

Peter B. Chi

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Education

2013	Ph.D. Biostatistics (with Statistical Genetics Pathway)	University of Washington
2006	M.H.S. Genetic Epidemiology	Johns Hopkins University
2003	B.S. Cellular & Molecular Biology (Minor: Statistics)	University of Michigan

Professional Experience

2015-present	Assistant Professor of Statistics	Department of Math and CS, Ursinus College
2013-2015	Assistant Professor	Department of Statistics, Cal Poly San Luis Obispo

Refereed Publications

Chi PB, Chattopadhyay S, Lemey P, Sokurenko EV, Minin VN. *Synonymous and nonsynonymous distances help untangle convergent evolution and recombination*. Revisions submitted to Statistical Applications in Genetics and Molecular Biology on 3/30/15.

Chi PB, Duncan AE, Kramer PA, Minin VN. *Heritability estimation of osteoarthritis in the pig-tailed macaque (*Macaca nemestrina*) with a look toward future data collection*. PeerJ. 2014; 2:e373; DOI 10.7717/peerj.373

Tsuang DW, Millard SP, Ely B, Chi P, Wang K, Raskind WH, Kim S, Brkanac Z, Yu CE. *The effect of algorithms on copy number variant detection*. PLoS One. 2010;5(21): e14456.

Li G, Peskind ER, Millard SP, Chi P, Sokal I, Yu CE, Bekris ML, Raskind MA, Galasko DR, Montine TJ. *Cerebrospinal fluid concentration of brain-derived neurotropic factor and cognitive function in non-demented subjects*. PLoS One. 2009;4(5): e5424.

Gao L, Grant AV, Rafaels N, Stockton-Porter M, Watkins T, Gao P, Chi P, Muñoz M, Watson H, Dunston G, Toggias A, Hansel N, Sevransky J, Maloney JP, Moss M, Shanholtz C, Brower R, Garcia JG, Grigoryev DN, Cheadle C, Beaty TH, Mathias RA, Barnes KC. *Polymorphisms in the myosin light chain kinase gene that confer risk of severe sepsis are associated with a lower risk of asthma*. Journal of Allergy and Clinical Immunology. 2007 May;119(5): 1111-8.

Chi PB, Duggal P, Kao WH, Mathias RA, Grant AV, Stockton ML, Garcia JG, Ingersoll RG, Scott AF, Beaty TH, Barnes KC, Fallin MD. *Comparison of SNP tagging methods using empirical data: association study of 713 SNPs on chromosome 12q14.3-12q24.21 for asthma and total serum IgE in an African Caribbean population*. Genetic Epidemiology. 2006 Nov;30(7): 609-19.

Barnes KC, Grant A, Gao P, Baltadjieva D, Berg T, Chi P, Zhang S, Zambelli-Weiner A, Ehrlich E, Zardkoohi O, Brummet ME, Stockton M, Watkins T, Gao L, Gittens M, Wills-Karp M, Cheadle C, Beck LA, Beaty TH, Becker KG, Garcia JG, Mathias RA. *Polymorphisms in the novel gene acylorxyacyl hydroxylase (AOAH) are associated with asthma and associated phenotypes*. Journal of Allergy and Clinical Immunology. 2006 Jul;118(1): 70-7.

External Presentations

Statistical Pitfalls in Medical Research: Should We Abandon the p-value? Invited seminar at the Endocrine Grand Rounds, University of California, Irvine School of Medicine; Irvine, CA. Mar 2015.

Statistical Pitfalls in Medical Research: Can Bayes Theorem Save Us? Invited seminar at the Endocrine Grand Rounds, VA San Diego Healthcare System (VAMC); La Jolla, CA. Sep 2014.

Least Squares Phylogenetic Inference Without Distances. Contributed talk at the Joint Statistical Meetings (JSM); Boston, MA. Aug 2014.

Heritability Estimation of an Ordinal Trait: Osteoarthritis in Pig-tailed Macaques. Contributed for the Student Paper Competition at the WNAR/IMS Meeting; Colorado State University, Fort Collins, CO. Jun 2012.

