CURRICULUM VITAE
Kathleen F. Kerr
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1. Biographical Information

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2. Education

Bryn Mawr College, Bryn Mawr, Pennsylvania, B.A., Mathematics, 1993
Budapest Semesters in Mathematics, Budapest, Hungary, 1991-1992
University of California, Los Angeles, M.A., Mathematics, 1995
University of California, Los Angeles, M.S., Statistics, 1998
University of California, Los Angeles, Ph.D., Statistics, 1999

3. Licensure: Not applicable

4. Professional Positions

Post-doctoral Associate, The Jackson Laboratory, 1999-2001
Fellow, Institute for Pure and Applied Mathematics, Program in Functional Genomics, Los
    Angeles, California, 2000
Assistant Professor, Department of Biostatistics, University of Washington, 2001-2007
Associate Professor, Department of Biostatistics, University of Washington, 2007-present

5. Honors, Awards and Fellowships

Scott Prize in Mathematics, Bryn Mawr College, 1993
B.A. conferred Magna Cum Laude and with Honors in Mathematics, Bryn Mawr College,
    1993
National Science Foundation Graduate Fellowship Honorable Mention, 1993
Harris Fellowship, UCLA Graduate Division, 1993-1996
Hoel Scholar, UCLA Division of Statistics, 1996
AIDS Training Fellowship, UCLA Biostatistics Department, 1997-1999
National Institutes of Health, National Human Genome Research Institute, Post-Doctoral
    Fellowship award, 2000 (awarded and declined)
Program in Mathematics and Molecular Biology, Burroughs Wellcome Post-Doctoral
    Fellow, 2000-2001

6. Professional Activities (outside of UW)

Organizer and Chair, WNAR Invited session "Statistics for Microarrays," Joint Statistical
    Meetings, San Francisco, California, August 3-7, 2003.
Byar Young Investigator Award Selection Committee, 2007, 2008, 2009.
Chair, WNAR student paper competition 2013.

Professional Societies: Member, American Statistical Association
Member, International Biometric Society

Associate Editor for:
Statistical Applications in Genetics and Molecular Biology 2005-present
Biometrics 2006-2008
PLoS Genetics 2006-2012

Reviewer for:
Kluewer Academic Publishers (2002)
National Science Foundation Reviewer Panel: Environmental Genomics (2002)
U.C. Davis M.I.N.D. Institute (2003)
National Institutes of Health, SSS-Y-92S Study Section (2003)
Springer Academic Publishers (2004)
Oxford University Press (2005)
Wiley Academic Press (2013, 2014)
National Institute of Environmental Health Sciences Review Committee (2011)
European Commission, Directorate-General for Research and Innovation (2012)
University of Washington Royalty Research fund (2012, 2013, 2014)
National Institutes of Health NHLBI (2013)
Cancer Research UK (2014)

Referee for: *Aging Cell (2008)*
American Journal of Epidemiology (2011)
Annals of Applied Statistics (2007)
Bioinformatics (2001, 2002 (2), 2003 (3), 2004(2), 2007(2), 2009(2), 2012)
Biometrics (2002 (3), 2005, 2009)
Biostatistics (2001, 2002, 2003, 2004 (2), 2005, 2006)
BioTechniques (2001, 2002 (2), 2003 (3))
BMC Bioinformatics (2005 (2), 2006, 2007, 2008(2), 2009, 2010, 2011)
BMC Cancer (2004)
BMC Genomics (2005, 2007, 2008(2), 2009(2))
BMC Microbiology (2008)
Cancer Epidemiology, Biomarkers, and Prevention (2009)
Circulation (2005)
Computational Statistics and Data Analysis (2007)
Genetic Epidemiology (2002)
Genetical Research (2006)
Genetics (2002, 2006, 2008)
Genome Biology (2002)
Gerontology (2003)
Journal of the American Statistical Association (2001, 2007)
Journal of Bioinformatics and Computational Biology (2005)
Journal of Biopharmaceutical Statistics (2002)
Journal of Biotechnology (2004)
Journal of Computational Biology (2002)
Journal of Computational and Graphical Statistics (2002)
Journal of Mathematical Biology (2002)
Journal of the Royal Statistical Society (2001, 2009)
Journal of Statistical Planning and Inference (2003 (2), 2009)
Lifetime Data Analysis (2012)
Medical Decision Making (2015)

