

# CURRICULUM VITAE

## KUI ZHANG

### Contact Information:

Department of Biostatistics  
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### Education

1990-1994 BSc in Probability and Statistics, Beijing University, Beijing, China  
1994-1999 PhD in Probability and Statistics, Beijing University, Beijing, China  
**Advisor:** Prof. Minping Qian  
**Dissertation:** Phase Transition of the SAT problem

### Continuing Education

N/A

### Professional Appointments

08/1999-01/2001 Postdoctoral Research Associate  
Division of Biostatistics, Department of Epidemiology and Public Health, Yale  
University School of Medicine  
02/2001-08/2003 Postdoctoral Research Associate  
Program of Molecular and Computational Biology, Department of Biological  
Sciences, University of Southern California  
08/2003-02/2008 Research Assistant Professor  
Section of Statistical Genetics, Department of Biostatistics, University of  
Alabama at Birmingham School of Public Health  
02/2008-present Associate Professor  
Section of Statistical Genetics, Department of Biostatistics, University of  
Alabama at Birmingham School of Public Health

## Professional Memberships

2000-present	Member, American Society of Human Genetic
2004-present	Member, International Association for Statistical Computing
2004-present	Member, American Statistical Association

## Awards and Honors

- The 1st class Guang Hua Scholarship, Peking University, 1991-1993.
- Dong Shi Dong Fang Scholarship, Peking University, 1995.
- Jiu Zhang Suan Shu Scholarship, Peking University, 1997.
- The Science Unbound Foundation Best paper Award in Statistical Genetics Research, 2008

## Research Interests

My research interests are to develop mathematical, statistical and computational tools to help solve the scientific problems in molecular biology and genetics. These include developing new methods and designing novel algorithms to map complex disease genes in genetic linkage analysis and linkage disequilibrium analysis using both population-based and family-based data. Another research that I am interested is functional genomics, which include predicting protein function using protein-protein interaction data and developing model-based and other novel approaches for analysis of gene microarray expression data.

## Computer Skills

Experience in UNIX, DOS, Windows, C++ and Fortran.  
Proficient in Statistical Data Analysis by Splus and R and Programming by C.

## Active Grants

Richard Kaslow, ..., **Kui Zhang (Co-Investigator)**. Chromosome 6p21-24 Markers in HIV-Related Kaposi Sarcoma. To search beyond the reported associations of *HLA* class II alleles with HIV-KS for alternative genetic determinants within and telomeric to the HLA complex. NIH/NCI-R01-CA-106168 Total costs: \$1,302,750. Period: 07/01/04-06/30/08.

Richard Kaslow, ..., **Kui Zhang (Co-Investigator)**. Population Genetics Analysis Program: Immunity to Vaccines/Infections. To identify host genetic characteristics

that determine and predict the variability in antibody responses and adverse reactions to anthrax vaccine (AVA). NIH/NIAID-R01-AI-40068. Total costs: \$5,822,438. Period: 09/01/04-08/31/09.

Richard Kaslow, ..., **Kui Zhang (Co-Investigator)**. CTL and HIV Polymorphisms in Heterosexual Transmission. To study CTL and HIV Polymorphisms in Heterosexual Transmission. NIH/Emory University-R01-AI-064060. Total costs: \$1,167,542. Period: 12/01/04-11/30/09.

**Kui Zhang (Principal Investigator)**. Haplotype Analysis in Linkage Disequilibrium Mapping. To develop association methods based on haplotypes for mapping genes that are responsible for complex human diseases. Total direct costs: \$750,000. NIH/NIGMS-R01-GM-74913. Period: 07/01/06-06/30/11.

Nianjun Liu, ..., **Kui Zhang (Co-Investigator)**. Genome Wide Haplotype Association Analysis. NIH/NIGMS-R01-GM-081488. First year direct cost: \$200,000. Period: 04/01/08-03/31/12

Jianming Tang, ..., **Kui Zhang (Co-Investigator)**. Heterogeneity in Cytokine Responses to HIV-1 Infection. NIH/NIAID-K02-AI-76123. First year direct cost: \$219,905. Period: 07/01/07-06/30/12.

Guimin Gao, ..., **Kui Zhang (Co-Investigator)**. Haplotyping and QTL Mapping in Pedigrees with Missing Data. NIH/NIGMS-R01-GM-073766. First year direct cost: \$237,781. Period: 07/01/2007-06/30/2012.

