

COLLEGE OF PUBLIC HEALTH CURRICULUM VITAE

Kai Wang
July 27, 2021

I. EDUCATION AND PROFESSIONAL HISTORY

A. Education

<u>Institution</u>	<u>Field of Study</u>	<u>Degree Obtained</u>	<u>Degree Date</u>
Lanzhou University	Mathematics	BA	1986
Nankai University	Econometrics	MA	1989
University of Iowa, Iowa City, Iowa	Economics	MA	1996
University of Iowa, Iowa City, Iowa	Statistics	PhD	1999

B. Professional and Academic Positions

<u>Position Title</u>	<u>Dates of Service</u>	<u>Location/Institution</u>
Instructor	1989-1992	Department of Mathematics, Nankai University, Tianjin, China
Teaching Assistant	1992-1997	Department of Economics, University of Iowa, Iowa City
Instructor	1996	Department of Economics, University of Iowa, Iowa City
Research Assistant	1997-1998	Department of Statistics and Actuarial Science, University of Iowa, Iowa City
Research Assistant Professor	1999	Comprehensive Cancer Center, University of Alabama at Birmingham, Birmingham
Assistant Professor	1999-2003	Department of Biostatistics Division of Statistical Genetics, University of Iowa, Iowa City
Director of Graduate Studies	2003-2006	Program in Public Health Genetics, College of Public Health, University of Iowa, Iowa City

<u>Position Title</u>	<u>Dates of Service</u>	<u>Location/Institution</u>
Assistant Professor	2003-2005	Program in Public Health Genetics, College of Public Health, University of Iowa, Iowa City
Associate Professor	2005-2007	Program in Public Health Genetics, College of Public Health, University of Iowa, Iowa City
Acting Director of Graduate Studies	2006-2007	Program in Public Health Genetics, College of Public Health, University of Iowa, Iowa City
Associate Professor	2007-2013	Department of Biostatistics, College of Public Health, University of Iowa, Iowa City
Associate Professor	2010-2013	Interdisciplinary Graduate Degree Program in Informatics, Bioinformatics Subtrack, University of Iowa, Iowa City
Professor	2013-Present	Department of Biostatistics, College of Public Health, University of Iowa, Iowa City

C. Honors, Awards, Recognitions, and Outstanding Achievements

<u>Year</u>	<u>Title</u>
1984	Outstanding Student Award, Lanzhou University
1999	NSF travel grant for the CBMS Summer Course on Inferences from Genetic Data on Pedigrees, Michigan Technical University
2001	New Investigator Research Award, College of Public Health and College of Medicine, University of Iowa
2002	NSF travel grant for the Workshop on Developments and Challenges in Mixture Models, Bump Hunting and Measurement Error Models, Case Western Reserve University
2002	NSF travel grant for the Frontiers of Statistical Research: A Celebration of the 40th Anniversary of the Department of Statistics at Texas A&M University, Texas A&M University
2003	Finalist in Post-doctoral Neal Young Investigator Award, International Genetic Epidemiology Society Conference, Los Angeles, CA
2005	Mathematical & Physical Sciences Funding Program Award, University of Iowa

<u>Year</u>	<u>Title</u>
2005	University of Iowa international travel grant for the joint meeting of the Chinese Society of Probability and Statistics (CSPS) and the Institute of Mathematical Statistics (IMS), CSPS and IMS
2016	Best Paper Awards, 5th Annual Global Healthcare Conference: GHC 2016
2019	Inducted into Delta Omega Honorary Society in Public Health, College of Public Health, The University of Iowa
2019	Recognition from Thank-a-Teacher Program, Center for Teaching
2020	Best Paper Award for "Treatment Effects on an Outcome under Nonlinear Modeling", 2020 Meeting of International Society for Data Science and Analytics

II. TEACHING

A. Teaching Assignments on a semester-by-semester basis (*classroom, seminar, teaching lab*)

1. University of Iowa

<u>Semester/Year</u>	<u>Course Title/Number</u>	<u>Semester Hours</u>	<u># Students</u>	<u>Role</u>	<u>Percent Responsible</u>
Spring 1996	6K:71 Quantitative Analysis 6K:71	3	25	Primary Instructor	100%
Fall 1999	55:195 Computational Biology: one lecture (Nov. 5th)		15	Guest Lecturer	100%
Fall 1999	63:176 Biostatistical Methods I: one lecture (Nov. 30th)		8	Guest Lecturer	100%
Fall 2000	171:201 Biostatistical Methods I	4	13	Primary Instructor	100%
Spring 2001	171:202 Biostatistical Methods II	4	8	Primary Instructor	100%
Spring 2002	171:274 Computational Methods in Statistical Genetics	3	4	Primary Instructor	100%
Fall 2002	171:274 Computational Methods in Statistical Genetics	3	2	Primary Instructor	100%

<u>Semester/Year</u>	<u>Course Title/Number</u>	<u>Semester Hours</u>	<u># Students</u>	<u>Role</u>	<u>Percent Responsible</u>
Spring 2003	171:161 Introduction to Biostatistics	3	32	Primary Instructor	100%
Fall 2003	171:272 Statistical Genetics II: Continuous Traits	3	5	Primary Instructor	100%
Fall 2004	185:278 Computing Algorithms in Statistical Genetics	3	2	Primary Instructor	100%
Fall 2005	185:272 Population and Quantitative Genetics	3	4	Primary Instructor	100%
Fall 2006	185:278 Computing Algorithms in Statistical Genetics	3	3	Primary Instructor	100%
Fall 2006	185:280 Preceptorship in Statistical Genetics: Diana Abbott	2	1	Primary Instructor	100%
Spring 2007	171:162 Design & Analysis of Biomedical Studies	3	40	Primary Instructor	100%
Spring 2007	185:295 Research in Statistical Genetics: Diana Abbott	2	1	Primary Instructor	100%
Spring 2007	185:300 Dissertation in Statistical Genetics: Diana Abbott	8	1	Primary Instructor	100%
Fall 2007	171:280 Preceptorship in Biostatistics: Xiangjun Xiao	3	1	Primary Instructor	100%
Fall 2007	185:272 Population and Quantitative Genetics	3	2	Primary Instructor	100%
Fall 2007	185:290 Dissertation in Statistical Genetics: Diana Abbott	3	1	Primary Instructor	100%
Spring 2008	185:278 Computing Algorithms in Statistical Genetics	3	2	Primary Instructor	100%

<u>Semester/Year</u>	<u>Course Title/Number</u>	<u>Semester Hours</u>	<u># Students</u>	<u>Role</u>	<u>Percent Responsible</u>
Spring 2008	185:280 Preceptorship in Statistical Genetics: Yufang Zhang	3	1	Primary Instructor	100%
Spring 2008	185:290 Dissertation in Statistical Genetics: Diana Abbott	3	1	Primary Instructor	100%
Fall 2008	171:241 Applied Categorical Data Analysis	3	23	Primary Instructor	100%
Fall 2008	171:280 Preceptorship in Biostatistics: Yang Xu, Yufang Zhang	3	2	Primary Instructor	100%
Fall 2008	185:290 Dissertation in Statistical Genetics: Xiangjun Xiao, Yufang Zhang	3	2	Primary Instructor	100%
Spring 2009	171:203 Biostatistical Methods in Categorical Data	3	10	Primary Instructor	100%
Spring 2009	171:280 Preceptorship in Biostatistics: Shihao Shen	3	1	Primary Instructor	100%
Spring 2009	185:290 Dissertation in Statistical Genetics: Xiangjun Xiao, Yufang Zhang	3	2	Primary Instructor	100%
Fall 2009	171:241 Applied Categorical Data Analysis	3	36	Primary Instructor	100%
Fall 2009	185:290 Dissertation in Statistical Genetics: Xiangjun Xiao, Yufang Zhang	3	2	Primary Instructor	100%
Spring 2010	127:191 Human Molecular Genetics: Two lectures (March 23rd and 25th)		25	Guest Lecturer	100%

<u>Semester/Year</u>	<u>Course Title/Number</u>	<u>Semester Hours</u>	<u># Students</u>	<u>Role</u>	<u>Percent Responsible</u>
Spring 2010	171:280 Preceptorship in Biostatistics: Angela Meisterling, Lizette Ortega	3	2	Primary Instructor	100%
Spring 2010	171:290 Advanced Biostatistics Seminar: Statistical Genetics	3	11	Primary Instructor	100%
Spring 2010	185:290 Dissertation in Statistical Genetics: Xiangjun Xiao, Yufang Zhang	3	2	Primary Instructor	100%
Fall 2010	171:241 Applied Categorical Data Analysis	3	14	Primary Instructor	100%
Fall 2010	171:281 Independent Study in Biostatistics: Carmen Smith	3	1	Primary Instructor	100%
Fall 2010	185:300 Dissertation in Statistical Genetics: Xiangjun Xiao	3	1	Primary Instructor	100%
Spring 2011	171:203 Biostatistical Methods in Categorical Data	3	13	Primary Instructor	100%
Spring 2011	171:281 Independent Study in Biostatistics: Carmen Smith	3	1	Primary Instructor	100%
Spring 2011	185:300 Dissertation in Statistical Genetics: Xiangjun Xiao	3	1	Primary Instructor	100%
Summer 2011	Iowa Summer Institute in Biostatistics: one lecture	3	11	Primary Instructor	100%
Summer 2011	171:281 Independent Study in Biostatistics: Marytere Melendez, Carmen Smith	3	2	Primary Instructor	100%

