray processing and analysis, cell culture and animal husbandry.

(December 1999 – August 2003)

Washington University School of Medicine St. Louis, MO
Lipid Research Laboratory

Research Technician

Advisor: Gustov Schonfeld MD

Investigate the pathogenesis of atherosclerosis in human cell culture and mouse animal models. Techniques used included gene cloning, RNA protection assays, DNA sequencing, liquid chromatography, microscopy, western, northern and southern blotting and cell culture.

(August 1998 – December 1999)

Ellis Fischel Cancer Hospital Columbia, MO

Clinical Laboratory Technician

Worked in the hematology, chemistry, and cytogenetic clinical laboratories. Techniques used include phlebotomy, specimen processing, urine analysis, chemical analysis, karyotyping, and microscope slide preparations.

(January 1998 – August 1998)

University of Missouri – Columbia Columbia, MO

Plant Pathology Department

Undergraduate Research Assistant

Advisor: James English Ph.D

Investigated environmental stresses and their effect on the soybean root structure using a variety of different commercial plants.

Techniques used include RFLP development, experimental design and soybean pollination.

(December 1996 – December 1997)

University of Missouri – Columbia Columbia, MO

Maize Genome Project

Undergraduate Research Assistant

Advisor: Edward Coe Ph.D

Investigated breeding mechanisms to make maize less susceptible to the insect infestation. Techniques used include subcloning, plasmid isolation, southern blotting, manual sequencing, RFLP mapping and maize pollination.

(August 1995 – August 1996)

PUBLICATIONS

Latourelle JC, Sun M, Lew MF, Suchowersky O, Klein C, Golbe LI, Mark MH, Growdon JH, Wooten GF, Watts RL, Guttman M, Racette BA, Perlmutter JS, Ahmed A, Shill HA, Singer C, Goldwurm S, Pezzoli G, Zini M, Saint-Hilaire MH, Hendricks AE, Williamson S, Nagle MW, Wilk JB, Massood T, Huskey KW, **Laramie JM**, DeStefano AL, Baker KB, Itin I, Litvan I, Nicholson G, Corbett A, Nance M, Drasby E, Isaacson S, Burn DJ, Chinnery PF, Pramstaller PP, Al-hinti J, Moller AT, Ostergaard K, Sherman SJ, Roxburgh R, Snow B, Slevin JT, Cambi F, Gusella JF, Myers RH. The Gly2019Ser mutation in LRRK2 is not fully penetrant in familial Parkinson's disease: the GenePD study. *BMC Med.* 2008 Nov 5;6:32.

Tobin JE, Latourelle JC, Lew MF, Klein C, Suchowersky O, Shill HA, Golbe LI, Mark MH, Growdon JH, Wooten GF, Racette BA, Perlmutter JS, Watts R, Guttman M, Baker KB, Goldwurm S, Pezzoli G, Singer C, Saint-Hilaire MH, Hendricks AE, Williamson S, Nagle MW, Wilk JB, Massood T, **Laramie JM**, DeStefano AL, Litvan I, Nicholson G, Corbett A, Isaacson S, Burn DJ, Chinnery PF, Pramstaller PP, Sherman S, Al-hinti J, Drasby E, Nance M, Moller AT, Ostergaard K, Roxburgh R, Snow B, Slevin JT, Cambi F, Gusella JF, Myers RH. Haplotypes and gene expression implicate the MAPT region for Parkinson disease: the GenePD Study. *Neurology.* 2008 Jul 1;71(1):28-34.

Laramie JM, Wilk JB, Williamson SL, Nagle MW, Latourelle JC, Tobin JE, Province MA, Borecki IB, Myers RH. Polymorphisms near EXOC4 and LRGUK on chromosome 7q32 are associated with Type 2 Diabetes and fasting glucose; the NHLBI Family Heart Study. *BMC Med Genet.* 2008 May 22;9:46.

Wilk JB, **Laramie JM**, Latourelle JC, Williamson S, Nagle MW, Tobin JE, Foster C, Eckfeldt JH, Province MA, Borecki IB, Myers RH. NYD-SP18 is associated with obesity in the NHLBI Family Heart Study. *Int J Obes (Lond).* 2008 Jun;32(6):930-5.