Molecular Systems Biology (2005, 2006, 2007(2))
Nature (2001)
Nature Methods (2005)
Nucleic Acids Research (2001, 2003, 2004, 2005 (2), 2010)
Omics (2007, 2009)
Pharmacogenomics (2002)
PLoS Genetics (2006, 2007, 2008)
Proceedings of the National Academy of Sciences, USA (2002, 2003 (2))
Statistical Applications in Genetics and Molecular Biology (2003(2), 2005, 2007)
Statistical Papers (2007)
Statistics and Probability Letters (2009)
Statistics in Medicine (2001, 2003, 2009, 2011, 2014(2))
Technometrics (2008)

7. Bibliography

a) Refereed Research Articles

1. Johnson CR, **Kerr MK**, Stanford DP: Semi-positivity of matrices. *Journal of Linear and Multilinear Algebra* 37:265-271, 1994.

2. **Kerr MK**, Martin M, Churchill GA: Analysis of variance for gene expression microarray data. *Journal of Computational Biology* 7:819-837, 2000.

3. **Kerr MK**: Patents and statistical inventions. *Chance* 13:22-25, 2000.

4. **Kerr MK**, Churchill GA: Statistical design and the analysis of gene expression microarrays. *Genetical Research* 77:123-128, 2001.

5. **Kerr MK**, Churchill GA: Experimental design for gene expression microarrays. *Biostatistics* 2:183-201, 2001.

6. **Kerr MK**: Bayesian optimal fractional factorials. *Statistica Sinica* 11:605-630, 2001.

7. **Kerr MK**, Churchill GA: Bootstrapping cluster analysis: Assessing the reliability of conclusions from microarray experiments. *Proceedings of the National Academy of Sciences of the USA* 98:8961-8965, 2001.

8. **Kerr MK**, Afshari CA, Bennett L, Bushel P, Martinez J, Walker NJ, Churchill GA: Statistical analysis of a gene expression microarray experiment with replication. *Statistica Sinica* 12:203-218, 2002.

9. Cui X, **Kerr MK**, Churchill GA: Data Transformations for cDNA Microarray Data. *Statistical Applications in Genetics and Molecular Biology*. 2:Article 4, 2003.

10. **Kerr MK**: Design considerations for efficient and effective microarray studies, *Biometrics* 59:822-828, 2003.

11. **Kerr MK**: Linear models for microarray data analysis: Hidden similarities and differences, *Journal of Computational Biology* 10:891-901, 2003.

12.   **Kerr MK**: Stationary Gaussian processes on the vertices of the *k*-cube, *Journal of Statistical Planning and Inference* <u>118</u>:1-8, 2004.

13.   Mikheeva S, Barrier M, Little SA, Beyer R, Mikheev AM, **Kerr MK**, Mirkes PE: Alterations in gene expression induced in day-9 mouse embryos exposed to hyperthermia (HS) or 4-hydroperoxycyclophosphamide (4CP): analysis using cDNA microarrays. *Toxicological Sciences* <u>79</u>:345-359, 2004.

14.   Qin, L-X, **Kerr KF**[1], Contributing Members of the Toxicogenomics Research Consortium: Empirical evaluation of data transformations and ranking statistics for microarray analysis. *Nucleic Acids Research* <u>32</u>:5471-5479, 2004.

15.   Contributing Members of The Toxicogenomics Research Consortium**:** Standardizing Gene Expression between Laboratories and across Platforms. *Nature Methods*, <u>2</u>:351-356, 2005.

16.   Qin, L-X, Beyer, RP, Hudson, FN, Linford, NJ, Morris, DE, **Kerr KF**[2]: Evaluation of Methods for Affymetrix Array Data via Quantitative Real-Time PCR. *BMC Bioinformatics* <u>7</u>:23, 2006.