Richard Kaslow, ..., **Kui Zhang (Co-Investigator)**. Host Genetic Epidemiology in HIV-1-Discordant African Couples and Other Cohorts. NIH/NIAID-R01-AI-71906. First year direct cost: \$563,773. Period: 04/01/2007 – 03/31/2012.

### **Pending Grants**

Sadeep Shrestha, ..., **Kui Zhang (Co-Investigator)**. IL 10 gene family and HIV infection outcomes. NIH/NIAID. First Year direct Cost: \$125,000. Period: 01/01/2010 – 12/31/2011.

### **Participated Grants**

Christopher Amos, ..., **Kui Zhang (Co-Investigator)**. Positional Gene Identification of Complex Traits. To develop linkage/linkage disequilibrium methods for testing the effects of quantitative trait loci on complex quantitative traits. NIH/NIEHS-R01-ES09912. Period: 08/01/03-06/30/06.

Michael Lefevre, ..., **Kui Zhang (Co-Investigator)**. Diet, Genetics, and CVD Risk factor response in Blacks. To study the genetic factors that influence response of CVD risk factors to dietary interventions. NIH/NHLBI-U01HL072510. Period: 08/01/03-12/31/05.

Stephen Barnes, ..., **Kui Zhang (Co-Investigators)**. Center for Gene-Nutrient Interaction (CNGI). This Center will focus on the identification of genetic pathways that may distinguish cancer cells from normal cells, and the extent to which dietary polyphenols with documented chemopreventive activity modulate these pathways. NIH/NIC- U54CA100949. Period: 09/01/03-06/30/06.

David Allison, ..., **Kui Zhang (Co-Investigator)**. Linkage & Linkage Disequilibrium Data Analysis Clearinghouse. To develop a facility for efficient collaborative applied analysis of linkage and linkage disequilibrium. Period: 03/01/04-02/28/06.

Suzanne Oparil, ..., **Kui Zhang (Co-Investigator)**. Estrogen Modulates Injury-Induced Vascular Inflammation. To elucidate the fundamental cellular/molecular mechanisms by which ovarian hormones, particularly estrogen (E2), modulate the inflammatory response to acute endoluminal vascular injury. NIH/NHLBI-R01-HL75211. Period: 07/01/04-06/30/06.

**Kui Zhang (Principal Investigator)**. Haplotype analysis of population and pedigree data in association studies. NIH/NHGRI-R13-HG-004593. Total cost: \$15,000. Period: 10/01/2007-09/30/2008.

**Peer Reviewed Publications (first and/or corresponding author indicated by \*\*)**

1. **Kui Zhang\*\***, Hongyu Zhao. 2000. Assessing Reliability of Gene Clusters from Gene Expression Data. *Functional & Integrative Genomics* 1: 156-173. ((**PMID:** 11793234))
2. **Kui Zhang\*\***, Dayue Chen. 2001. The Probabilistic Study of *d*-SAT Problem. *Advances in Mathematics (Chinese)* 30: 231-237.
3. Jinming Li, Dai Wang, Jianping Dong, Renfang Jiang, **Kui Zhang**, Shuanglin Zhang, Hongyu Zhao, Fengzhu Sun. 2001. The power of Transmission Disequilibrium Tests for Quantitative Traits. In: Wijsman EM, Almasy L, Amos CI, Borecki I, Falk CT, King TM, Martinez MM, Meyers D, Neuman R, Olson JM, Rich S, Spence MA, Thomas DC, Vieland VJ, Witte JS, MacCluer JW (Editors), *Analysis of complex genetic traits: Applications to asthma and simulated data*. In *Genetic Epidemiology* 21(Suppl 1): S632-S637. (**PMID:** 11793752)