<u>Semester/Year</u>	<u>Course Title/Number</u>	<u>Semester Hours</u>	<u># Students</u>	<u>Role</u>	<u>Percent Responsible</u>
Fall 2011	171:164 Research Data Management	3	20	Primary Instructor	100%
Fall 2011	171:281 Independent Study in Biostatistics: Vera Rayevskaya	3	1	Primary Instructor	100%
Fall 2011	171:300 Thesis/Dissertation: Carmen Smith	3	1	Primary Instructor	100%
Fall 2011	185:300 Dissertation in Statistical Genetics: Xiangjun Xiao	3	1	Primary Instructor	100%
Spring 2012	171:161 Introduction to Biostatistics	3	78	Primary Instructor	100%
Spring 2012	171:281 Independent Study in Biostatistics: Lizette Ortega	3	1	Primary Instructor	100%
Spring 2012	171:300 Thesis/Dissertation: Carmen Smith	3	1	Primary Instructor	100%
Spring 2012	185:300 Dissertation in Statistical Genetics: Xiangjun Xiao	3	1	Primary Instructor	100%
Summer 2012	Iowa Summer Institute in Biostatistics		15	Primary Instructor	100%
Summer 2012	171:300 Thesis/Dissertation: Carmen Smith	2	1	Primary Instructor	100%
Fall 2012	171:290:001 Advanced Biostatistics Seminar		15	Primary Instructor	
Fall 2012	171:290 Advanced Biostatistics Seminar: Statistiacal Genetics	3	15	Primary Instructor	60%
Fall 2012	171:300 Thesis/Dissertation: Carmen Smith, Lizette Ortega	3	2	Primary Instructor	100%

<u>Semester/Year</u>	<u>Course Title/Number</u>	<u>Semester Hours</u>	<u># Students</u>	<u>Role</u>	<u>Percent Responsible</u>
Fall 2012	185:300 Dissertation in Statistical Genetics: Xiangjun Xiao		1	Primary Instructor	100%
Spring 2013	171:203 Biostat Methods in Categorical Data	3	21	Primary Instructor	100%
Spring 2013	171:295:050 Research in Biostatistics: Lizette Ortega	3	1	Primary Instructor	100%
Spring 2013	171:300:050 Thesis/Dissertation: Carmen Smith	3	1	Primary Instructor	100%
Fall 2013	171:241 Applied Categorical Data Analysis	3	18	Primary Instructor	100%
Fall 2013	200:299:050 Research for Dissertation: Yang Xu	3	1	Primary Instructor	100%
Spring 2014	BIOS:5730:0001 Biostat Methods in Categorical Data	3	14	Primary Instructor	100%
Fall 2014	171:300 Thesis/Dissertation: Lizette Ortega, Carmen Smith	3	1	Primary Instructor	100%
Fall 2014	BIOS:6110 Applied Categorical Data Analysis	3	23	Primary Instructor	100%
Spring 2015	BIOS:5730:0001 Biostatistical Methods Categorical Data	3	6	Primary Instructor	100%
Spring 2015	BIOS:7900:0050 Thesis/Dissertation		1	Primary Instructor	100%
Fall 2015	BIOS:6110:0001 Applied Categorical Data Analysis	3	14	Primary Instructor	

<u>Semester/Year</u>	<u>Course Title/Number</u>	<u>Semester Hours</u>	<u># Students</u>	<u>Role</u>	<u>Percent Responsible</u>
Spring 2016	BIOS:5730:0001 Biostatistical Methods Categorical Data	3	11	Primary Instructor	100%
Spring 2016	BIOS:7500:0050 Preceptorship in Biostatistics		1	Primary Instructor	100%
Spring 2016	BIOS:7850:0050 Research in Biostatistics		1	Primary Instructor	100%
Fall 2016	BIOS:6110:0001 Applied Categorical Data Analysis	3	15	Primary Instructor	100%
Spring 2017	BIOS:6210:0001 Applied Survival Analysis	3	13	Primary Instructor	100%
Spring 2018	BIOS:6210:0001 Applied Survival Analysis	3	12	Primary Instructor	100%
Spring 2018	BIOS:7600:0002 Advanced Biostatistics Seminar		5	Primary Instructor	100%
Fall 2018	BIOS:6110:0001 Applied Categorical Data Analysis	3	18	Primary Instructor	100%
Spring 2019	BIOS:4120:0A01 Introduction to Biostatistics	3	23	Primary Instructor	100%
Spring 2019	BIOS:4120:0A02 Introduction to Biostatistics	3	22	Primary Instructor	100%
Spring 2019	BIOS:4120:0A03 Introduction to Biostatistics	3	22	Primary Instructor	100%
Spring 2019	BIOS:4120:0A04 Introduction to Biostatistics	3	24	Primary Instructor	100%

<u>Semester/Year</u>	<u>Course Title/Number</u>	<u>Semester Hours</u>	<u># Students</u>	<u>Role</u>	<u>Percent Responsible</u>
Spring 2019	BIOS:4120:0AAA Introduction to Biostatistics		91	Primary Instructor	100%
Fall 2019	BIOS:5130:0001 Applied Categorical Data Analysis	3	14	Primary Instructor	100%
Fall 2019	BIOS:7500:6300 Preceptorship in Biostatistics		1	Primary Instructor	100%
Spring 2020	BIOS:6210:0001 Applied Survival Analysis	3	24	Primary Instructor	100%
Spring 2021	BIOS:5730:0001 Biostatistical Methods Categorical Data	3	19	Primary Instructor	100%
Spring 2021	BIOS:6210:0001 Applied Survival Analysis	3	15	Primary Instructor	100%

B. Course Materials (syllabi, instructional web pages, computer lab materials) (Description only - *full materials to be included in promotion dossier*)

III. SCHOLARSHIP

A. Publications or Creative Works

1. Peer-Reviewed Papers

1. Wang K, Vieland V, Huang J (1999). A Bayesian approach to replication of linkage findings. *Genet Epidemiol* 17(Supplement 1):S749-S754. PMID: 10597525
2. Collaborative Linkage Study of Autism: , Barret S, Beck J, Berniew R, Bisson E, Braun T, Cassavant T, Childress D, Folstein SE, Garcia M, Gardiner MB, Gilman S, Haines JL, Hopkins K, Landa R, Meyer NH, Mullane JA, Nishimura DY, Palmer P, Piven J, Prudy J, Santangelo SL, Searby C, Sheffield VC, Singleton J, Slager S, Struchen T, Svenson S, Vieland VJ, Wang K, Winklosky B (1999). An autosomal genomic screen for autism. *Am J Med Genet* 88(6):609-615. PMID: 11811142
3. Wang K, Huang J, Vieland VJ (2000). The consistency of the posterior probability of linkage. *Ann Hum Genet* 64(Part 6):533-553. PMID: 11281217

4. Wang K, Huang J, Logue M, Vieland VJ (2001). Combined multipoint analysis of multiple asthma data sets based on the posterior probability of linkage. *Genet Epidemiol* 21(Supplement 1):S73-S78. PMID: 11793769
5. Bradford Y, Haines J, Hutcheson H, Gardiner M, Braun T, Sheffield V, Cassavant T, Huang W, Wang K, Vieland V, Folstein S, Santangelo S, Piven J (2001). Incorporating language phenotypes strengthens evidence of linkage to autism. *Am J Med Genet* 105(6):539-547. PMID: 11496372
6. Huang J, Vieland VJ, Wang K (2001). Nonparametric estimation of marginal distributions under bivariate truncation with application to testing for age-of-onset anticipation. *Statistica Sinica*, 11:1047-1068.
7. Vieland VJ, Wang K, Huang J (2001). Power to detect linkage based on multiple sets of data in the presence of locus heterogeneity: Comparative evaluation of model-based linkage methods for affected sib pair data. *Hum Hered* 51(4):199-208. PMID: 11287741
8. Wang K, Huang J (2002). A score-statistic approach for the mapping of quantitative-trait loci with sibships of arbitrary size. *Am J Hum Genet* 70(2):412-424. PMC: PMC384916, PMID: 11791211
9. Wang K (2002). Efficient score statistics for mapping quantitative trait loci with extended pedigrees. *Hum Hered* 54(2):57-68. PMID: 12566738
10. Wang K, Huang J (2002). Score test for mapping quantitative-trait loci with sibships of arbitrary size when the dominance effect is not negligible. *Genet Epidemiol* 23(4):398-412. PMID: 12432506
11. Morcuende JA, Minhas R, Dolan L, Stevens J, Beck J, Wang K, Weinstein SL, Sheffield V (2003). Allelic variants of human melatonin 1-A receptor (hMel-1A) in patients with familial adolescent idiopathic scoliosis. *Spine* 28(17):2025-2029. PMID: 12973153
12. Zhang X, Wang K (2003). Bivariate linkage analysis of cholesterol and triglyceride levels in Framingham heart study. *BMC Genet* 4(Supplement 1):S62. PMC: PMC1866500, PMID: 14975130
13. Yang X, Wang K, Huang J, Vieland VJ (2003). Genome-wide linkage analysis of blood pressure under locus heterogeneity. *BMC Genet* 4(Supplement 1):S78. PMC: PMC1866517, PMID: 14975146
14. Wang K, Peng Y (2003). Linkage analysis of systolic blood pressure: A score statistic and computer implementation. *BMC Genet* 4(Supplement 1):S77. PMC: PMC1866516, PMID: 14975145
15. Wang K (2003). Mapping quantitative trait loci using multiple phenotypes in general pedigrees. *Hum Hered* 55(1):1-15. PMID: 12890921
16. Wang K (2003). Score tests for epistasis models on quantitative traits using general pedigree data. *Genet Epidemiol* 25(4):314-326. PMID: 14639701
17. Wang K (2004). A note on asymptotic properties of affected-sib-pair linkage tests. *Ann Hum Genet* 68(Part 4):367-375. PMID: 15225162