17.   Ditt, RF, **Kerr, KF**, de Figueiredo P, Delrow J, Comai L, Nester, EU: The Arabidopsis thaliana transcriptome in response to Agrobacterium tumefaciens. *Molecular Plant-Microbe Interactions*<u>19</u>:665-681, 2006*.*

18.   **Kerr KF**: 2^k Factorials in Blocks of Size 2, with Application to Two-Color Microarray Experiments. *Journal of Quality Technology* <u>38</u>:349-364, 2006.

19.   Beyer RP, Fry RC, Lasarev MR, McConnachie LA, Meira LB, Palmer VS, Powell CL, Ross PK, Bammler TK, Bradford BU, Cranson AB, Cunningham ML, Fannin RD, Higgins GM, Hurban P, Kayton RJ, **Kerr KF**, Kosyk O, Lobenhofer EK, Sieber SO, Vliet PA, Weis BK, Wolfinger R, Woods CG, Freedman JH, Linney E, Kaufmann WK, Kavanagh TJ, Paules RS, Rusyn I, Samson LD, Spencer PS, Suk W, Tennant RJ, Zarbl H; Members of the Toxicogenomics Research Consortium: Multi-Center Study of Acetaminophen Hepatotoxicity Reveals the Importance of Biological Endpoints in Genomic Analyses. *Toxicological Sciences* <u>99</u>:326-337, 2007. PMID 1756273.

20.   Yuan Z-C, Edlind MP, Liu P, Saenkham P, Banta LM, Wise AA, Ronzone E, Binns AN, **Kerr K**, Nester EW: The plant signal salicylic acid shuts down expression of the *vir* regulon and activates quormone-quenching gene in *Agrobacterium*. *Proceedings of the National Academy of Sciences of the USA* <u>104</u>:11790-11795, 2007. PMID 17606909/ PMC1905925.

21.   **Kerr KF**, Serikawa K, Wei C, Peters MA, Bumgarner RE: What makes the best reference RNA? And other questions regarding the design and low-level analysis of two-color microarray experiments. *Omics: A Journal of Integrative Biology* <u>11</u>: 152-165, 2007. PMID 17594235.

22.   **Kerr KF**: Extended analysis of benchmark datasets for Agilent two-color microarrays. *BMC Bioinformatics* <u>8</u>:371, 2007.   PMID 17915030/PMC2174956

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[1] Joint First Author (two first authors)
[2] Senior Author

23. Yuan Z-C, Liu P, Saenkham P, **Kerr K**, Nester EW: Transcriptome profiling and functional analysis of *Agrobacterium tumefaciens* reveals a general conserved response to acidic conditions (pH5.5) and a complex acid-mediated signaling involved in *Agrobacterium*-plant interactions. *Journal of Bacteriology* <u>190</u>: 494-507, 2007. PMID 17993523/PMC2223696.

24. Yuan Z-C, Haudecoeur E, Faure D, **Kerr KF**, Nester EW: Comparative transcriptome analysis of *Agrobacterium tumefaciens* in response to plant signals salicylic acid, indole-3-acetic acid, and γ-amino butyric acid reveals signaling crosstalk and *Agrobacterium*-plant co-evolution. *Cellular Microbiology* <u>10</u>: 2339–2354, 2008. PMID 18671824

25. **Kerr KF**, Comments on the Analysis of Unbalanced Microarray Data. *Bioinformatics*, <u>25</u>: 2035-2041, 2009. PMID 19528084/PMC2732368.

26. Marcus GM, Alonso A, Peralta CA, Lettre G, Vittinghoff E, Lubitz SA, Fox ER, Levitzky YS, Mehra R, **Kerr KF**, Deo R, Sotoodehnia N, Akylbekova M, Ellinor PT, Paltoo DN, Soliman EZ, Benjamin EJ, Heckbert SR, for the CARe Study. European Ancestry as a Risk Factor for Atrial Fibrillation in African Americans. *Circulation* <u>122:</u>2009-2015, 2010. PMID 21098467/PMC3058884.