4. Shuanglin Zhang, **Kui Zhang**, Jinming Li, Fengzhu Sun, Hongyu Zhao. 2001. Test of Linkage and Association for Quantitative Traits in General Pedigrees: The Quantitative Pedigree Disequilibrium Test. In: Wijsman EM, Almasy L, Amos CI, Borecki I, Falk CT, King TM, Martinez MM, Meyers D, Neuman R, Olson JM, Rich S, Spence MA, Thomas DC, Vieland VJ, Witte JS, MacCluer JW (Editors), *Analysis of complex genetic traits: Applications to asthma and simulated data*. In *Genetic Epidemiology* 21(Suppl 1): S370-S375. ((PMID: 11793701))
5. Shuanglin Zhang, **Kui Zhang**, Jinming Li, Hongyu Zhao. 2002. On a Family-based Haplotype Pattern Mining Method for Linkage Disequilibrium Mapping. *The Proceeding of Pacific Symposium on Biocomputing* 7: 100-111. (PMID: 11928467)
6. **Kui Zhang\*\***, Minghua Deng, Ting Chen, Michael S. Waterman, Fengzhu Sun. 2002. A Dynamic Programming Algorithm for Haplotype Block Partitioning. *Proceedings of the National Academy of Sciences of the United States of America* 99: 7335-7339. (PMID: 12032283)
7. **Kui Zhang\*\***, Peter Calabrese, Magnus Nordborg, Fengzhu Sun. 2002. Haplotype Structure and Its Applications to Association Studies: Power and Study Designs. *The American Journal of Human Genetics* 71: 1386-1394. (PMID: 12439824)
8. **Kui Zhang\*\***, Fengzhu Sun, Michael S. Waterman, Ting Chen. 2003. Haplotype Block Partition with limited Resources and Applications to Human Chromosome 21 Haplotype Data. *The American Journal of Human Genetics* 73: 63-73. (PMID: 12802783)
9. Sung Kim, **Kui Zhang**, Fengzhu Sun. 2003. Detecting Susceptibility Genes in Case-Control Studies Using Set Association Analysis. In: Almasy L, Amos CI, Bailey-Wilson JE, Cantor RM, Jaquish CE, Martinez M, Neuman RJ, Olson JM, Palmer LJ, Rich SS, Spence MA, MacCluer JW (Editors) Genetic Analysis Workshop 13: Analysis of Longitudinal Family Data for Complex Diseases and Related Risk Factors. *BMC Genetics* 2003, 4(Suppl 1): S9. (PMID: 14975077)
10. Minghua Deng, **Kui Zhang**, Shipra Mehta, Ting Chen, Fengzhu Sun. 2003. Prediction of Protein Function Using Protein-protein Interaction Data. *Journal of Computational Biology* 10: 947-960. (PMID: 14980019)
11. Sung Kim, **Kui Zhang**, Fengzhu Sun. 2004. A Comparison of Different Strategies for Computing Confidence Intervals of the Linkage Disequilibrium Measure. *The Proceeding of Pacific Symposium on Biocomputing* 9: 128-139. (PMID: 14992498)

12. Thomas G. Schulze, **Kui Zhang**, Yu-Sheng Chen, Nirmala Akula, Fengzhu Sun, Francis J. McMahon. 2004. Defining Haplotype Blocks and Tag Single-nucleotide Polymorphisms in the Human Genome. *Human Molecular Genetics* 35: 335-342. (PMID: 14681300)
13. **Kui Zhang\*\***, Zhaohui Qin, Jun Liu, Ting Chen, Michael S. Waterman, Fengzhu Sun. 2004. Haplotype Block Partitioning and Tag SNP Selection Using Genotype Data and Their Applications to Association Studies. *Genome Research* 14: 908-916. (PMID: 15078859)
14. **Kui Zhang\*\***, Fengzhu Sun, Hongyu Zhao. 2005. HAPLORE: A Program for Haplotype Reconstruction in General Pedigrees without Recombination. *Bioinformatics* 21: 90-103. (PMID: 15333454)
15. **Kui Zhang\*\***, Zhaohui Qin, Ting Chen, Jun Liu, Michael Waterman, Fengzhu Sun. 2005. HapBlock: Haplotype Block Partitioning and Tag SNP Selection Software Using A Set of Dynamic Programming Algorithms. *Bioinformatics* 21: 131-134. (PMID: 15231536)
16. T. Mark Beasley, Howard Wiener, **Kui Zhang**, Alfred A. Bartolucci, Christopher I. Amos, David Allison. 2005. Empirical Bayes Method for Incorporating Data from Multiple Genome Scans. *Human Heredity* 60: 36-42. (PMID: 16137992)
17. **Kui Zhang\*\***, Fengzhu Sun. 2005. Assessing the Power of Tag SNPs in Mapping of Quantitative Trait Loci (QTL) with Extremal and Random Samples. *BMC Genetics* 6: 51. (PMID: 16236175)
18. Yao-Ting Huang, **Kui Zhang**, Ting Chen, Kun-Mao Chao. 2005. Selecting Additional Tag SNPs for Tolerating Missing Data in Genotyping. *BMC Bioinformatics* 6: 263. (PMID: 16259642)
19. **Kui Zhang\*\***, Hongyu Zhao. 2006. A Comparison of Several Methods for Haplotype Frequency Estimation and Haplotype Reconstruction for Tightly Linked Markers from General Pedigrees. *Genetic Epidemiology* 30: 423-437. (PMID: 16685719)
20. **Kui Zhang\*\***, Howard Wiener, Marker Beasley, Varghese George, Christopher I. Amos, David Allison. 2006. An Empirical Bayes Method for Analysis of Quantitative-Trait Loci from Multiple Genome Scans. *Genetics* 173: 2283-2296. (PMID: 16751667)
21. Jessica M. Grunda, L. Burton Nabors, Cheryl A. Palmer, David C. Chhieng, Adam D. Steg, Tom Mikkelsen, Robert B. Diasio, **Kui Zhang**, David Allison, William E. Grizzle, Wenquan Wang, Yancey Gillespie and Martin R. Johnson. 2006. Increased Expression of Thymidylate Synthetase (TS), Ubiquitin Specific