18. Wang K, Sheffield VC (2005). A constrained-likelihood approach to marker-trait association studies. *Am J Hum Genet* 77(5):768-780. PMC: PMC1271386, PMID: 16252237
19. Wang K (2005). A likelihood approach for quantitative-trait-loci mapping with selected pedigrees. *Biometrics* 61(2):465-473. PMID: 16011693
20. Sander MD, Abbasi D, Ferguson AL, Steyers CM, Wang K, Morcuende JA (2005). The prevalence of hereditary neuropathy with liability to pressure palsies in patients with multiple surgically treated entrapment neuropathies. *Journal of Hand Surgery-American* 30A(6):1236-1241. PMID: 16344182
21. Wang K, Peng Y (2006). Quantitative-trait-locus mapping in the presence of locus heterogeneity. *Ann Hum Genet* 70(Part 6):882-892. PMID: 17044863
22. Bishop JR, Wang K, Moline J, Ellingrod VL (2007). Association analysis of the metabotropic glutamate receptor type 3 gene (GRM3) with schizophrenia. *Psychiatr Genet* 17(6):358. PMID: 18075480
23. Fingert JH, Alward WM, Kwon yH, Wang K, Streb LM, Sheffield VC, Stone EM (2007). LOXL1 mutations are associated with exfoliation syndrome in patients from the Midwestern United States. *American Journal of Ophthalmology*, 144(6):974-975. PMID: 18036875
24. Wang K, Abbott D (2008). A principal components regression approach to multilocus genetic association studies. *Genet Epidemiol* 32(2):108-118. PMID: 17849491
25. Wang K (2008). An analytic study of the power of popular quantitative-trait-locus mapping methods. *Behav Genet* 38(5):554-559. PMID: 18766435
26. Ho BC, Epping E, Wang K, Andreasen NC, Librant A, Wassink TH (2008). Basic helix-loop-helix transcription factor NEUEOG1 and schizophrenia: Effects on illness susceptibility, MRI brain morphometry and cognitive abilities. *Schizophrenia Research* 106(2-3):192-199. PMC: PMC2597152, PMID: 18799289
27. Wang K (2008). Genetic association tests in the presence of epistasis or gene-environment interaction. *Genet Epidemiol* 32(7):606-614. PMID: 18435472
28. Maddox C, Wang BX, Kirby PA, Wang K, Ludewig (2008). Mutagenicity of 3-methylcholanthrene, PCB3, and 4-OH-PCB3 in the lung of transgenic BigBlue® rats. *Environmental Toxicology and Pharmacology* 25(2):260-266. PMC: PMC2346436, PMID: 18438460
29. Zhang Y, Xiao X, Wang K (2009). Accommodating population stratification in case-control association analysis: a new test and its application to genome-wide study on rheumatoid arthritis. *BMC Proceedings* 3(Suppl 7):S111. PMC: PMC2795883, PMID: 20017976
30. Xiao X, Zhang Y, Wang K (2009). Association of KCNB1 to rheumatoid arthritis via interaction with HLA-DRB1. *BMC Proceedings* 3(Suppl 7):S134. PMC: PMC2795908, PMID: 20018001
31. Wang K (2009). Testing for genetic association in the presence of population stratification in genome-wide association studies. *Genet Epidemiol* 33(7):637-645. PMID: 19235185

32. Jacobus JA, Wang B, Maddox C, Esch H, Lehmann L, Robertson LW, Wang K, Kirby P, Ludewig G (2010). 3-Methylcholanthrene (3-MC) and 4-Chlorobiphenyl (PCB3) genotoxicity is gender-related in Fischer 344 transgenic rats. *Environ Int* 36(8):970-979. PMC: PMC2949545, PMID: 20739065
33. Fingert JH, Alward WL, Wang K, Yorio T, Clark AF (2010). Assessment of SNPs associated with the human glucocorticoid receptor in primary open-angle glaucoma and steroid responders. *Mol Vis*, 16:596-601. PMC: PMC2848919, PMID: 20376328
34. Hu D, Lehmler H, Martinez A, Wang K, Hornbuckle KC (2010). Atmospheric PCB congeners across Chicago. *Atmos Environ* 44(12):1550-1557. PMC: PMC3171135, PMID: 21918637
35. Schindler EI, Nylen EL, Ko AC, Affatigato LM, Heggen AC, Wang K, Sheffield VC, Stone EM (2010). Deducing the pathogenic contribution of recessive ABCA4 alleles in an outbred population. *Hum Mol Genet* 19(19):3693-3701. PMC: PMC2935854, PMID: 20647261
36. Sun X, Sui H, Fisher JT, Yan Z, Lui X, Cho HJ, Joo NS, Zhang Y, Zhou W, Lei-Butters DC, Yi Y, Griffin MA, Naumann P, Luo M, Ascher J, Wang K, Wine JJ, Meyerholz DK, Engelhardt JF (2010). Disease phenotype of a ferret CFTR-knockout model of cystic fibrosis. *J Clin Invest* 120(9):3149-3160. PMC: PMC2929732, PMID: 20739752
37. Shyy W, Wang K, Sheffield VC, Morcuende JA (2010). Evaluation of embryonic and perinatal myosin gene mutations and the etiology of congenital idiopathic clubfoot. *J Pediatr Orthop* 30(3):231-234. PMC: PMC2913130, PMID: 20357587
38. Shyy W, Wang K, Gurnett CA, Dobbs MB, Smith NH, Wise C, Sheffield VC, Morcuende JA (2010). Evaluation of GPR50, hMel-1B, and ROR-alpha melatonin-related receptors and the etiology of adolescent idiopathic scoliosis. *J Pediatr Orthop* 30(6):539-543. PMC: PMC2928583, PMID: 20733416
39. Martinez A, Wang K, Hornbuckle KC (2010). Fate of PCB congeners in an industrial harbor of Lake Michigan. *Environ Sci Technol* 44(8):2803-2808. PMC: PMC3257175, PMID: 20131898
40. Lively GD, Jiang B, Hedberg-Buenz A, Chang B, Peterson GE, Wang K, Kuehn MH, Anderson MG (2010). Genetic dependence of central corneal thickness among inbred strains of mice. *Invest Ophthalmol Vis Sci* 51(1):160-171. PMC: PMC2869057, PMID: 19710407
41. Xie W, Wang K, Robertson LW, Ludewig G (2010). Investigation of mechanism(s) of DNA damage induced by 4-monochlorobiphenyl (PCB3) metabolites. *Environment International* 36(8):950-961. PMC: PMC2888624, PMID: 20129669
42. Xie W, Ludewig G, Wang K, Lehmler H (2010). Model and cell membrane partitioning of perfluorooctanesulfonate is independent of the lipid chain length. *Colloids and Surfaces, B, Biointerfaces* 76(1):128-136. PMC: PMC2818369, PMID: 19932010
43. Martinez A, Norstrom K, Wang K, Hornbuckle KC (2010). Polychlorinated biphenyls in the surficial sediment of Indiana Harbor and Ship Canal, Lake Michigan. *Environment International* 36(8):849-854. PMC: PMC2888873, PMID: 19268364
44. Lively GD, Koehn D, Hedberg-Buenz A, Wang K, Anderson M (2010). Quantitative trait loci associated with murine central corneal thickness. *Physiological Genomics* 42(2):281-286. PMC: PMC3032283, PMID: 20423963

45. Kuehn MH, Wang K, Roos B, Stone EM, Kwon YH, Alward WL, Mullins RF, Fingert JH (2011). Chromosome 7q31 POAG locus: ocular expression of caveolins and lack of association with POAG in a US cohort. *Mol Vis*, 17:430-435. PMC: PMC3038208, PMID: 21321670
46. Lai IK, Chai Y, Simmons D, Watson WH, Tan R, Haschek WM, Wang K, Wang B, Ludewig G, Robertson LW (2011). Dietary selenium as a modulator of PCB 126-induced hepatotoxicity in male Sprague Dawley rats. *Toxicol Sci* 124(1):202-214. PMC: PMC3196656, PMID: 21865291
47. Mullins RF, Dewald AD, Streb LM, Wang K, Kuehn MH, Stone EM (2011). Elevated membrane attack complex in human choroid with high risk complement factor H genotypes. *Exp Eye Res* 93(4):565-567. PMC: PMC3206185, PMID: 21729696
48. Mullins RF, Skeie JM, Folk JC, Solivan-Timpe FM, Oetting TA, Huang J, Wang K, Stone EM, Fingert JH (2011). Evaluation of variants in the selectin genes in age-related macular degeneration. *BMC Med Genet*, 12:58. PMC: PMC3096910, PMID: 21521525
49. Fabbro S, Kahr WH, Hinckley J, Wang K, Moseley J, Ryu GY, Nixon B, White JG, Bair T, Schutte B, Paola JD (2011). Homozygosity mapping with SNP arrays confirms 3p21 as a recessive locus for gray platelet syndrome and narrows the interval significantly. *Blood* 117(12):3430-3434. PMC: PMC3069679, PMID: 21263149
50. Kahr WH, Hinckley J, Li L, Schwertz H, Christensen H, Rowley JW, Pluthero FG, Urban D, Fabbro S, Nixon B, Gadzinski R, Storck M, Wang K, Ryu G-, Jobe SM, Schutte BC, Moseley J, Loughran NB, Parkinson J, Weyrich AS, Di Paola J (2011). Mutations in NBEAL2, encoding a BEACH protein, cause gray platelet syndrome. *Nat Genet*, 43:738-740. PMID: 21765413
51. Liu J, Wang K, Ma S, Huang J (2011). Regularized regression method for genome-wide association studies. *BMC Proceedings* 5(Supplement 9):S67. PMC: PMC3287906, PMID: 22373491
52. Mikulski M, Hartley P, Sprince N, Sanderson W, Lourens S, Worden N, Wang K, Fuortes L (2011). Risk and significance of chest radiograph and pulmonary function abnormalities in an elderly cohort of former nuclear weapons workers. *J Occup Environ Med* 53(9):1046-1053. PMID: 21866051
53. Wang B, Robertson LW, Wang K, Ludewig G (2011). Species difference in the regulation of cytochrome P450 2S1: Lack of induction in rats by the aryl hydrocarbon receptor agonist PCB126. *Xenobiotica* 41(12):1031-1043. PMC: PMC3564674, PMID: 21970748
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153. Wang K, Han S (2021). Effect of selection bias on two sample summary data based Mendelian randomization. *Scientific Reports*. (Accepted/In Press)
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156. Brastrom L, Scott CA, Wang K, Slusarski D (2021). Functional role of the RNA binding protein Rbm24a and its target sox2 in microphthalmia. *Biomedicines*. (Accepted/In Press)
157. Davis M, Huang YA, Wang K (2021). Rank Normalization Empowers a t-test for Microbiome Differential Abundance Analysis while Controlling for False Discoveries. *Briefings in Bioinformatics*. (Accepted/In Press)

2. Non-Peer-Reviewed Papers (reports, proceedings, etc.)

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2. König IR, Nsengimana J, Papachristou C, Simonson MA, Wang K, Weisburd JA (2011). Multiple Testing in High-Throughput Sequence Data: Experiences from Group 8 of the Genetic Analysis Workshop 17. *GAW 17*

3. Books/Monographs

4. Chapters

1. Huang J, Wang K (2003). Semiparametric methods for mapping quantitative trait loci. H. Zhang & J. Huang (Eds.), *Development of Modern Statistics and Related Topics*, New Jersey: *World Scientific Publishing Co*, 1:262-271.