27. Smith JG, Magnani, JW, Palmer C, Meng YA, Soliman EZ, Musani SK, **Kerr KF**, Schnabel RB, Lubitz SA, Sotoodehnia N, Redline S, Pfeufer A, Müller M, Evans DS, Nalls MA, Liu Y Newman AB, Zonderman AB, Evans MK Deo R, Ellinor PT, Paaltoo DN, Newton-Cheh C, Benjamin EJ, Mehra R, Alonso A, Heckbert SR, Fox ER for the Candidate-gene Association Resource (CARe) Consortium. Genome-wide association studies of the PR interval in African Americans. *PLoS Genetics* <u>7</u>: e1001304, 2011. PMID 21347284/PMC3037415

28. Engrav LH, Tuggle CK, **Kerr KF**, Zhu KQ, Numhom S Couture OP, Beyer RP, Hocking AM, Carrougher GJ, Ramos MLC, Klein MB, Gibran NS. Functional Genomics Unique to Week 20 Post Wounding in the Deep Cone/Fat Dome of the Duroc/Yorkshire Porcine Model of Fibroproliferative Scarring. *PLoS One* <u>6</u>:e19024, 2011. PMID 21533106/ PMC3080398.

29. **Kerr KF**, McClelland RL, Brown ER, Lumley T. Evaluating the Incremental Value of New Biomarkers with Integrated Discrimination Improvement. *American Journal of Epidmiology*, doi:10.1093/aje/kwr086, 2011. PMID 21673124/PMC3202159.

30. Schnabel RB, **Kerr KF**[3], Lubitz SA, Alkylbekova EL, Marcus GM, Sinner MF, Magnani, JW, Wolf PA, Deo R, Lloyd-Jones DM, Lunetta KL, Mehra R, Levy D, Fox ER, Arking DE, Mosley TH, Mueller M, Young T, Wichmann E, Seshadri S, Farlow DN, Rotter JI, Soliman EZ, Glazer NL, Wilson JG, Breteler MMB, Sotoodehnia N, Newton-Cheh C, Kääb S, Ellinor PT, Alonso A, Benjamin EJ, Heckbert SR. Large-Scale Candidate Gene Analysis in Whites and African-Americans Identifies IL6R Polymorphism in Relation to Atrial Fibrillation: the NHLBI CARe Project. *Circulation Cardiovascular Genetics*, 4:557-564, 2011. PMID 21846873/ PMC3224824.

31. **Kerr KF**, Pepe MS. Joint Modeling, Covariate Adjustment, and Interaction: Contrasting Notions in Risk Prediction Models and Risk Prediction Performance. *Epidemiology* 22(6):805-812, 2011. (Published with Invited Commentary) PMID 21968770/PMC3660038.

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[3] Joint First Author (four first authors)

32.   **Kerr KF**. Optimality Criteria for the Design of 2-Color Microarray Studies. *Statistical Applications in Genetics and Molecular Biology, 2012.* 11(1):1-9, 2012. PMID 22499679/PMC3979428.

33.   Manichaikul A, Palmas W, Rodriguez CJ, Peralta CA, Divers J, Guo X, Chen W-M, Wong Q, Williams K, **Kerr KF**, Taylor KD, Tsai MY, Post W, Goodarzi MO, Sale MM, Diez-Roux AV, Rich SS, Rotter JI, Mychaleckyj JC. Population structure of Hispanics in the United States: the Multi-Ethnic Study of Atherosclerosis *PLoS Genetics* 8(4): e1002640, 2012. PMID:22511882./ PMC3325201

34.   **Kerr KF**, Bansal A, Pepe MS. Further Insight into the Incremental Value of New Markers: The Interpretation of Performance Measures and the Importance of Clinical Context. *American Journal of Epidemiology* doi: 10.1093/aje/kws210, 2012. PMID 22875756/ PMC3530353.