- Protease 10 (USP10) and Survivin Associated with Poor Survival in Glioblastoma Multiforme (GBM). *Journal of Neuro-Oncology* 80: 261-274. (PMID: 16773218)
22. Shannon A. Ross, Zdenek Novak, Rekha A. Kumbla, **Kui Zhang**, Karen B. Fowler, Suresh Boppana. 2007. GJB2 and GJB6 Mutations in Children with Congenital Cytomegalovirus. *Pediatric Research* 61: 687-691. (PMID: 17426645)
  23. Hua Li, Guimin Gao, Jian Li, Grier P. Page, **Kui Zhang**. 2007. Detecting epistatic interactions contributing to human gene expression using the CEPH family data. *BMC Proceeding 2007*, 1(Suppl 1): S33. (PMID: 18466568)
  24. Yun Joo Yoo, Guimin Gao, **Kui Zhang\*\***. 2007. Case-control association analysis of rheumatoid arthritis with candidate genes using related cases. *BMC Proceeding 2007*, 1(Suppl 1): S67. (PMID: 18466531)
  25. Yun Joo Yoo, Jianming Tang, Richard A. Kaslow, **Kui Zhang\*\***. 2007. Haplotype Inference for Present-absent Genotype Using Previously Identified Haplotypes and Haplotype Patterns. *Bioinformatics* 23: 2399-2406. (PMID: 17644820)
  26. Nianjun Liu, **Kui Zhang\*\***, Hongyu Zhao. 2008. Haplotype-Association Analysis. D.C. Rao and C. Charles Gu (Editors): Genetic Dissection of Complex Traits. *Advances in Genetics* 60: 335-405. (PMID: 18358327)
  27. Yong-Jun Liu, Jose M. Ordovas, Guimin Gao, Michael Province, Robert J. Straka, Michael Y. Tsai, Chao-Qiang Lai, **Kui Zhang**, Ingrid Borecki, James E. Hixson, David B. Allison, Donna K. Arnett. 2008. The SCARB1 gene is Associated with Lipid Response to Dietary and Pharmacological Interventions. *The Journal of Human Genetics* 53: 709-717. (PMID: 18542840)
  28. Yongjun Liu, Jose M. Ordovas, Guimin Gao, Michael Province, Robert J. Straka, Michael Y. Tsai, Chao-Qiang Lai, **Kui Zhang**, Ingrid Borecki, James E. Hixson, David B. Allison, Donna K. Arnett. Pharmacogenetic Association of the APOA1/C3/A4/A5 Gene Cluster and Lipid Responses to Fenofibrate - The Genetics of Lipid Lowering Drugs and Diet Network (GOLDN) Study. *Pharmacogenetics and Genomics* 19: 161-169. (PMID: 19057464)
  29. Zhe Lei, Reng-Yun Liu, Jun Zhao, Zeyi Liu, Xiefang Jiang, Xiao-Feng Chen, Xia Liu, **Kui Zhang**, Boris Pasche, Hong-Tao Zhang. 2009. *TGFBR1* haplotypes and risk of non-small cell lung cancer. *Cancer Research*. Accepted.
  30. Douglas K. Childers, Guolian Kang, Nianjun Liu, Guimin Gao, **Kui Zhang\*\***. 2009. Application of Imputation Methods to the Analysis of Rheumatoid Arthritis Data in Genome-Wide Association Studies. Submitted to GAW16. Accepted.