5. Electronic Publications

6. Abstracts

1. Wang K, Huang J, Vieland VJ (1997). Combining results in linkage study: An empirical Bayes approach. *Am J Hum Genet* 61(Suppl):A299.
2. The Collaborative Linkage Study of Autism (CLSA) (1998). Results of a genomic screen for autism include strong evidence of linkage to chromosome 13. *Am J Hum Genet* 63(Suppl):77.
3. Vieland VJ, Wang K, Huang J (1999). A new linkage analysis method for complex disorders based on multiple sets of data. *Am J Hum Genet* 65(Suppl 1):A450.
4. Goedken R, Crowe R, Deng Z, Fyer AJ, Haghghi V, Heiman G, Hodge SE, Knowles JA, Vieland VJ, Wang K, Weissman MM (1999). Drawbacks of genehunter for larger pedigrees: Application to panic disorder. *Molecular Psychiatry* 4(Suppl 1):S10.
5. Wang K, Braun TA, Sheffield VC (2000). A novel method for estimation of short tandem repeat polymorphic marker allele frequencies from pooled DNA samples. *Am J Hum Genet* 67(Suppl):336.

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7. Wang K (2000). On the maximization procedure of the heterogeneity LOD in Genehunter. *Genet Epidemiol*, 19:276.
8. Vieland VJ, Huang J, Wang K (2000). Summed vs. averaged LOD scores: Which represents the true evidence for linkage based on multiple independent data sets? *Genet Epidemiol*, 19:275.
9. Huang J, Vieland VJ, Wang K (2000). The null distribution of the heterogeneity LOD score (HLOD) does depend on the assumed genetic model for the trait. *Genet Epidemiol*, 19:253.
10. Vieland Vj, Ludington E, Wang K, Huang J (2000). The posterior probability of linkage (PPL) incorporating prior genomic information is efficient for detection of linkage and estimation of male/female recombination rates for complex disorders. *Am J Hum Genet* 67(Suppl 2):328.
11. Huang J, Wang K, Vieland VJ (2000). The use of summed maximum lods as a simple and approximate measure of evidence for linkage based on multiple independent data sets. *Am J Hum Genet* 67(Suppl 2):324.
12. Wang K, Huang J (2001). A score test for detecting quantitative trait loci using sibships of arbitrary sizes. *Am J Hum Genet*, 69:514.
13. Wang K (2002). Efficient score statistics for mapping quantitative trait loci using multiple phenotypes. *Genet Epidemiol*, 23:309.
14. Wang K (2002). Score statistics for mapping quantitative trait loci with extended pedigrees. *Am J Hum Genet*, 71:571.
15. Wang K, Peng Y (2003). Locus heterogeneity models for quantitative traits and related test statistics. *Genet Epidemiol*, 25:134.
16. Wang K (2003). On asymptotic properties of affected-sib-pair linkage tests. *Genet Epidemiol*, 25:132.
17. Carelli V, Wang K, Valentino ML (2003). Segregation analysis of a large LHON pedigree is consistent with the existence of a nuclear modifying gene. *Investigative Ophthalmology & Visual Science* 44(Suppl 1):937.
18. Wang K (2003). Using trait data and marker data simultaneously: QTL mapping adaptive to the extent of selection. *Genet Epidemiol*, 25:133.
19. Paola JD, Rickard M, Murray J, Burns T, Wang K, Shapiro A (2006). A Genome-Wide Linkage Scan of a Large Amish Pedigree with Von Willebrand Disease (VWD) Identified Several Chromosomal Regions That May Contain Potential Modifiers of Von Willebrand Factor (VWF) Levels and Disease Variability. *Blood* 108(11):56A.
20. Marek R, Wang K, DeWall J, Thorne PS, Hornbuckle KC (2012). PCBs and OH-PCBs in Serum from Children and Mothers in Urban and Rural Communities. *SETAC North America 33rd Annual Meeting*

21. Thorne PS, Honbuckle KC, DeWall J, Marek RF, Hu D, Schulz T, Butler-Dawson J, Xie W, Wang K (2012). The AESOP Study: Assessing exposure to PCBs in children and their mothers in at-risk and baseline communities. *The 7th International PCB Workshop in Arachon, France*

7. Other

1. Wang K (2012). R package iGasso. cran.r-project.org/web/packages/iGasso/index.html
2. Wang K (2013). R package ExactPath. cran.r-project.org/web/packages/ExactPath/index.html
3. Wang K (2017). R package iMediate <https://cran.r-project.org/web/packages/iMediate/>

B. Areas of Research Interest/Current Projects

1. Bioinformatics (Areas of Research Interest)
2. Collaborative research on all the funded projects (Area of Research Interest)
3. Large data analysis (Area of Research Interest)
4. Mediation analysis (Methodology development)
5. Omics data analysis (Areas of Research Interest)
6. Statistical genetics (Area of Research Interest)

C. Sponsored Research (ALL grants)
 (if you are not the PI, state your role or contributions - in a few sentences)

1. Grants Received

Source Title P.I.	Number of Months % Effort	Direct Funds Period of Funding
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P30 ES005605 National Institutes of Health <i>Environmental Health Sciences Research Center</i> Peter Thorne, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	8%	\$995,971 09/29/1990- 03/31/2022
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Building on a 26-year history, the Environmental Health Sciences Research Center (EHSRC) will advance and translate cutting edge research that addresses environmental health problems across the urban-rural continuum. The EHSRC vision is to be the primary environmental health sciences (EHS) resource for improving the health of rural residents by stimulating and translating innovative EHS research. Center goals are to: 1) Develop, support and expand innovative interdisciplinary EHS research in key Thematic Areas; 2) Recruit, mentor and nurture talented new and mid-level investigators in EHS; and 3) Engage with communities and policy makers to translate research findings toward improving the health and environment of rural people in the Midwest and the nation.

Source Title P.I.	Number of Months % Effort	Direct Funds Period of Funding
R01 DC002842 NIH <i>Non-Syndromic Hearing Loss - A Collaborative Study</i> Richard Smith, <i>Investigator</i> Kai Wang, <i>Co-Investigator</i> <i>The identification of ARNSD genes lead to the development of novel therapies to treat deafness; the ability to recognize specific types of genetic deafness has made comparative studies of genotype, phenotype and habilitative outcome feasible; and the use of genetic testing to diagnose many types of ARNSD has changed the medical evaluation of the deaf person. This grant will continue to focus on these three areas by completing specific aims: 1) to identify novel ARNSD genes; 2) to define genotype-phenotype associations in persons with DFNB1 deafness; 3) to study Pendred syndrome as a complex disease, focusing on the role of FOXI1 and its interacting partners in the Pendred syndrome phenotype.</i>	8%	\$346,468 09/30/1996- 08/31/2019
College of Public Health-College of Medicine New Investigator Award <i>Linkage analysis under linkage disequilibrium and disease locus heterogeneity</i> Kai Wang, <i>Principal Investigator</i>	0%	01/01/2001- 12/31/2001
R01 NIMH <i>Sampling models and methods for complex genetic diseases</i> Veronica Vieland, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	25%	03/01/2001- 07/31/2003
R01 NIH <i>A collaborative linkage study of autism</i> Val Sheffield, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	21%	03/01/2001- 05/31/2001

Source Title P.I.	Number of Months % Effort	Direct Funds Period of Funding
R01 NIH <i>Molecular Biology of Syndromic Retinal Degeneration</i> Val Sheffield, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	10.1%	08/01/2002- 07/30/2007
R01 NIH <i>Infrastructure to Facilitate Discovery of Autism Genes</i> Veronica Vieland, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	17%	08/01/2002- 07/31/2003
COM HHMI Pilot Collaborative project <i>Genetic Mapping of Familial Adolescent Idiopathic Scoliosis</i> Jose Morcuende, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	0%	01/01/2003- 12/31/2005
R01 NIMH <i>A novel approach for finding genes in autism</i> Tom Wassink, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	25%	07/01/2003- 08/31/2003
University of Iowa, Mathematical & Physical Sciences Funding Program <i>Locating genes responsible for continuous traits: A software tool</i> Kai Wang, <i>Principal Investigator</i>	0%	01/01/2005- 12/31/2005
R01 EY010564-12 NIH <i>Molecular Genetics of Hereditary Glaucoma</i> Val Sheffield, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	10%	01/01/2006- 12/31/2011

Source Title P.I.	Number of Months % Effort	Direct Funds Period of Funding
P42 ES013661 NIH <i>Semi-Volatile PCBs: Sources, Exposures, Toxicities</i> Keri Hornbuckle, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i> <i>This is the technology transfer administrative supplement for the Iowa Superfund Research Program and provides administrative oversight, statistical consulting, research results reporting, and serves as a liaison between the stakeholders, University officials, and the SRP.</i>	15%	05/12/2006-01/31/2025
P42 ES013661 NIH/NIEHS <i>Semi-Volatile PCBs: Sources, Exposures, Toxicities (Superfund Research Program for the Administrative Core)</i> Larry Robertson, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i> <i>The Administrative Core is the focal point for the Research Projects and Cores of the Iowa Superfund Research Program and provides administrative oversight, statistical consulting, research results reporting, and serves as a liaison between the stakeholders, University officials, and the SRP.</i>	1.68 months 14%	05/12/2006-03/31/2020
NIH-NHLBI 7 R01 HL084086 NIH <i>Genetic Modifiers of von Willebrand Disease</i> Jorge D. Paola, <i>Principal Investigator</i> Kai Wang, <i>Collaborator</i>	12%	\$225,000 02/01/2007-01/31/2012
R01 CA122934-01A2 NIH <i>Elderly Cancer Survivors: Cognitive Outcomes and Markers of Neurodegeneration</i> Susan Schultz, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	5%	07/01/2007-06/30/2008