35.   Engrav LH, Heimbach DM, Rivara FP, **Kerr KF**, Osler T, Pham TN, Sharar SR, Esselman PC, Bulger EM, Carrougher GJ, Honari S, Gibran N. Harborview Burns – 1974 to 2009. *PLoS One*, 7(7): e40086, 2012. PMID 22792216.

36.   Hansen E[4], **Kerr KF**. A Comparison of Two Classes of Methods for Estimating False Discovery Rates in Microarray Studies. *Scientifica*, vol 2012, Article ID 519394, doi: 10.6064/2012/519394, 2012. PMID 24278709/ PMC3820438.

37.   Smith JG, Avery CL, Evans DS, Nalls MA, Meng YA, Smith EN, Palmer C, Tanaka T, Mehra R, Butler AM, Young T, Buxbaum SG, **Kerr KF**, Berenson GS, Schnabel RB, Li G, Ellinor PT, Magnani JW, Chen W, Bis JC, Curb JD, Hsueh W-C, Rotter JI, Liu Y, Newman AB, Limacher MC, North KE, Reiner AP, Quibrera M, Schork NJ, Singleton AB, Psaty BM, Soliman EZ, Solomon AJ, Srinivasan SR, Alonso A, Wallace R, Redline S, Zhang Z-M, Post WS, Zonderman AB, Taylor HA, Murray SS, Ferrucci L, Arking D, Evans MK, Fox ER, Sotoodehnia N, Heckbert SR, Whitsel EA, Newton-Cheh C for the CARe and COGENT consortia. The impact of ancestry and common genetic variants on QT interval in African Americans. *Circulation Cardiovascular Genetics*, 5:647-655, 2012. PMID 23166209/PMC3568265.

38.   Butler AM, Yin X, Evans DS, Nalls MA, Smith EN, Tanaka T, Li G, Buxbaum SG, Whitsel, EA, Alonso A, Arking DE, Benjamin EJ, Berenson GS, Bis JC, Chen W, Deo R, Ellinor PT, Heckbert SR, Heiss G, Hsueh W-C, Keating BJ, **Kerr KF**, Li Y, Limacher MC, Liu Y, Lubitz SA, Marciante KD, Mehra R, Meng YA, Newman AB, Newton-Cheh C, North KE, Palmer CD, Psaty BM, Quibrera PM, Redline S, Reiner AP, Rotter JI, Schnabel RB, Schork, NJ, Singleton AB, Smith JG, Soliman EZ, Srinivasan SR, Zhang Z, Zonderman AB, Ferrucci L, Murray SS, Evans MK, Sotoodehnia N, Magnani JW, Avery CL. Novel Loci Associated with PR Interval In a Genome-wide Association Study of Ten African American Populations. *Circulation: Cardiovascular Genetics,* 5:639-646, 2013. PMID 23139255/ PMC3560365.

39.   Thanassoulis G, Campbell CY, Owens DS, Smith JG, Smith AV, Peloso GM, **Kerr KF**, Pechlivanis S, Budoff MJ, Harris TB, Malhotra R, O'Brien KD, Allison MA, Aspelund T, Carr J, Criqui MH, Heckbert SR, Hwang S-J, Kathiresan S, Liu Y, Sjogren M, Van Der Pals J, Kälsch S, Cupples LA, Caslake M, Di Angelantonio E, Danesh J, Rotter JI, Sigurdsson S, Wong Q, Erbel R, Melander O, Gudnason V, O'Donnell CJ, Post WS for the CHARGE Extracoronary Calcium Working Group. Genetic Associations with Valvular

[4] Research conducted by Ms. Hansen for her MS Thesis under Dr. Kerr's supervision

Calcification and Aortic Stenosis. *New England Journal of Medicine* 368:503-512, 2013. PMID 23388002/PMC3766627.

40.   Divers J, Palmer ND, Lui L, Register TC, Carr JJ, Hicks PJ, Hightower RC, Smith SC, Xu J, Cox AJ, Hruska KA, Bowden DW, Smith SC, Lewis CE, Heiss G, Province MA, Borecki IB, **Kerr KF**, Chen Y-D I, Palmas W, Rotter J, Wassel CL, Bertoni A, Herrington D, Wagenkenct LE, Langefeld CD, Freedman BI. Admixture mapping of coronary artery calcified plaque in African-Americans with type 2 diabetes. *Circulation: Cardiovascular Genetics*, 6:97-105, 2013. PMID 23233742/PMC3578054.

