

Taylor Maxwell

Curriculum Vitae

Phone: 713.500.9896 Fax: 314.500.0900
Taylor.J.Maxwell@uth.tmc.edu

Human Genetics Center
RAS room E531
University of Texas Health Science Center at Houston
Human Genetics Center
1200 Herman Pressler
Houston, Texas 77030

Education:

- 2000 – 2006 Ph.D., Evolution, Ecology and Population Biology Program,
Division of Biology and Biomedical Sciences,
Washington University in St. Louis, St. Louis MO,
Title: *Applications of Evolutionary Theory to Genotype/Phenotype
Association Studies.*
Adviser: Alan Templeton
- 5/16-5/17/06 Programs in Genomics Applications Traveling Tutorials,
Washington University, St. Louis MO
- 6/2-6/6/04 North Carolina State Statistical Genetics Summer Institute,
“Association Studies” and “Genetics and Clinical Trials”
modules
- 1996 – 2000 B.S. Zoology, Brigham Young University, Provo, UT

Academic Employment:

- 2007 – Present Assistant Professor, Human Genetics Center, School of Public
Health, University of Texas Health Sciences Center at Houston.
- 2006 – 2007 Postdoctoral Fellow, Department of Anatomy and Neurobiology,
Washington University in St. Louis, PI: James Cheverud.

Academic Service:

6/07 Referee for *The Journal of Bioinformatics*
9/05 Referee for *The Journal of Bioinformatics*
7/21/05 BioMedRAP chalk talk for undergraduate summer interns
3/03 Referee for *The Journal of Molecular Biology and Evolution*

Professional Experience:

6/99 – 8/99 Intern, NSF Research Experience for Undergraduates at the
American Museum of Natural History, New York City, NY
8/98 – 8/00 Lab assistant, BYU DNA sequencing center, Provo, UT

Teaching Experience:

9/05 – 12/05 Teaching Assistant, Population Genetics (Bio 4181), Dept. of
Biology, Washington University, St. Louis, MO
4/20/04 Lecture on Human Evolution, Non-majors, Washington University,
St. Louis, MO
3/18/04 Lecture on Complex Traits for Non-majors, Washington University,
St. Louis, MO
8/03 – 12/03 Teaching Assistant, Principles of Biology II (Bio 2970), Dept. of
Biology, Washington University, St. Louis, MO
8/01 – 12/01 Teaching Assistant, Fundamentals of Biology II (Bio 297), Dept. of
Biology, Washington University, St. Louis, MO

Honors and Awards:

June 2003 Scholarship for NC State Statistical Genetics Summer Institute
2000-2003 NSF Predoctoral Fellowship
2000 Undergraduate Research Scholarship (ORCA), BYU, Provo, UT
1999 Undergraduate Research Scholarship (ORCA), BYU, Provo, UT
1999 NSF REU Site Program Internship, American Museum of Natural
History, New York City, NY

Peer Reviewed Publications:

Yonghong, L., A. Grupe, C. Rowland, P. Nowotny, J. S. K. Kauwe, S. Smemo, A. Hinrichs, K. Tacey, T. A. Toombs, S. Kwok, J. Catanese, T. J. White, **T. J. Maxwell**, P. Hollingworth, R. Abraham, D. Rubinzstein, C. Brayne, F. W. De Vrieze, J. Hardy, M. O'Donovan, S. Lovestone, J. C. Morris, L. J. Thal, M. Owen, J. Williams, A. Goate, 2006. DAPK1 variants are associated with Alzheimer's disease and allele-specific expression. *Human Molecular Genetics* 15: 2560-2568.

- Grupe, A., Y. Li, C. Rowland, P. Nowotny, A.L. Hinrichs, S. Smemo, J.S.K. Kauwe, **T.J. Maxwell**, S. Cherny, L. Doil, K. Tacey, R. van Luchene, A. Myers, F.W. Vriexe, M. Kaleem, P. Hollingworth, L. Jehu, C. Foy, N. Archer, G. Hamilton, P. Homans, C. M. Morris, J. Catanese, J. Sninsky, T.J. White, J. Powell, J. Hardy, M. O'Donovan, S. Lovestone, L. Jones, J.C. Morris, L. Thal, M. Owen, J. Williams, A. Goate, 2006. A scan of chromosome 10 identifies a novel locus showing strong association with Late-Onset Alzheimer disease. *American Journal of Human Genetics* 78: 78-88.
- Maxwell, T.J.**, M. M. Ameyaw, S. Pritchard, N. Thornton, G. Folayan, J. Githanga'a, A. Indalo, M. Tariq, A. Mobarek, D.A.P. Evans, D. Ofori-Adjei, A.R. Templeton, H.L. McLeod, 2005. Beta-2 adrenergic receptor genotypes and haplotypes in different ethnic groups. *International Journal of Molecular Medicine* 16: 573-580.
- Nowotny, P., A.L. Hinrichs, S. Smemo, J.S.K. Kauwe, **T. Maxwell**, P. Holmans, M. Hamshere, D. Turic, L. Jehu, P. Hollingsworth, P. Moore, L. Bryden, A. Myers, L.M. Doil, K.M. Tacey, A.M. Gibson, I.G. McKeith, R.H. Perry, C.M. Morris, L. Thal, J.C. Morris, M.C. O'Donovan, S. Lovestone, A. Grupe, J. Hardy, M.J. Owen, J. Williams, A. Goate, 2005. Association studies between risk for late-onset Alzheimer's disease (LOAD) and variants in Insulin Degrading Enzyme. *American Journal of Medical Genetics Part B (Neuropsychiatric Genetics)* 136B: 62-68.
- Posada, D., **T.J. Maxwell**, A.R. Templeton, 2005. Treescan: a bioinformatics application to search for genotype/phenotype associations using haplotype trees. *Bioinformatics* 21: 2133-2135.
- Templeton, A. R., **T. Maxwell**, D. Posada, J.H. Stengård, E. Boerwinkle, C. Sing, 2005. Tree Scanning: A method using haplotype trees in genotype/phenotype association studies. *Genetics* 169: 441-453.
- Whiting, M. F., S. Bradler, **T. Maxwell**, 2003. Loss and recovery of wings in stick insects. *Nature* 421: 264-267. (Cover article).