Untangling Recombination and Convergent Evolution: A Phylogenetic Approach. Seminar Series at the Institute for Pure and Applied Mathematics (IPAM); Long Program in Mathematical and Computational Approaches in High-Throughput Genomics. University of California Los Angeles; Los Angeles, CA. Nov 2011.

Statistical Phylogenetics: An Approach to Studying Cancer Cell Lineages. Invited seminar at the Department of Statistics Colloquium Series, California Polytechnic State University; San Luis Obispo, CA. Nov 2011.

Heritability Estimation for a Complex Categorical Trait: Pig-tailed Macaques and the Threshold Model. Contributed talk at the WNAR/IMS Meeting; California Polytechnic State University, San Luis Obispo, CA. Jun 2011.

Internal Presentations at Cal Poly

What is Biostatistics? Invited seminar at the Cal Poly Public Health Club meeting, Apr 2014.

Grants

2014-2015 Cal Poly Research, Scholarly, and Creative Activities Grant Program
“New Statistical Methods for Phylogenetic Inference with an Eye on Analysis of Big Data in Evolutionary Biology”
Role: PI; Total amount: \$6,600

Awards

Runner-up, Student Paper Competition. WNAR/IMS meeting, 2012.

Outstanding TA award (one award for the department). Department of Biostatistics, 2011-2012.

Cancer Epidemiology/Biostatistics Training Grant (NIH), University of Washington, 2009-2012.

Master’s Tuition Scholarship, Johns Hopkins Bloomberg School of Public Health, 2004-2005.

Academic Merit Scholarship, University of Michigan, 1999-2003.

Teaching History

Instructor California Polytechnic State University, San Luis Obispo. Spring 2013-Present

- Applied Statistics for the Life Sciences (STAT 218)
- Statistical Inference for Management I (STAT 251)
- Statistical Methods for Engineers (STAT 312)
- Probability Theory (STAT 425)

Substitute Lecturer University of Washington. Fall 2010, Winter 2011, Spring 2012.

- Medical Biometry II (BIOST 512)
- Biostatistics I (BIOST 517)
- Theory of Linear Models (BIOST 533)

Teaching Assistant University of Washington. Spring 2008-Spring 2012.

- Medical Biometry I (BIOST 511)
- Medical Biometry II (BIOST 512)
- Medical Biometry III (BIOST 513)
- Theory of Linear Models (BIOST 533)

Tutor University of Washington. Fall 2008-Spring 2011.

- Medical Biometry I (BIOST 511)
- Statistical Inference I-II (STAT 512-513)
- Advanced Theory of Statistical Inference II-III (STAT 582-583)

Teaching Assistant Johns Hopkins Bloomberg School of Public Health. Fall 2004.

- Introduction to Genetic Epidemiology (340.664)

Instructional Aide Summer Institute in Epidemiology, University of Michigan. Summer 2004.

- Analyzing Complex Sample Surveys (EPID 765)

Academic Service

Member, Curriculum Subcommittee for Linear Models sequence. Cal Poly San Luis Obispo, Department of Statistics, 2014-present.

Co-Coordinator, Department Colloquium Series. Cal Poly San Luis Obispo, Department of Statistics, 2014-present.

Member, Tenure-Track Faculty Hiring Committee. Cal Poly San Luis Obispo, Department of Statistics, 2013-2014.

Member, Admissions Committee. University of Washington, Department of Biostatistics, 2009-11.

Founder and Captain, Improper Priors: Ultimate Frisbee Team of the Departments of Statistics and Biostatistics, University of Washington. 2008-2012.

Member, Student-Faculty Communications Committee. University of Washington, Department of Biostatistics, 2008-10.

Volunteer, STARS Epidemiology for high school students. Johns Hopkins University. Winter 2004.

Professional Memberships

Member, Western North American Region (WNAR) of The International Biometric Society (IBS).

Member, American Statistical Association (ASA).