41.   Deo R, Nalls MA, Avery CL, Smith JG, Evans DS, Keller MF, Butler AM, Buxbaum SG, Li PG, Quibrera PM, Smith EN, Tanaka T, Akylbekova EL, Alonso A, Arking DE, Benjamin EJ, Berenson GS, Bis JC, Chen LY, Chen W, Cummings SR, Ellinor PT, Evans MK, Ferrucci L, Fox ER, Heckbert SR, Heiss G, Hsueh W, **Kerr KF**, Limacher M, Liu Y, Lubitz SA, Magnani JW, Mehra R, Marcus GM, Murray SS, Newman AB, Njajou O, North KE, Paltoo DN, Psaty BM, Redline SS, Reiner AP, Robinson JG, Rotter JI, Samdarshi TE, Schnabel RB, Schork NJ, Singleton AB, Siscovick D, Soliman EZ, Sotoodehnia N, Srinivasan SR, Taylor HA, Trevisan M, Zhang Z, Zonderman AB, Newton-Cheh C, Whitsel EA. Common genetic variation near the Connexin-43 gene is Associated with Heart Rate in African Americans: A Genome-wide Association Study of 13,372 Participants. *Heart Rhythm* 10:401-408, 2013. PMID 23183192/PMC3718037.

42.   Seymour CW, Cooke CR, Wang Z, **Kerr KF**, Yealy DM, Angus DC, Rea TD, Kahn JM, Pepe MS. Improving risk classification of critical illness with biomarkers: A simulation study. *Journal of Critical Care*, 28:541-548, 2013. PMID 23566734/PMC3707977.

43.   Pepe MS, **Kerr KF**, Longton G, Wang Z. Testing for improvement in prediction model performance. *Statistics in Medicine* 32: 1467–1482, 2013. PMID 23296397/ PMC3625503.

44.   Hall TA, Wan JY, Mata IF, **Kerr KF**, Snapinn KW, Samii A, Roberts JW, Agarwal P, Zabetian CP, Edwards KL: Risk Prediction for Complex Diseases: Application to Parkinson's disease. *Genetics in Medicine* 15:361-367, 2013. PMID 23222663/ PMC3687522.

45.   den Hoed M, Eijgelsheim M, Esko T, Brundel B, Peal DS, Evans DM, Nolte IM, Segrè AV, Holm H, Handsaker RE, Westra H-J, Johnson T, Isaacs A, Yang J, Lundby A, Kim YJ, Go MJ, Almgren P, Bochud M, Boucher G, Cornelis MC, Gudbjartsson D, Hadley D, van der Harst P, Hayward C, den Heijer M, Igl W, Jackson AU, Kutalik Z, Luan J, Kemp JP, Kristiansson K, Ladenval C, Lorentzon M, Montasser ME, Njajou OT, O'Reilly PF, Padmanabhan S, St Pourcain B, Rankinen T, Salo P, Tanaka T, Timpson NJ, Vitart V, Waite L, Wheeler W, Zhao JH, Zhang W, Draisma HHM, Feitosa MF, **Kerr KF**, et al, Identification of heart rate-associated loci and their effects on cardiac conduction and rhythm disorders. *Nature Genetics* 45:621-631, 2013. PMID 23583979/PMC3696959.