31. Guolian Kang, Douglas K. Childers, Nianjun Liu, **Kui Zhang**, Guimin Gao. Genome-wide association studies of Rheumatoid Arthritis data via multiple hypothesis testing methods for correlated tests. Submitted to GAW16. Accepted.

**Publications in Books and Proceedings (\*\*: first and/or corresponding author)**

1. **Kui Zhang\*\***, Ting Chen, Michael Waterman, Zhaohui Qin, Jun Liu, Fengzhu Sun. 2004. Dynamic Programming Algorithms for Haplotype Block Partition and Tag SNP Selection Using Haplotype Data or Genotype Data. In Sorin Istrail, Pavle Pevzner, and Michael Waterman (Editors): *Lecture Notes in Computer Science Volume 2983 - Computational Methods for SNPs and Haplotype Inference - DIMACS/RECOMB Satellite Workshop, Piscataway, NJ, USA, November, 21-22, 2002*. pp. 96-112.
2. **Kui Zhang\*\***, Fengzhu Sun, Michael S. Waterman, Ting Chen. 2004. Dynamic Programming Algorithms for Partitioning Sequence Variation in Human Chromosomes. *Proceedings of the 6th Hellenic European Conference on Computer Mathematics and its Applications (HERCMA-2003), Athens, Greece, September 25-27, 2003*. pp. 15-26.
3. Yao-Ting Huang, **Kui Zhang**, Ting Chen, Kun-Mao Chao. 2004. Approximation Algorithms for the Selection of Robust Tag SNPs. In Inge Jonassen and Junhyong Kim (Editors): *Lecture Notes in Computer Science/Lecture Notes in Bioinformatics Volume 3240 - Algorithms in Bioinformatics - 4th International Workshop, WABI 2004, Bergen, Norway, September 17-21*. pp. 278-289.
4. Marie-Pierre St-Onge, Grier P. Page, Maria DeLuca, **Kui Zhang**, Kyoungmi Kim, Steven B. Heymsfield, David B. Allison. 2004. Design & Analysis of Microarray Studies for Obesity Research. In Carolyn D. Berdanier and Naima Moustaid-Moussa (Editors): *Genomics and Proteomics in Nutrition Research*. New York: Marcel-Dekker Inc. pp. 145-204.
5. Bernard Gorman, **Kui Zhang**. 2005. Cluster Stability. In David Allison, Grier Page, Mark Beasley, and Jode Edwards (Editors): *DNA Microarrays and Statistical Genomic Techniques: Design, Analysis, and Interpretation of Experiments*. CRC Press. pp. 159-176.
6. **Kui Zhang\*\***, Fengzhu Sun, Michael S. Waterman, Ting Chen. 2006. Dynamic Programming Algorithms for Partitioning Sequence Variation in Human Chromosomes. Elias A. Lipitakis (Editor): *Computer Mathematics and Its Applications: Advances and Developments (1994-2005)*. LEA Publishers, Athens, Greece. pp. 431-442.
7. Yao-Ting Huang, **Kui Zhang**, Ting Chen, Kun-Mao Chao. 2007. Approximation Algorithms for the Selection of Robust Tag SNPs. Teofilo F. Gonzalez (Editor):

*Handbook of Approximation Algorithms and Metaheuristics (Chapman & Hall/Crc Computer and Information Science Series)*. Chapman & Hall/CRC Press. pp. 77.

8. Grier P. Page, Stanislav Zakharkin, Kyoungmi Kim, Tapan Mehta, Prashanth Yelisetti, Lang Chen, **Kui Zhang**. 2007. Microarray analysis. Walter Ambrosius (Editor): *Topics in Biostatistics (Methods in Molecular Biology)*. Humana Press. pp. 20.
9. **Kui Zhang\*\***, Fengzhu Sun. 2008. Tag SNP Selection and Its Applications in Association Studies. Hongwen Deng, Hui Shen, Yongjun Liu, and Hai Hu (Editors): *Current Topics in Human Genetics: Studies in Complex Diseases*. World Scientific Publishing. pp. 95-122.