Source Title P.I.	Number of Months % Effort	Direct Funds Period of Funding
R01 EY017673 NIH <i>Genetic Dissection of Pigmentary Glaucoma</i> Michael Anderson, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	0.12 months 1%	\$200,000 04/01/2008- 01/31/2018
<p><i>Glaucoma is a leading cause of irreversible blindness and visual disability that has a major impact on the quality of life and productivity of millions of Americans. With no new pharmaceutical classes for treating glaucoma introduced into clinical practice since the 1990s, there remains a continuing need for improved regimes that treat glaucoma more effectively. Our long-term goal is to contribute to the development of these improved therapies by utilizing synergistic genetic approaches with mice and humans. Our objective in this proposal is to utilize and build on these resources to study molecular events contributing to pigment dispersion and its conversion to pigmentary glaucoma. To accomplish this, we propose: (SA1) to identify suppressors of pigmentary glaucoma using hereditary mouse models, (SA2) to define predictors of ocular responses to pigment dispersion using inducible mouse models, and (SA3) to identify genes linked with pigmentary glaucoma using human patient cohorts.</i></p>		
3 U01 MH070010-03S1A2 NIH <i>Prediction of Relapse in Schizophrenia</i> Del D. Miller, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>		07/01/2008- 12/31/2010
Environmental Health Sciences Research Center (EHSRC) Pilot Grant <i>Robust Statistical Methods for Studies of Susceptibility to Environmentally Induced Diseases</i> Kai Wang, <i>Principal Investigator</i>	0%	\$23,200 04/01/2009- 03/31/2010

Source Title P.I.	Number of Months % Effort	Direct Funds Period of Funding
5 T15 HL097622 NIH <i>Iowa Summer Institute in Biostatistics (ISIB)</i> Kathryn M. Chaloner, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	0.48 months 4%	\$217,159 08/20/2009- 02/28/2016
<i>There is a nationwide shortage of biostatisticians and the shortage is having a negative impact on medical and public health research. The goal of this proposed program is to increase the number of minority undergraduates who enter graduate programs in Biostatistics or related areas. Instruction will be through case-based instruction of real biomedical research; computer laboratory training; projects; and clinical and translational research enrichment activities.</i>		
High Q Foundation <i>Neurobiological Predictors of Huntington's Disease – Biostatistics Core</i> Jane Paulsen, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	15%	\$8,378,958 12/14/2009- 04/30/2011
5 P42 ES013661 NIH/NIEHS <i>Semi-Volatile PCBs: Sources, Exposures, Toxicities (Superfund Research Program for the Administrative Core)</i> Larry Robertson, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	1.68 months 14%	\$2,022,661 04/01/2010- 03/31/2015
<i>The Administrative Core is the focal point for the Research Projects and Cores of the Iowa Superfund Research Program and provides administrative oversight, statistical consulting, research results reporting, and serves as a liaison between the stakeholders, University officials, and the SRP.</i>		
R01 EY017451 NIH <i>Choriocapillaris Activation in Macular Degeneration</i> Robert Mullins, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	10%	\$1,326,088 06/01/2010- 07/31/2012

Source Title P.I.	Number of Months % Effort	Direct Funds Period of Funding
5 R01 EY018825 NIH <i>Genetics of Quantitative Traits Associated with Glaucoma</i> John Fingert, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	1.2 months 10%	\$401,499 07/01/2010- 06/30/2014
5 R01 EY016822 NIH <i>Molecular Genetics of Age Related Macular Degeneration</i> Edwin Stone, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	0.6 months 5%	\$350,712 09/01/2010- 05/31/2015
<i>This project aims to identify new AMD genes with next-generation sequencing and identify phenotypic-expression-based subtypes of disease.</i>		
5 R01 CA122934-05 NIH <i>Elderly Cancer Survivors: Cognitive Outcomes and Markers of Neurodegeneration</i> Susan Schultz, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	5%	\$136,800 04/01/2011- 03/31/2012

Source Title P.I.	Number of Months % Effort	Direct Funds Period of Funding
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R24 DK096518 NIH <i>Early Pathogenesis of Cystic Fibrosis Related Diabetes</i> John Engelhardt, Investigator Kai Wang, Statistician	5%	\$1,071,925 08/15/2012- 06/30/2020
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Cystic Fibrosis (CF) is the most common life-threatening autosomal recessive condition among Caucasians, with over \$450 million dollars spent annually on clinical care of CF patients in the U.S. alone. Cystic fibrosis related diabetes (CFRD) is the most common severe complication of CF and is well known to be associated with increased mortality and a decline in lung function. This study will characterize early disease mechanisms that lead to the development of CFRD in animal models and humans, with the long-term goal of developing improved therapies and biomarkers for early diagnosis and treatment of this disease.

R01 EY023187 NIH <i>Genetic Determinants of Optic Nerve Head Structure</i> Todd Scheetz, Principal Investigator Kai Wang, Co-Investigator	1.2 months 10%	\$271,185 03/01/2013- 02/28/2016
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The ultimate goal of this research proposal is identify biomarkers and/or genetic risk factors that accurately predict: (1) primary optic nerve head (ONH) structure (i.e. before age- or disease-related changes), (2) changes in ONH structure, and (3) the development of irreversible glaucomatous optic nerve damage before it occurs. These outcomes will improve the specificity and sensitivity of initial diagnosis of glaucoma, allowing clinicians to determine the proportion of ONH structure change that is damage from this disease, as opposed to normal variations in primary ONH structure. This in turn will allow the application of currently available and effective therapies to be instituted before vision is lost.

Source Title P.I.	Number of Months % Effort	Direct Funds Period of Funding
R01 ES022163 NIH <i>Vulnerability of the Adolescent Brain to Organophosphorus Pesticides</i> Diane Rohlman, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	6%	\$485,074 03/04/2013- 10/31/2019
<p><i>Despite evidence from human and animal studies that clearly identifies neurotoxicity as the primary adverse endpoint, the long-term effects of repeated occupational and environmental exposures to organophosphorus pesticides (OPs) remain poorly understood. There is also a critical need to investigate the susceptibility of children and adolescents to pesticides, since the developing brain may be uniquely sensitive to the neurotoxic effects of these agents. We propose a longitudinal study to investigate the relationship between sensitive and specific biomarkers of pesticide exposure, effect and susceptibility and multiple measures of neurobehavioral function in this unique cohort over a 5-year period to assess cumulative and potentially reversible effects.</i></p>		
R01 HG008348 National Institutes of Health <i>Interactive Multimedia Consent for Biobanking</i> Christian Simon, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	5%	\$464,592 08/10/2015- 05/31/2018
<p><i>To support next-generation genomic research and science, many biobanks in the U.S. consent thousands of contributors of biospecimens and health information. There is growing interest in the efficiency of electronic consenting (e-consent) given the scale of these efforts. The long-term objective of this three-year (R01) study is to improve the efficiency and effectiveness of informed consent through use of systematically developed e-consent tools. Overall, the study is expected to contribute to ethical, cost-effective genomic research recruitment efforts through in-depth empirical knowledge of IM consenting technology.</i></p>		

Source Title P.I.	Number of Months % Effort	Direct Funds Period of Funding
R01 EY026087 National Institutes of Health <i>Unraveling the 10q AMD Risk Locus</i> Edwin Stone, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	8.3%	\$325,084 09/01/2016- 08/31/2020
<i>In this study, we will take advantage of molecular genetics, state of the art computer-assisted image analysis, large patient populations, donor eye tissue, induced pluripotent stem cells and CRISPR based genome editing to determine the molecular mechanism through which variations at the 10q AMD locus increase the risk of AMD.</i>		
R21 ES027169 National Institutes of Health <i>PCB Enantiomers Implicated in Neurodevelopmental Disorders: Identification of Individual Metabolic Factors that Determine Risk and Vulnerability</i> Hans-Joachim Lehmler, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	10%	\$150,000 09/01/2017- 08/31/2020
<i>The long-term goal of this project is to determine how inter-individual differences in enantioselective PCB metabolism affect the susceptibility to PCB-mediated neurodevelopmental disorders following environmental exposures and, ultimately, reduce the burden of these diseases.</i>		
EHSRC Pilot Grant Environmental Health Sciences Research Center <i>Prospective Investigation of Environment Exposure to BPA and BPA Substitutes in Early Pregnancy in Relation to Pregnancy Complications</i> Buyun Liu, <i>Principal Investigator</i> Kai Wang, <i>Investigator</i>		\$40,000 09/01/2017- 08/31/2018

Source Title P.I.	Number of Months % Effort	Direct Funds Period of Funding
R21 HD91458 National Institutes of Health <i>Pregnancy-Associated microRNAs in Plasma as Predictors of Gestational Diabetes</i> Wei Bao, <i>Principal Investigator</i> Kai Wang, <i>Co-Investigator</i>	5%	\$150,000 09/10/2017- 06/30/2020
LARSON18A0 Cystic Fibrosis Foundation <i>EnVision CF Multicenter Study of Glucose Tolerance in Cystic Fibrosis</i> Katie Larson Ode, <i>Principal Investigator</i> Kai Wang, <i>Statistician</i>	5%	09/01/2018- 08/31/2020
<p><i>Cystic Fibrosis Related Diabetes (CFRD) has been identified by the cystic fibrosis (CF) community as one of the top ten priorities for CF research. We know that high blood sugars caused by not enough insulin lead to worse lung function in CF even before diabetes develops. However, we do not know which people with abnormal blood sugars will have long term problems. In our study, we will obtain blood sugar levels, insulin (the hormone that controls blood sugar) and C-peptide (a protein that tells us about the body's ability to make insulin) levels from frequently-sampled Oral Glucose Tolerance Testing (fsOGTT). We will save all the extra blood from the fsOGTT tests to make a biobank (a bank of stored blood samples) which can be used for future studies to better understand diabetes and abnormal blood sugar in CF.</i></p>		
No Contract # US Department of Veterans Affairs, Iowa City <i>VA-IPA: Effect of Gut Microbiome Dysbiosis in the Pathology of Multiple Sclerosis</i> Kai Wang, <i>Principal Investigator</i>	10%	02/01/2021- 01/31/2022
<p><i>Dr. Kai Wang will serve as a Professor of Biostatistics for Dr. Ashutosh Mangalam in the execution of the VACO funded Merit Review entitled "Effect of Gut Microbiome Dysbiosis in the Pathobiology of Multiple Sclerosis."</i></p>		

Source Title P.I.	Number of Months % Effort	Direct Funds Period of Funding
1 RC2 DK123207 National Institutes of Health <i>Early Pathogenesis of Cystic Fibrosis Related Diabetes</i> John Engelhardt, <i>Principal Investigator</i> Kai Want, <i>Co-Investigator</i>	5%	04/30/2021- 03/31/2024