46.   Wojczynski MK, Li M, Bielak LF, **Kerr KF**, Reiner AP, Wong ND, Yanek LR, Qu L, White CC, Lange LA, Ferguson JF, He J, Young T, Mosley TH, Smith JA, Kral BG, Guo X, Wong Q, Ganesh SK, Heckbert SR, Griswold ME, O'Leary DH, Budoff M, Carr JJ, Taylor Jr HA, Bluemke DA, Demissie S, Hwang S-J, Paltoo DN, Polak JF, Psaty BM, Becker DM, Province MA, Post WS, O'Donnell CJ, Wilson JG, Harris TB, Kavousi M, Cupples LA, Rotter JI, Fornage M, *Becker* LC, Peyser PA, Borecki IB, Reilly MP. Genetics of

Coronary Artery Calcification among African Americans, a Meta-Analysis. *BMC Genomics* 14:75, 2013. PMID 23870195/PMC3733595.

47. Demerath EW, Liu C-T, Franceschini N, Chen G, Palmer JR, Smith EN, Chen CTL, Ambrosone CB, Arnold AM, Bandera EV, Berenson GS, Bernstein L, Britton A, Cappola AR, Carlson CS, Chanock SJ, Chen W, Chen Z, Deming DL, Elks CE, Evans MK, Gajdos Z, Henderson BE, Hu JJ, Ingles S, John EM, **Kerr KF**, Kolonel LN, Marchand LL, Lu X, Millikan RC, Musani SK, Nock NL, North K, Nyante S, Press MF, Rodriquez-Gil JL, Ruiz-Narvaez EA, Schork NJ, Srinivasan SR, Woods NF, Zheng W, Ziegler RG, Zonderman A, Heiss G, Windham BG, Wellons M, Murray SS, Nalls M, Rajkovic A, Hirschhorn J, Cupples LA, Kooperberg C, Murabito JM, Haiman CA. Genome-wide association study of age at menarche in African-American women. Human Molecular Genetics 22:3329-3346, 2013. PMID 23599027/PMC3723312

48. **Kerr KF**, Wang Z, Janes H, McClelland R, Psaty B, Pepe M. Net Reclassification Indices for Evaluating Risk Prediction Instruments: A Critical Review. *Epidemiology*, 25:114-21, 2014. (Published with Invited Commentary.) PMID 24240655/PMC3918180

49. Chen CTL, Liu C-T, Chen GK, Andrews JS, Arnold AM, Dreyfus J, Franceschini N, Garcia ME, **Kerr KF**, Li Gu, Lohman KK, Musani SK, Nalls MA, Raffel LJ, Smith J, Ambrosone CB, Bandera EV, Bernstein L, Britton A, Brzyski RG, Cappola A, Carlson CS, Couper D, Deming SL, Goodarzi MO, Heiss G, John EM, Lu X, Le Marchand L, Marciante K, McKnight B, Millikan R, Nock NL, Olshan AF, Press MF, Vaiyda D, Woods NF, Taylor HA, Zhao W, Zheng W, Evans MK, Harris TB, Henderson BE, Kardia SLR, Kooperberg C, Liu Y, Mosley TH, Psaty B, Wellons M, Windham BG, Zonderman AB, Cupples LA, Demerath EW, Haiman C, Murabito JM, Rajkovic A. Meta-Analysis of Loci Associated with Age at Natural Menopause in African-American Women. *Human Molecular Genetics*,23:3327-42. 2014. PMID 2443794/PMC4030781

50. **Kerr KF**, Meisner A, Thiessen-Philbrook H, Coca SG, Parikh CR. Developing Risk Prediction Models for Kidney Injury and Assessing Incremental Value for Novel Biomarkers. *Clinical Journal of the American Society of Nephrology*, 2014. PMID 24855282/ PMC4123400

51. Smith JG, Luk K, Schulz C-A, Engert JC, Do R, Hindy G, Rukh G, Dufresne L, Almgren P, Owens DS, Harris TB, Peloso GM, **Kerr KF**, Wong Q, Smith AV, Rotter JI, Cupples A, Rich S, Kathiresan S, Orho-Melander M, Gudnason V, O'Donnell CJ, Post WS, Thanassoulis G. Association of Low-Density Lipoprotein Cholesterol–Related Genetic Variants With Aortic Valve Calcium and Incident Aortic Stenosis. *Journal of the American Medical Association*, 2014. PMID 25065297/ PMC4280258.