#### **Manuscripts in Preparation (\*\*: first and/or corresponding author)**

1. Li Wang, **Kui Zhang**, Xiaotu Ma, Thomas G Schulze, Francis J. McMahon, Fengzhu Sun. 2008. The Effects of Sample Size on Haplotype Block Partition, Tag SNP Selection and Power of Association Studies. Submitted to *Lecture Notes in Bioinformatics*.
2. **Kui Zhang\*\***, Elliot J. Lefkowitz, Grier Page, David Allison. 2008. Does Sequence Similarity Predict Expression Similarity? Submitted to *BMC Genetics*.
3. **Kui Zhang\*\***, Howard Weiner, T. Mark Beasley, Christopher I. Amos, David B. Allison. 2008. Utilizing Information from Multiple Genome Scan Studies in an Empirical Bayes Framework for Strengthening Inferences and Narrowing QTL location estimates. Rudy Guerra and David Allison (Editors): *Meta-Analysis and Combining Information in Genetics*. CRC Press. Submitted.
4. Kaiyu Yuan, Mark W. MacEwen, **Kui Zhang**, Amy D. Gandhi, Hernan Grenett, James S. Hagood. 2008. Thy-1 Regulates IL-1 $\beta$ -induced NF- $\kappa$ B Activation in Fibroblasts. Submitted to *The Journal of Physiology*.
5. Jianming Tang, Wenshuo Shao, Yun Joo Yoo, **Kui Zhang**, Etienne Karita, Joseph Mulenga, Susan Allen, Eric Hunter, and Richard A. Kaslow. 2008. Common Human Leukocyte Antigen class I Alleles and Haplotypes Unique to Native Africans. Submitted to *Human Immunology*.
6. Yun Joo Yoo, Jianming Tang, Jeffery C. Edberg, Richard A. Kaslow, **Kui Zhang\*\***. 2008. Evaluation of Haplotype-tagging SNPs from Two Dense Sequencing Projects: Analyses of 70 Human Genes Related to Immune Responses. Submitted to *Genes and Immunity*.

7. Laura Kelly Vaughan, Amit Patki, **Kui Zhang**, Hemant K. Tiwari, Ulrich Broeckel, Donna K. Arnett. 2008. Characteristic of the Affymetrix 500k GeneChip in African Americans. Submitted to *BMC Genetics*.

### **Invited Oral Presentations**

- |               |   |
|---------------|---|
| Nov 1, 2001   | Department of Mathematics, University of Southern California, Los Angeles, California                                       |
| Jun 6, 2002   | Los Angeles Area Statistical Genetics Meeting   |
| Oct 10, 2002  | Department of mathematics, University of Southern California, Los Angeles, California                                       |
| Oct 19, 2002  | The American Society of Human Genetics 52 <sup>nd</sup> Annual Meeting, Baltimore, Maryland                                 |
| Dec 17, 2002  | Department of Preventive Medicine and Epidemiology, Loyola University Medical Center  |
| Jan 20, 2003  | Virginia Institute for Behavioral and Psychiatric Genetics (VIPBG), Virginia Commonwealth University                        |
| Feb 7, 2003   | Division Department of Biostatistics, University of Minnesota School of Public Health                                       |
| Feb 20, 2003  | Department of Biostatistics, School of Public Health, University of Alabama at Birmingham                                   |
| Mar 10, 2003  | Center for American-Indian Health Research, University of Oklahoma Health Sciences Center                                   |
| Aug 8, 2003   | Department of Biochemistry and Molecular Biology, University of Indiana School of Medicine                                  |
| May 28, 2004  | Interface 2004: Computational Biology and Bioinformatics, 36 <sup>th</sup> Symposium on the Interface, Baltimore, Maryland. |
| June 13, 2005 | Workshop at Mathematical Biosciences Institute: Recombination: Hot Spots and Haplotype Structure, Columbus, Ohio.           |
| Feb 5, 2007   | Department of Mathematics, Michigan Technological University, Houghton, Michigan  |

- Feb 22, 2007 Department of Epidemiology, Michigan State University, East Lansing, Michigan
- March 7, 2007 Department of Informatics and Personalized Medicine, University of Missouri at Kansas City School of Medicine
- May 11, 2007 Computational Genomics Workshop, Department of Epidemiology, Michigan State University, East Lansing, Michigan
- May 8, 2008 NHGRI/NIH funded conference titled “Haplotype analysis of population and pedigree data in association studies”, Birmingham, Alabama
- Aug 6, 2008 2008 Joint Statistical Meeting, Denver, Colorado