Tobin JE, Latourelle JC, Lew MF, Klein C, Suchowersky O, Shill HA, Golbe LI, Mark MH, Growdon JH, Wooten GF, Racette BA, Perlmutter JS, Watts R, Guttman M, Baker KB, Goldwurm S, Pezzoli G, Singer C, Saint-Hilaire MH, Hendricks AE, Williamson S, Nagle MW, Wilk JB, Massood T, **Laramie JM**, DeStefano AL, Litvan I, Nicholson G, Corbett A, Isaacson S, Burn DJ, Chinnery PF, Pramstaller PP, Sherman S, Al-hinti J, Drasby E, Nance M,

Moller AT, Ostergaard K, Roxburgh R, Snow B, Slevin JT, Cambi F, MD, Gusella JF, Myers RH. Haplotypes and gene expression implicate the MAPT region for Parkinson disease: The GenePD Study. *Neurology*. 2008 Jul 1;71(1):28-34.

Laramie JM, Chung TP, Brownstein BH, Stormo GD, Cobb JP. Transcriptional Profiles of Human Epithelial Cells in Response to Heat: Computational evidence for Novel Heat Shock Proteins. *Shock*. 2007 Sep 20.

Laramie JM, Wilk JB, DeStefano AL, Myers RH. HaploBuild: An algorithm to construct noncontiguous associated haplotypes in family-based genetic studies. *Bioinformatics*. 2007 Aug 15;23(16):2190-2.

Wilk JB, Walter RE, **Laramie JM**, Gottlieb DJ, O'Connor GT. Framingham Heart Study genome wide association: Results for pulmonary function measures. *BMC Med Genet*. 2007, 8(Suppl 1):S8.

Cupples, L.A., Arruda, H., Benjamin, E., D'Agostino, R., Demissie, S., DeStefano, A., Dupuis, J., Falls, K., Fox, C., Gottlieb, D., Govindaraju, D., Guo, C.-Y., Heard-Costa, N., Hwang, S.-J., Kathiresan, S., Kiel, D., **Laramie, J.**, Larson, M., Levy, D., Liu, C.-Y., Lunetta, K., Mailman, M., Manning, A., Meigs, J., Murabito, J., Newton-Cheh, C., O'Connor, G., O'Donnell, C., Pandey, M., Seshadri, S., Vasan, R., Wang, Z., Wilk, J., Wolf, P., Yang, Q. and Atwood, L. (2007) The Framingham Heart Study 100K SNP genome-wide association study resource: overview of 17 phenotype working group reports, *BMC Med Genet*, 8, S1.

Tobin JE, Cui J, Wilk JB, Latourelle JC, **Laramie JM**, McKee AC, Guttman M, Karamohamed S, DeStefano AL, Myers RH. Septapterin reductase expression is increased in Parkinson's disease brain tissue. *Brain Res*. 2007 Mar 30;1139:42-7.

Chung TP, **Laramie JM**, Meyer DJ, Downey T, Tam LH, Ding H, Buchman TG, Karl I, Stormo GD, Hotchkiss RS, Cobb JP. Molecular diagnostics in sepsis: from bedside to bench. *J Am Coll Surg*. 2006 Nov; 203(5):585-598.

Laramie JM, Wilk JB, Hunt SC, Ellison RC, Chakravarti A, Boerwinkle E, Myers RH. Evidence for a gene influencing heart rate on chromosome 5p13-14 in a meta-analysis of genome-wide

scans from the NHLBI Family Blood Pressure Program. *BMC Med Genet.* 2006 Mar 1;7:17.

McDunn JE, Chung TP, **Laramie JM**, Townsend RR, Cobb JP. Physiologic genomics. *Surgery.* 2006 Feb;139(2):133-9.

Seong IS, Ivanova E, Lee JM, Choo YS, Fossale E, Anderson M, Gusella JF, **Laramie JM**, Myers RH, Lesort M, MacDonald ME. HD CAG repeat implicates a dominant property of huntingtin in mitochondrial energy metabolism. *Hum Mol Genet.* 2005 Oct 1;14(19):2871-80.