2. Grants Pending

Source Title P.I.	Number of Months % Effort	Direct Funds Period of Funding
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D. Presentations

1. Invited Presentations

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
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2. Conference Presentations/Posters

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
1997	Combining Results in Linkage Study: An Empirical Bayes Approach (Wang K, Huang J, Vieland V)	American Society of Human Genetics, Baltimore, Maryland	Poster
1998	Comprehensive Cancer Center (Wang K)	University of Alabama at Birmingham	Oral
1998	Department of Health Sciences Research (Wang K)	Mayo Clinic and Foundation	Oral
1998	Department of Statistics (Wang K)	Carnegie Mellon University	Oral
1998	Division of Human Cancer Genetics (Wang K)	Ohio State University	Oral
1998	A Bayesian Approach to Replication of Linkage Studies (Wang K, Huang J, Vieland V)	Genetic Analysis Workshop 11, Arachon, France	Poster

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
1998	Combining Results in Linkage Study: An Empirical Bayes Approach (Wang K, Huang J, Vieland V)	Inter-Iowa Genetics Symposia, Grinnell, Iowa	Poster
1998	Utilizing Genomap (a distributed laboratory information management system) in a Genomic Screen for Genes Underlying Autism (Wang K, Braun T, Scheetz T, Munn K, Casavant T, Stone E, Vieland V, Sheffield V)	Inter-Iowa Genetics Symposia, Grinnell, Iowa	Poster
1999	Division of Biostatistics (Wang K)	University of Iowa	Oral
1999	A New Linkage Analysis Method for Complex Disorders Based on Multiple Sets of Data (Wang K, Vieland V, Huang J)	American Society of Human Genetics, San Francisco, California	Poster
1999	Body Surface Area (BSA) Dosing Using Actual Body Weight (ABW) Yields Less Variation in Area Under the Concentration X on Time Curve (AUC) for High Dose IV Busulfan (BU) than BSA Dosing Using Ideal Body Weight (IBW), Adjusted Ideal Body Weight (AIBW) or Dosing Using ABW, IBW or AIBW Directly (Wang K, Vaughan W, Cagnoni P, Fernandez H, Hu W, Kashyap A, Gian V, Wingard J, Tarantolo S, Andersson B)	American Society of Clinical Oncology, Atlanta, Georgia	Poster
1999	Drawbacks of Genehunter for Larger Pedigrees: Application to Panic Disorder (Wang K, Goedken R, Crowe R, Deng Z, Fyer A, Haghighi V, Heiman G, Hodge S, Knowles J, Vieland V, Weissman M)	World Congress on Psychiatric Genetics, Monterey, California	Poster

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
2000	On the Maximization Procedure of the Heterogeneity LOD in Genehunter (Wang K)	International Genetic Epidemiology Society, San Antonio, Texas	Oral
2000	A Novel Method for Estimation of Short Tandem Repeat Polymorphic Marker Allele Frequencies from Pooled DNA Samples (Wang K, Braun T, Sheffield V)	American Society of Human Genetics, Philadelphia, Pennsylvania	Poster
2000	Summed vs. Averaged LOD Scores: Which Represents the True Evidence for Linkage Based on Multiple Independent Data Sets? (Wang K, Vieland V, Huang J)	International Genetic Epidemiology Society, San Antonio, Texas	Poster
2000	The Null Distribution of the Heterogeneity LOD Score (HLOD) Does Depend on the Assumed Genetic Model for the Trait (Wang K, Huang J, Vieland V)	International Genetic Epidemiology Society, San Antonio, Texas	Poster
2000	The Posterior Probability of Linkage (PPL) Incorporating Prior Genomic Information is Efficient for Detection of Linkage and Estimation of Male/Female Recombination Rates for Complex Disorders (Wang K, Vieland V, Ludington E, Huang J)	American Society of Human Genetics, Philadelphia, Pennsylvania	Poster
2000	The Use of Summed LOD Score as a Simple and Approximate Measure of Evidence for Linkage Based on Multiple Independent Data Sets (Wang K, Huang J, Vieland V)	American Society of Human Genetics, Philadelphia, Pennsylvania	Poster
2002	Efficient Score Statistics for Mapping Quantitative Trait Loci (Wang K)	Department of Mathematics & Statistics, Memorial University of Newfoundland, Canada	Oral

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
2002	Efficient Score Statistics for Mapping Quantitative Trait Loci Using Multiple Phenotypes (Wang K)	International Genetic Epidemiology Society, New Orleans, Louisiana	Oral
2002	Mapping Quantitative Trait Loci with General Pedigrees (Wang K)	Department of Statistics, University of Iowa	Oral
2002	Score Statistics for Mapping Quantitative Trait Loci with Extended Pedigrees (Wang K)	American Society of Human Genetics, Baltimore, Massachusetts	Oral
2002	Score Tests for Mapping Quantitative Trait Loci with General Pedigrees: Two-locus Models (Wang K)	Department of Biostatistics, University of Iowa	Oral
2003	Locus Heterogeneity Models for Quantitative Traits and Related Test Statistics (Wang K)	International Genetic Epidemiology Society, Redondo Beach, California	Oral
2003	On Asymptotic Properties of Affected-sib-pair Linkage Tests (Wang K)	International Genetic Epidemiology Society, Redondo Beach, California	Oral
2003	Using Trait Data and Marker Data in Selected Samples Simultaneously: QTL Mapping Adaptive to the Extent of Selection (Wang K)	International Genetic Epidemiology Society, Redondo Beach, California	Oral
2003	Using Trait Data and Marker Data in Selected Samples Simultaneously: QTL Mapping Adaptive to the Extent of Selection (Wang K)	Program in Public Health Genetics, University of Iowa	Oral
2003	Using Trait Data and Marker Data in Selected Samples Simultaneously: QTL Mapping Adaptive to the Extent of Selection (Wang K)	Annual meeting of the International Genetic Epidemiology Society	Oral

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
2004	A Statistical Method for Detection and Estimation of Deletion Length From a Very Dense Set of Markers (Wang K)	Program in Public Health Genetics, University of Iowa	Oral
2004	Quantitative-trait-loci Mapping with Selected Samples (Wang K)	Department of Statistics, Nankai University, Tianjin, China	Oral
2004	Some Issues Related to the Use of SNP Data (Wang K)	Dr. Val Sheffield Lab Meeting	Oral
2005	A Constrained Likelihood Approach to Marker-Trait Association Studies (Wang K)	The Joint Meeting of the Chinese Society of Probability and Statistics and the Institute of Mathematical Statistics, Beijing, China	Oral
2005	A Constrained-likelihood Approach to Genotype-trait Association Studies (Wang K)	American Society of Human Genetics, Salt Lake City, Utah	Oral
2005	A Multiallelic Test for Marker-trait Association Studies (Wang K)	International Genetic Epidemiology Society, Park City, Utah	Oral
2005	Statistical Genetics: Overview, Theory and Application (in Chinese) (Wang K)	College of Mathematics and System Science, Xinjiang University, China	Oral
2006	A Likelihood Ratio Test of Incomplete Dominance Versus Overdominance and/or Under Dominance (Wang K)	Department of Statistics and Actuarial Sciences, University of Iowa, Iowa City, Iowa	Oral
2006	A Score-based Approach to Quantitative Trait Loci Mapping in Inbred Lines Using Flanking Markers (Wang K)	Department of Biostatistics, University of Iowa, Iowa City, Iowa	Oral
2006	A Score-based Approach to Quantitative Trait Loci Mapping in Inbred Lines Using Flanking Markers (Wang K)	Department of Population Health Sciences, University of Wisconsin, Madison, Wisconsin	Oral

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
2006	Statistical Methods for Testing for 1) Overdominance, 2) Linkage Jointly to Two Loci, and 3) Association using DNA Pooling with SNP Chips (Wang K)	Dr. Val Sheffield Lab Meeting	Oral
2007	Statistical Analyses of an Autism Follow-Up Study (Wang K)	Dr. Val Sheffield Lab Meeting	Oral
2007	An Association Study of Candidate Modifier Genes in a Large Pedigree with Von Willebrand Disease	American Society of Human Genetics, Atlanta, Georgia	Poster
2007	Genome Wide Scan of Complete Blood Count (CBC) Measures Suggests Strong Linkage of Red Blood Cell (RBC) Count to Chromosome 4q25	American Society of Human Genetics, Atlanta, Georgia	Poster
September 2007	Mutagenicity of 3-methylcholanthrene, 4-monochlorobiphenyl (PCV3), and Its Metabolite 4-OH-PCB3 in the Lung of Male Transgenic BigBlue® Rats	Annual Meeting, Central States Chapter of the Society of Toxicology, Iowa City, Iowa	Poster
2008	Detection of and Correcting for the Effect of Population Stratification in the Association Analysis of Big Human Project Data (Wang K)	Dr. Val Sheffield's Lab Meeting	Oral
2008	Statistical Analysis of Data from the Big Human Project (Wang K)	Dr. Val Sheffield Lab Meeting	Oral
2008	Visualization and Evaluation of Complex Microarray Datasets (Wang K)	Dr. Larry Robertson's Lab Meeting	Oral
2008	Spatial Distribution and Sources of Atmospheric PCBs in the Chicago Urban Industrial Region	PCB Workshop, Iowa City, Iowa	Poster