### **Poster Presentations**

- Oct 2, 2000 The American Society of Human Genetics 50<sup>th</sup> Annual Meeting, Philadelphia, Pennsylvania.
- Oct 23, 2000 The 12<sup>th</sup> Genetic Analysis Workshop, San Antonio, Texas.
- Oct 27, 2000 The 9<sup>th</sup> Annual Meeting of International Genetic Epidemiology Society, San Antonio, Texas.
- Nov 4, 2003 The American Society of Human Genetics 53<sup>rd</sup> Annual Meeting, Los Angeles, California
- Jan 15, 2005 Plant and Animal Genome Conference XIII, San Diego, California
- Oct 25, 2005 The American Society of Human Genetics 55<sup>th</sup> Annual Meeting, Salt Lake City, Utah.
- Oct 9, 2006 The American Society of Human Genetics 56<sup>th</sup> Annual Meeting, New Orleans, Louisiana.
- Nov 11, 2006 The 15<sup>th</sup> Genetic Analysis Workshop, St Pete’s Beach, Florida.
- Oct 25, 2007 The American Society of Human Genetics 57<sup>th</sup> Annual Meeting, San Diego, California.

### **Paper Review Activities**

American Journal of Human Genetics (2003, 2004, 2005, 2006, 2008)  
Annals of Epidemiology (2004)

Annals of Human Genetics (2007, 2008, 2009)  
Applied Bioinformatics (2004)  
Behavior Genetics (2004)  
Bioinformatics (2004, 2005, 2006, 2007, 2008, 2009)  
Biostatistics (2006, 2008)  
BMC Bioinformatics (2004, 2005, 2006, 2007, 2008, 2009)  
BMC Cancer (2007)  
BMC Evolutionary Biology (2008)  
BMC Genetics (2005, 2006, 2007)  
BMC Genomics (2008)  
BMC Medical Genetics (2005, 2006, 2007, 2008)  
BMC Microbiology (2007)  
BMC Pediatrics (2008)  
BMC Plant Biology (2007, 2008)  
BMC Pulmonary Medicine (2008)  
BMC Veterinary Research (2007)  
Cancer Informatics (2004)  
Computational Statistics and Data Analysis (2003)  
Computers and Electronics in Agriculture (2006)  
Computers and Operations Research (2008)  
Communications in Information and Systems (2009)  
European Journal of Human Genetics (2007, 2008, 2009)  
Gene (2007)  
Genetic Epidemiology (2005, 2006, 2007, 2008, 2009)  
Genetics (2004, 2005, 2007)  
Genome Research (2007)  
Human Heredity (2003, 2004, 2005, 2006, 2009)  
Human Molecular Genetics (2004)  
INFORMS Journal of Computing (2008)  
IEEE/ACM Transactions on Computational Biology and Bioinformatics (2007)  
IEEE Transactions on Information Technology in Biomedicine (2007)  
Journal of Bioinformatics and Computational Biology (2002, 2004, 2007, 2008)  
Journal of Clinical Endocrinology & Metabolism (2007, 2008, 2009)  
Frontiers in Biosciences (2007)  
Journal of the Theoretical Biology (2004)  
Molecular Diagnosis and Therapy (2005)  
Mutation Research (2005)  
Pharmacogenomics (2005)  
PLoS Genetics (2005, 2006, 2007, 2008)  
Statistical Applications in Genetics and Molecular Biology (2005)  
Statistics and its Inference (2008)  
Statistics in Medicine (2007, 2008)  
Workshop on Algorithms in Bioinformatics, Budapest, Hungary, Sep 15-20, 2003  
2005 IEEE Computational Systems Bioinformatics Conference, August 8-12, 2005

## Grant Review Activities

CI-Team Implementation Panel	NSF (10/25/2007-10/26/2007)
NIH/NIMMH- ZMH1-ERB-S Special Panel	NIH (08/14/2008)
NIH/NIA-ZAG1-ZIJ-7 Special Panel	NIH (08/15/2008)

## Teaching Experiences

09/1994-01/1995, Peking University, Beijing, China  
**Teaching Assistant** of Complex Function Analysis

09/1996-01/1997, Peking University, Beijing, China  
**Teaching Assistant** of Mathematical Analysis

03/1997-06/1997, Peking University, Beijing, China  
**Teaching Assistant** of the Multivariate Statistical Analysis

03/1997-07/1997 and 03/1998-07/1998, Peking University, Beijing, China  
**Course Master** of Programming of Assembly Language, responsible for giving lectures, preparing and grading homework and exams, and supervising a TA.