Dilley WG, Kalyanaraman S, Verma S, Cobb JP, **Laramie JM**, Lairmore TC. Global Gene Expression in Neuroendocrine Tumors from Patients with the MEN1 Syndrome. *Mol Cancer.* 2005 Feb 3;4(1):9.

Wizorek JJ, Coopersmith CM, **Laramie JM**, Tong A, Stromberg PE, Hotchkiss RS, Buchman TG, Cobb JP. Sequence makes a Difference: Paradoxical Effects of Stress in vivo. *Shock* 2004 Sept;22 (3):229-233.

Dasu RK, Cobb JP, **Laramie JM**, Chung TP, Spies M, Barrow RE. *Gene Expression Profiles of Livers from Thermally Injured Rats.* *Gene* 2004; Feb 18; 327(1): 51-60.

Feezor RJ, Baker HV, Mindrinos M, Hayden D, Tannahill CL, Brownstein BH, Fay A, MacMillan SK, **Laramie JM**, Xiao W, Moldawer LL, Cobb JP, Miller-Graziano CL, Maier RV, Schoenfeld D, Davis RW, Tompkins RG. Whole Blood and Leukocyte RNA Isolation for Gene Expression Analyses. *Physiological Genomics* 19: 247-257, 2004.

Chung TP, **Laramie JM**, Cobb JP. Functional Genomics of Critical Illness and Injury. *Critical Care Medicine.* 2002 Jan;30(1 suppl):S51-7.

Cobb JP, **Laramie JM**, Stormo GD, Morrissey JJ, Shannon WD, Qiu Y, Karl IE, Buchman TG, Hotchkiss RS. Sepsis Gene Expression Profiling: Murine Splenic Compared to Hepatic Responses Determined using cDNA Microarrays. *Critical Care Medicine*, 2002; 30(12):2711-2721.

Cobb JP, Brownstein BH, Watson MA, Shannon WD, **Laramie JM**, Qiu Y, Stormo GD, Morrissey JJ, Buchman TG, Karl IE, and

Hotchkiss RS. Injury in the Era of Genomics. *Shock* 15:165-170, 2001.

PRESENTATIONS
& POSTERS

Laramie JM, Chung TP, Qiu Y, Brownstein B, Buchman TG, Stormo GD, Gu C, Province MA, Cobb J. Gene Expression Profiles of Human Epithelial Cells in Response to Heat Characterized Using High-Density Oligonucleotide Microarrays. Twenty-Fifth Annual Conference on Shock, Big Sky, MT. June 2002.

Laramie JM, Chung TP, Qiu Y, Brownstein B, Buchman TG, Stormo GD, Gu C, Province MA, Cobb J. Gene Expression Profiles of Human Epithelial Cells in Response to Heat Characterized Using High-Density Oligonucleotide Microarrays. NIH Symposium, Functional Genomics of Critical Injury. Bethesda, MA. April 2002.

Laramie JM, Wilk JB, DeStefano A, Myers RH. HaploBuild: A Program for Constructing Haplotypes from High Density SNP Genotype Data. Research in Computational Molecular Biology. Cambridge, MA. May 2005.

TEACHING
EXPERIENCE

Boston University, Bioinformatics Program Boston, MA

Computational Genomics, Teaching Assistant
(August 2004 – December 2004)

TECHNICAL
EXPERIENCE

PCR, plasmid DNA isolation, RNA isolation, southern, northern, western blots, RNA protection assays, colony hybridization, cloning, TLC chromatography, agarose gel electrophoresis, page, protein electrophoresis (stacking gel), auto radiography, cell culture, DNA sequencing (automated and manual), genomic DNA isolation, in vitro transcription and translation, transformation, ion exchange and exclusion columns, immunoprecipitation, karyotyping, slide preparation, quantitative real-time PCR, cDNA synthesis, RNA isolation.

COMPUTER
EXPERIENCE

Mac OS X, Windows, Unix, Linux, MySQL, C/C++, JAVA, HTML, PERL, SQL, CGI, PHP, CSS, R Statistical Language, SAS Statistical Language, APACHE II web server

AWARDS AND
HONORS

Dean's List, University of Missouri – Columbia (Fall 1997 - Fall 1998)

Pfizer Target Generation Unit Individual Award (Winter 2008)