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
September 2008	Testing Genetic Association in the Presence of Population Stratification (Wang K)	17th Annual Meeting, International Genetic Epidemiology Society, St. Louis, Missouri	Oral
2009	Detection of and Correcting for the Effect of Population Stratification in Genetic Association Analysis with Application to an Eye Disease Study (Wang K)	International Workshop on Probability Theory, Statistics and Their Application to Biology, Beijing, China	Oral
October 2009	A Novel Efficient Genome-wide Association Study Design: Application to Glaucoma and Age-related Macular Degeneration (Wang K)	59th Annual Meeting, American Society of Human Genetics, Honolulu, Hawaii	Poster
October 2009	Linkage Analysis in a Large Amish Pedigree with Von Willebrand Disease Identifies Regions Suggestive of Linkage and Candidate Modifier Genes	59th Annual Meeting, American Society of Human Genetics, Honolulu, Hawaii	Poster
2010	Population Structure and Studies of Susceptibility to Environmentally Induced Diseases (Wang K)	EHSRC Retreat	Oral
2010	Statistical Methods for Genetic Association Studies (Wang K)	Department of Biostatistics	Oral
March 2010	Evaluation of Embryonic and Perinatal Myosins as Candidate Genes for Idiopathic Clubfoot	Annual Meeting, American Association of Orthopaedic Surgeons, New Orleans, Louisiana	Poster
June 2010	Evaluation of Embryonic and Perinatal Myosin Gene Mutations and the Etiology of Congenital Idiopathic Clubfoot	11th EFORT Congress, European Federation of National Associations of Orthopaedics and Traumatology, Madrid, Spain	Poster

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
June 2010	Evaluation of GPR50, hMel-1B, and ROR-alpha Melatonin-receptors and the Etiology of Adolescent Idiopathic Scoliosis	11th EFFORT Congress, European Federation of National Associations of Orthopaedics and Traumatology, Madrid, Spain	Poster
October 2010	Treating Phenotype as Given: A Novel Resampling Method for Genome-Wide Association Studies (Wang K, Huang J)	Genetic Analysis Workshop 17, Boston, Massachusetts	Poster
October 8, 2012	Statistical Methods in Genetic Association Studies: Cryptic Relatedness, Population Stratification, and Rare Variants (Wang K)	Biostatistics Seminar, University of Iowa College of Public Health/Department of Biostatistics, Iowa City, Iowa	Oral
July 30, 2013	Association test in the presence of population stratification (Wang K)	Wellcome Trust Statistical Genetics Workshop, Wellcome Trust, Hinxton, England	Oral
August 4, 2013	Exact LASSO linear regression (Wang K)	2013 Joint Statistical Meetings, Montreal, Canada	Oral
April 25, 2014	An Efficient Variance Components Model for Genome-Wide Association Study with Structured Populations (Wang K)	Department seminar, Department of Epidemiology and Biostatistics Indiana University Bloomington, Bloomington, Indiana	Oral
July 14, 2014	An efficient variance components model for genome-wide association studies with structured population (Wang K)	International Workshop on Statistics Frontier and Related Topics, Xinjiang University, Xinjiang University of Finance & Economics, and Xinjiang Society of Mathematics, Urumqi, Xinjiang, China	Oral
2015	Robust estimation of 3-D chromosome structure from Hi-C chromatin interaction data (Wang K)	ENAR	Oral
April 2016	Boosting the power of the sequence kernel association test (SKAT) by properly estimating its null distribution (Wang K)	Iowa Informatics Showcase Symposium	Poster

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
May 2016	Boosting the power of the sequence kernel association test (SKAT) by properly estimating its null distribution (Wang K)	The European Human Genetics Conference 2016	Poster
July 2016	A flexible penalized integrated analysis of mRNA and miRNA expression levels as biomarkers for endometrial cancer classification (Wang K)	5th Annual Global Healthcare Conference (GHC 2016), Global Science and Technology Forum (GSTF), Singapore, Singapore	Oral
July 2016	Robust Estimation of 3-D Chromosome Structure from Hi-C Chromatin Interaction Data (Wang K)	International Conference on Applied Statistics 2016, Thai Statistical Association, Phuket, Thailand	Oral
August 2016	Conditional Inference for the Kernel Association Test (Wang K)	Joint Statistical Meetings, ASA, ENAR, and WNAR etc., Chicago, Illinois, United States	Oral
March 14, 2017	Mediation Analysis in Observational Studies Via Likelihood (Wang K)	ENAR 2017 Spring Meeting, ENAR, Washington DC	Oral

3. Other Presentations

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
2009	Detection of and Correcting for the Effect of Population Stratification in the Association Analysis of Big Human Project Data	BSAC Seminar, Department of Biostatistics	Seminar
2015	Robust estimation of 3-D chromosome structure from Hi-C chromatin interaction data (Wang K)	Applied Mathematical and Computational Sciences (AMCS)	Colloquium
2015	Robust estimation of 3-D chromosome structure from Hi-C chromatin interaction data (Wang K)	Seminar, Division of Biostatistics, University of Minnesota	Colloquium
April 24, 2017	Statistical Mediation Analysis via Likelihood (Wang K)	Department seminar, Department of Biostatistics, Iowa City, Iowa	Seminar

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
May 10, 2017	Simple bias formulas for mediation analysis with unmeasured confounding (Wang K)	9th EMR-IBS and Italian Region Conference, IBS, EMR, Thessaloniki	Conference Presentation
June 24, 2018	Big genomic data analysis and its implications (Wang K)	Department seminar, Department of Mathematics, Yili Normal University, Yining, China	Seminar
July 1, 2018	An Accurate Normalization Method for RNA-Seq Data (Wang K)	The 8th International Forum on Statistics, Renmin University of China, Beijing	Conference Presentation
July 4, 2018	Methods for genomic association mapping: Regularized regressions and SKAT+ (Wang K)	Department seminar, School of Mathematical Sciences, Nankai University, Tianjin, China	Seminar
November 1, 2018	Effects of a Treatment on the Likelihood of a Mediator and an Outcome (Wang K)	Department of Statistics and Actuarial Science Colloquia, Department of Statistics and Actuarial Science, The University of Iowa, Iowa City, Iowa	Colloquium
June 12, 2019	Maximum likelihood analysis of linear mediation models with treatment-mediator interaction (Wang K)	Department of Information and Computer Science, Wuhan University, Wuhan, China	Seminar
June 25, 2019	Maximum likelihood analysis of linear mediation models with treatment-mediator interaction (Wang K)	School of Mathematics and Statistics, Lanzhou University, Lanzhou, China	Colloquium
July 3, 2019	Maximum likelihood analysis of linear mediation models with treatment-mediator interaction (Wang K)	2019 ICASA China Conference, International Chinese Statistical Association (ICASA), Tianjin, China	Conference Presentation
July 19, 2019	Maximum likelihood analysis of linear mediation models with treatment-mediator interaction (Wang K)	2019 International Meeting of the Psychometric Society, Psychometric Society, Santiago, Chile	Conference Presentation

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
July 28, 2019	A likelihood-based analysis of the effects of a treatment on an outcome (Wang K)	2019 Joint Statistical Meeting, International Chinese Statistical Association (ICSA), Denver, Colorado, US/Puerto Rico	Conference Presentation
May 2020	Treatment Effects on an Outcome under Nonlinear Modeling (Wang K)	2020 Meeting of ISDSA, International Society for Data Science and Analytics, Notre Dame, Indiana	Conference Presentation
August 2020	"A General Method for Mediation Analysis without using Counterfactuals" (Wang K)		Virtual Oral Presentation

IV. SERVICE

A. Offices/appointments held in professional organizations

1. Editorships

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2020-Present	the Editorial Board of Quantitative Psychology and Measurement (specialty section of Frontiers in Psychology and Frontiers in Applied Mathematics and Statistics).	Reviewer, Publications

2. Review Panels

<u>Year</u>	<u>Organization</u>	<u>Position</u>
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3. Professional Organizations (state and/or national)

<u>Year</u>	<u>Organization</u>	<u>Position</u>
1999-2016	The American Society of Human Genetics	Member
1999-2012	International Genetic Epidemiology Society	Member
2005-2006	ENAR (International Biometric Society)	Member

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2009-Present	Environmental Health Sciences Research Center and the Integrative Health Sciences Facility, University of Iowa	Member
2013-Present	American Statistical Association (ASA)	Member
2015-Present	International Chinese Statistical Association (ICSA)	Member
2018-Present	American Association for the Advancement of Science (AAAS)	Member

B. Other Professional Service

1. Referee Manuscripts/Journal Reviews

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2000	Psychiatric Genetics	Reviewer
2000	Springer	Reviewer
2001	Arteriosclerosis, Thrombosis, and Vascular Biology	Reviewer
2002	A grant proposal to American Cancer Society	Reviewer
2002	American Journal of Human Genetics	Reviewer
2002	Genetic Analysis Workshop 13	Reviewer
2003	Annals of Human Genetics	Reviewer
2003	Genome Research	Reviewer
2003	Human Genetics	Reviewer
2003	Human Heredity	Reviewer
2004-2005	Genetic Epidemiology	Reviewer
2004	American Journal of Medical Genetics Part B: Neuropsychiatric Genetics	Reviewer

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2004	Biometrics	Reviewer
2004	Journal of Mathematical Biology	Reviewer
2004	Journal of the American Statistical Association	Reviewer
2004	Physiological Genomics	Reviewer
2005	Annals of Human Genetics	Reviewer
2006-2009	Human Heredity	Reviewer
2006	Psychiatric Genetics	Reviewer
2007-2010	Annals of Human Genetics	Reviewer
2007-2008	American Journal of Human Genetics	Reviewer
2007	Genetic Analysis Workshop 15	Reviewer
2007	Genetic Epidemiology	Reviewer
2008-2010	BMC Genetics	Reviewer
2008	Genetic Analysis Workshop 16	Reviewer
2008	Genome Research	Reviewer
2008	Human Genomics and Proteomics	Reviewer
2008	Special Issue of Environment International titled "PCBs: New Knowledge Gained from Old Pollutants"	Reviewer
2009-2010	BMC Informatics	Reviewer
2009-2010	Genetic Epidemiology	Reviewer
2009	Genetic Analysis Workshop 16	Reviewer
2009	Journal of Clinical Epidemiology	Reviewer
2009	Physiological Genomics	Reviewer
2010-2011	Biometrics	Reviewer

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2010	Circulation	Reviewer
2011	BMC: Bioinformatics	Reviewer
2011	Circulation: Arrhythmia and Electrophysiology	Reviewer
2011	Env. Sci. and Technology	Reviewer
2011	Genetic Analysis Workshop 17	Reviewer
2012	Biostatistics	Reviewer
2012	Circulation: Heart Failure	Reviewer
2012	Frontiers in Evolutionary and Population Genetics	Reviewer
2013	Bioinformatics	Reviewer
2013	Biostatistics	Reviewer
2013	Circulation: Heart Failure	Reviewer
2013	Frontiers in Evolutionary and Population Genetics	Reviewer
2013	Genetic Basis of Complex Disease, Garland Science	Reviewer
2013	Genetics	Reviewer
2013	Genome Research	Reviewer
2013	Human Heredity	Reviewer
2013	Journal of Computational and Graphical Statistics	Reviewer
2013	PloS One	Reviewer
2014-Present	Annals of Otology, Rhinology & Laryngology	Reviewer
2014-Present	Annals of Statistics	Reviewer
2014-Present	Circulation: Cardiovascular Interventions	Reviewer