Manuscripts in Preparation:

- Maxwell, T. J., K. E. Hyma, L. C. Shimmin, E. Boerwinkle, J. E. Hixson, A. R. Templeton. The impact of nonrandom mutation, recombination, and gene conversion on shaping haplotype variation in the KLK region of Human Chromosome 19 and its implications for association studies. Manuscript in preparation.
- Maxwell, T. J., A. R. Templeton, *et al.* Treescanning, Apolipoprotein E, and multivariate inference. Manuscript in preparation.

Maxwell, T. J., A. R. Templeton, *et al.* High-Density Lipoprotein (HDL) and genetic variation at the Cholesteryl Ester Transfer Protein (CETP) Gene. Manuscript in preparation

Presentations:

Maxwell, T.J. Analysis of Sequence Data: Treescanning. *ARIC Genetic Epidemiology Workshop.* University of Texas Health Sciences Center at Houston, School of Public Health, Human Genetics Center. Houston, TX, June 11, 2007.

Maxwell, T.J. Using evolutionary theory to study factors shaping the structure of local genetic variation and their implications for association studies. University of Texas Health Sciences Center at Houston, School of Public Health, Human Genetics Center. Houston, TX, March 5, 2007.

Maxwell, T.J., K.E. Hyma, A.R. Templeton. Mutagenic motifs, recurrent mutation, and how they affect association studies. *CREATE Pharmacogenetics Research Network Meeting,* Washington University, St. Louis, MO. March 2, 2006.

Maxwell, T.J., K.E. Hyma, L.C. Shimmin, E. Boerwinkle, J.E. Hixson, A.R. Templeton. Mutagenic motifs, recurrent mutation, infinite sites, and the sampling of SNPs in human association studies. Poster. *NIGMS Pharmacogenetics Research Network (PGRN) II steering committee meeting.* St. Louis, MO, December 5, 2005.

Maxwell, T.J., K.E. Hyma, L.C. Shimmin, E. Boerwinkle, J.E. Hixson, A.R. Templeton. Mutagenic motifs, recurrent mutation, infinite sites, and the sampling of SNPs in human association studies. Poster. *American Society of Human Genetics meeting.* Salt Lake City, Utah, October 25-29, 2005.

Maxwell, T.J., A.R. Templeton. Evolutionary structural approaches. Retreat for Functional Polymorphism analysis in Drug Pathways and CREATE Pharmacogenetics Research Network Meeting, Innsbrook Resort, Innsbrook MO, March 18, 2005.

Maxwell, T.J., A.R. Templeton. Treescan: A method using haplotype networks to direct genotype/phenotype association studies. Poster. *American Society of Human Genetics meetings,* Toronto, Canada, October 26-30, 2004.

Maxwell, T.J. Treescanning strategy. *MICORTEX network meeting.* University of Michigan. Ann Arbor, MI, August 16, 2004.

Maxwell, T.J. Treescanning and epistasis. *MICORTEX Epistasis meeting.* University of Michigan. Ann Arbor, MI, August 15, 2004.

Maxwell, T. J. Using evolutionary theory to guide genotype/phenotype association studies in candidate gene regions. *Ecology, Evolution, and Population Biology Program Student Seminar*, Washington University, St. Louis, MO, April 1, 2004.

Maxwell, T. J. Treescan: A method using haplotype networks to direct genotype/phenotype association studies. *Retreat for Functional Polymorphism analysis in Drug Pathways and CREATE Pharmacogenetics Research Network Meeting*, Hyatt Regency Hotel, St. Louis, MO. May 23, 2003.

Maxwell, T. J. Treescan: A method using haplotype networks to direct genotype/phenotype association studies. *CREATE Pharmacogenetics Research Network Meeting*, Washington University, St. Louis, MO. March 27, 2003.

Maxwell, T.J. Studying variation in drug response in cancer patients relative to biochemical pathways is essentially a genotype-phenotype association study. *CREATE Pharmacogenetics Bioinformatics Meeting*, Washington University, St. Louis, MO. December 12, 2002.

Maxwell, T.J. Utilizing gene trees to associate genetic variation with trait variation. *Classification Society of North America Conference*, St. Louis, MO. June 17, 2001.