10/21/2004, University of Alabama at Birmingham, AL  
**Guest Lecturer**, 2-hour lecture of Statistical Analysis of Microarray Data

05/11/2005, University of Alabama at Birmingham, AL  
**Guest Lecturer**, 1-hour lecture of Statistical Methods for Gene Mapping for Clinical Research Training Program (CRTP) at UAB

05/10/2006, University of Alabama at Birmingham, AL  
**Guest Lecturer**, 1-hour lecture of Statistical Methods for Gene Mapping for Clinical Research Training Program (CRTP) at UAB

08/2006-12/2006, University of Alabama at Birmingham, AL  
**Course Master** for BST631: Statistical Theory I, responsible for giving lectures, preparing and grading homework and exams.

04/11/2007, University of Alabama at Birmingham, AL  
**Guest Lecturer**, 1-hour lecture of Statistical Methods for Gene Mapping for Clinical Research Training Program (CRTP) at UAB

08/2007-12/2007, University of Alabama at Birmingham, AL  
**Course Master** for BST631: Statistical Theory I, responsible for giving lectures, preparing and grading homework and exams.

07/22/2008, University of Alabama at Birmingham, AL

**Guest Lecturer**, 1.5-hour lecture of haplotype analysis in association studies for NSF funded short course on Statistical Genetics and Statistical Genomics

08/2007-12/2008, University of Alabama at Birmingham, AL

**Course Master** for BST631: Statistical Theory I, responsible for giving lectures, preparing and grading homework and exams.

01/2009-05/2009, University of Alabama at Birmingham, AL

**Course Master** for BST632: Statistical Theory I, responsible for giving lectures, preparing and grading homework and exams.

### **Academic Advisor**

Aug 2003- Jul 2005

William Prucka (Ph.D. Student) at UAB

Aug 2008- Present

Ashutosh Ranjan (Ph.D. Student) at UAB

### **Dissertation Committees**

2005      Kisani Mary Ogwaro (Advisor: Prof. Richard Kaslow)  
Department of Epidemiology, UAB School of Public Health  
Dropped from department in 2006.

2005      Aleksandr Lazaryan (Advisor: Prof. Richard Kaslow)  
Department of Epidemiology, UAB School of Public Health  
Proposal Defended: 06/01/2006  
Dissertation Defended: 06/19/2008

2008      Gary Daigle (Advisor: Prof. Pauline E Jolly)  
Department of Epidemiology, UAB School of Public Health  
Proposal Defended: 05/29/2008  
Dissertation Defended: TBA

2008      Hongjiang Gao (Advisor: Profs. Inmaculada (Chichi) Aban and Charles R. Katholi)  
Department of Biostatistics, UAB School of Public Health  
Proposal Defended: 12/22/2008  
Dissertation Defended: TBA

### **Postdoctoral Fellows**

Jan 2006 - Oct 2007

Yun Joo Yoo, Ph.D.

Jan 2007 - Present

Douglas Childers, Ph.D.

## Service Activities

Jun 2004 – Aug 2005	Organizer of SSG Monthly Grant Writing Meeting
Jun 2005 – Present	Alternative Senate of SOPH at UAB Faculty Senate
Feb 29, 2008	Judge for UAB Graduate Research Day in 2008
May 7-8, 2008	Organizer of two day NIH/NHGRI funded conference “Haplotype analysis of population and pedigree data in association studies”
Aug 2008 – Present	UAB Quantitative Literacy Committee
Feb 16, 2009	Judge for UAB Postdoctoral Research Day in 2009
Feb 19, 2009	Organizer of SSG Professional Development Workshop Series “On the Road to Meeting One’s Scholarship Goals: How to Be a Mentor”
Feb 25, 2009	Host on Junior Achievement Job Shadow Day , UAB & JA Job Shadow, Feb 25, 2009
April, 2009	Member of Program Committee for the 2 <sup>nd</sup> International Conference on Biomedical Engineering and Informatics (BMEI’09), Oct 17-19, 2009, Tianjin, China

## References:

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