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2014	Computational Statistics and Data Analysis	Reviewer
2014	Genetic Epidemiology	Reviewer
2014	Genetics	Reviewer
2014	Human Heredity	Reviewer
2014	Human Heredity	Reviewer
2014	Journal of Computational and Graphical Statistics	Reviewer
2014	Ophthalmologica	Reviewer
2014	Translational Research	Reviewer
2015-Present	American Journal of Human Genetics	Reviewer
2015-Present	Annals of Otolaryngology, Rhinology & Laryngology	Reviewer
2015-Present	Circulation: Arrhythmia and Electrophysiology	Reviewer
2015-Present	Statistics in Medicine	Reviewer
2016-Present	American Journal of Human Genetics	Reviewer
2016-Present	Circulation: Arrhythmia and Electrophysiology	Reviewer
2016-Present	Genetic Epidemiology	Reviewer
2016-Present	Statistica Sinica	Reviewer
2017-Present	BMJ Open	Reviewer
2017-Present	Human Heredity	Reviewer
2017-Present	Journal of Community Medicine & Public Health Care	Reviewer
2018-Present	American Journal of Human Genetics	Reviewer

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2018-Present	Bioinformatics	Reviewer
2018-Present	International Conference on Biological Information and Biomedical Engineering (BIBE) 2018	Reviewer
2018-Present	Journal of Health Science Studies	Reviewer
2018-Present	Statistical Methods in Medical Research	Reviewer
2019-Present	Psychometrika	Reviewer
2019-Present	Structural Equation Modeling: A Multidisciplinary Journal	Reviewer
2020-Present	American Journal of Human Genetics	Reviewer
2020-Present	PLoS Genetics	Reviewer
2020-Present	PLoS One	Reviewer
2020-Present	Psychometrika	Reviewer
2021-Present	Bioinformatics	Reviewer
2021-Present	PLoS Genetics	Reviewer
2021-Present	Psychometrika	Reviewer

2. Organize Conference, Paper Session, etc.

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2015	PLoS One	
2020	Invited Session/2020 ICSCA China Conference, International Chinese Statistical Association	Organizer

3. State Committees

<u>Year</u>	<u>Organization</u>	<u>Position</u>
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4. National Committees

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2021	Methodology, Measurement, and Statistics Program, NATIONAL SCIENCE FOUNDATION	Reviewer

5. Professionally Relevant Community Involvement

<u>Year</u>	<u>Organization</u>	<u>Position</u>
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6. Professional Consulting

<u>Year</u>	<u>Organization</u>	<u>Position</u>
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7. Other

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2012	Promotion and Tenure Review Committee, School of Public Health, University of Minnesota	Member
2014		Reviewer, Grant Proposals
2014	Promotion and Tenure Review Committee, School of Public Health, Indiana University-Bloomington	Member
2014	Tenure Committee, School of Statistics and Management, Shanghai University of Finance and Economics	Member
2015		Reviewer, Grant Proposals
2015	Promotion and Tenure Review Committee, School of Public Health, University of Minnesota	Member
2015	Promotion and Tenure Review Committee, University of Notre Dame	Member
2016	Promotion and Tenure Review Committee, School of Public Health, Indiana University-Bloomington	Member
2017		Member

<u>Year</u>	<u>Organization</u>	<u>Position</u>
	Promotion and Tenure Review Committee, College of Medicine, University of Illinois at Chicago	
2017	Promotion and Tenure Review Committee, School of Public Health and Tropical Medicine, Tulane University	Member
2019	Grant Proposal, Linz Institute of Technology	Reviewer
2021	Grant Proposal, Linz Institute of Technology	Reviewer

C. Departmental, Collegiate or University Service

<u>Year</u>	<u>Organization</u>	<u>Position</u>
1999-2003	College of Public Health, University of Iowa, Instructional Development and Evaluation Committee	Member
2000-2001	College of Public Health, University of Iowa, Biostatistics Seminar Committee	Member
2000-2001	Department of Biostatistics, College of Public Health, University of Iowa, M.S. Core Exam Committee	Member
2001	Department of Biostatistics, College of Public Health, University of Iowa, Ph.D. Comprehensive Exam Committee	Member
2001	Department of Biostatistics, College of Public Health, University of Iowa, Statistical Genetics Faculty Search Committee	Member
2002-2003	Department of Biostatistics, College of Public Health, University of Iowa, Student Admissions Committee	Member
2003-2006	College of Public Health, University of Iowa, Curriculum Committee	Member

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2003-2004	Program in Public Health Genetics, College of Public Health, University of Iowa, Student Admissions Committee	Member
2004-2007	College of Public Health, University of Iowa, Curriculum Committee	Member
2004-2005	College of Public Health, University of Iowa, Faculty Council	Member
2004-2005	College of Public Health and Carver College of Medicine, University of Iowa, New Investigator Research Award Review Committee	Member
2004	Program in Public Health Genetics, College of Public Health, University of Iowa, Ph.D. Comprehensive Exam Committee	Member
2005-2007	College of Public Health, University of Iowa, Alumni Relations Council	Member
2005-2007	College of Public Health, University of Iowa, Awards Committee	Member
2005-2006	College of Public Health, University of Iowa, Awards Committee	Member
2007-2009	Department of Biostatistics, College of Public Health, University of Iowa, M.S. Exam Committee	Member
2007-2008	Department of Biostatistics, College of Public Health, University of Iowa, Biostatistics Seminar Committee	Member
2007-2008	Department of Biostatistics, College of Public Health, University of Iowa, Departmental Self-Study Committee	Member
2007-2008	Program in Public Health Genetics, College of Public Health, University of Iowa, Doctoral Comprehensive Examination Committee	Chair

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2007-2008	Department of Biostatistics, College of Public Health, University of Iowa, Faculty Search Committee	Member
2007-2008	Department of Biostatistics, College of Public Health, University of Iowa, Recruitment and Admissions Committee	Member
2008	Department of Biostatistics, College of Public Health, University of Iowa, Course Renumbering Committee	Member
2009-2012	Bioinformatics PhD Program, College of Public Health, University of Iowa, Admissions Committee	Member
2009-2011	Department of Biostatistics, College of Public Health, University of Iowa, M.S. Exam Committee, Spring Chair	Member
2009	College of Public Health, University of Iowa, Strategic Planning Initiative: Research Foci and Organization Subgroup	Member
2010-2013	College of Public Health, University of Iowa, Faculty Council	Member
2010-2011	Department of Biostatistics, College of Public Health, University of Iowa, Seminar Committee	Chair
2010	Health Sciences Research Week	Graduate Student Poster Judge
2011	Department of Biostatistics, College of Public Health, University of Iowa, Theory Course Committee	Member
2011-2015	Biostatistics Seminar Committee	Member
2012-2013	Clinical Trials Faculty Search Committee	Member
2012-2013	Genetics Cluster Hire Search Committee	Member

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2012	CPH Faculty Council Best Practices Task Force	Member
2013	Biostatistics Seminar Committee	Member
2013	M.S. Exam Committee	Member
2014-2019	College of Public Health, University of Iowa, CPH Faculty Council	Member
2014-2015	CPH Curriculum Innovations Committee: Academic subgroup	Member
2014	CPH Promotion and Tenure Committee	Member
2014	M.S. Exam Committee: Fall	Member
2014	Department of Biostatistics, Ph.D. Comprehensive Examination Committee: Fall	Member
2015-2017	CPH Faculty Council	Co-Chair
2015	Collegiate Consulting Group	Chair
2015	Post-Tenure Review Committee of Professor Michael P. Jones	Chair
2015	Post-Tenure Review Committee of Professor Shelly Campo	Member
2015	M.S. Core Exam Committee (January 2015)	Member
2015	M.S. Core Exam Committee (Summer 2015)	Member
2016-Present	M.S. Core Exam Committee (Winter) (Chair 2019-2021)	Member
2016-2019	CPH Promotion and Tenure Committee	Member
2016-2019	EHSRC Internal Advisory Committee	Member
2016-2017	DCG for Promotion to Full Professor (Dr. Brian Smith)	Member

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2016	Biostatistics Third-Year Review Committee for Professor Patrick Breheny	Member
2016	CCG for Promotion to Associate Professor (Dr. Kelli Rychman)	Member
2016	CCG for Promotion to Clinical Professor (Dr. Anne Helene Skinstad)	Member
2016	DCG for Tenure and Promotion to Associate Professor (Dr. Patrick Breheny)	Member
2017-Present	M.S. and Ph.D. Curriculum Committee	Member
2017-2022	CPH Faculty Council	Member
2017-2018	M.S. and Ph.D. Curriculum Committee	Member
2017-2018	Peer Review Committees for Promotion to Full Professor	Member
2017	CCG for Promotion to Associate Professor (Dr. Padmaja Ayyagari)	Member
2017	CCG for Promotion to Associate Professor (Dr. Xi Zhu)	Member
2017	CCG for Promotion to Full Professor (Dr. George Wehby)	Member
2017	CCG for Promotion to Full Professor (Dr. Hans Lehmler)	Member
2017	Peer Review Committees for Promotion to Full Professor	Member
2017	Biostatistics PhD Comprehensive Exam: Question-writer	
2018	M.S. Core Exam Committee (January 2018)	Member
2018	Post-Tenure Review Committee of Professor Paul Romitti	Member

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2020-2021	DCG for Promotion of Ryan Cho and Dan Sewell	Member
2020-2021	DCG for Tenure for Dr. Rima Affifi, CBH	Member
2020-Present	5-Year Post Tenure Review Committee for Dr. Jennifer Robinson	Member
2020-Present	M.S. Core Exam Committee (Summer)	Member
2021-2024	CPH Research Council	Faculty Representative
2021	Spotlight Series-Summary of Campus Climate Survey	Participant