52. Ilkhanoff L, Arking DE, Lemaitre, RN, Alonso A. Chen LY, Durda P, Hesselson SE, **Kerr KF**, Magnani JW, Marcus GM, Schnabel RB, Smith JG, Soliman EZ, Reiner AP, Sotoodehnia N. A Common SCN5A Variant is Associated with PR interval and Atrial Fibrillation among African Americans. *Journal of Cardiovascular Electrophysiology*, 2014. PMID 25065297

53. **Kerr KF**, Meisner A, Thiessen-Philbrook H, Coca SG, Parikh CR. RiGoR: Reporting Guidelines to Address Common Sources of Bias in Risk Model Development *Biomarker Research*, 2015. PMID 25642328/ PMC4312434

b) Other Refereed Scholarly Publications (proceedings, policy papers and reviews, book chapters)

1. **Kerr MK**, Leiter EH, Picard L, Churchill GA: Analysis of a designed microarray experiment. Proceedings of the IEEE-EURASIP Nonlinear Signal and Image Processing Workshop, June 3-6, 2001.

2. External RNA Controls Consortium: The External RNA Controls Consortium: a progress report. *Nature Methods,* 2:731-734, 2005. PMID: 16179916

3. External RNA Controls Consortium: Proposed methods for testing and selecting the ERCC external RNA controls. *BMC Genomics* 6:150, 2005. PMID 16266432

c) Books and Book Chapters

1. **Kerr MK**, Leiter EH, Picard L, Churchill GA: Sources of variation in microarray experiments. "Computational and Statistical Approaches to Genetics," Wei Zhang and Ilya Shmulevich, eds. Kluwer Publishers, 2002.

2. **Kerr MK:** Experimental design to make the most of microarray studies. "Functional Genomics," MJ Brownstein and AB Khodursky, eds. Series in Methods in Molecular Biology, Humana Press, 2003.

3. Wu H, **Kerr MK**, Cui X, Churchill GA: MAANOVA: A software package for the analysis of spotted cDNA microarray experiments. "The Analysis of Gene Expression Data," Giovanni Parmigiani, Elizabeth S. Garrett, Rafael A. Irizarry, and Scott Zeger, eds. Springer-Verlag, 2003.

4. **Kerr KF**: Principles of Design for Microarray Experiments. "Fundamentals of Data Mining in Genomics and Proteomics," Werner Dubitsky, Martin Granzow, and Daniel Berrar, eds. Springer-Verlag, 2006.

5. van Belle G and **Kerr KF**: Design and Analysis of Experiments in the Health Sciences. Wiley, 2012.

d) Other Non-refereed Published Scholarly Publications

1. Kerr MK: A guide to design issues for microarrays. "Statistical analysis of microarrays," Inserm Proceedings (Institut national de la santé et de la recherche médicale), May 26-27, 2003

2. Kerr MK: Review of "Design and Analysis of Experiments, Volume 2: Advanced Experimental Design," Klaus Hinklemann and Oscar Kempthorne. Journal of the American Statistical Association. June 2006.

3. Meisner A, **Kerr KF**: Review of 'Evaluation of screening tests for detecting Clamydia trachomatis – Bias associated with the patient-infected-status-algorithm.' World Health Organization STI Diagnostics Publications Review (stidiagnostics.org), Issue 40, 2013.

8. Conferences and Symposiums

Invited Presentations

International Biometric Society ENAR, Chicago, Illinois, March 20, 2000
Agilent Technologies, Palo Alto, California, June 27, 2000
Joint Statistical Meetings, Indianapolis, Indiana, August 17, 2000
Purdue University, Bioinformatics and Statistical Genomics Seminar Series, West Lafayette, Indiana, October 3, 2000
Institute for Pure and Applied Mathematics, Conference on Expression Arrays, Genetic Networks, and Disease, Los Angeles, California, November 11, 2000, Conference on Mathematical and Statistical Challenges from Computational Biology, Lake Arrowhead, California, December 11, 2000
University of Southern Maine, Department of Mathematics and Statistics, Portland, Maine, February 8, 2001
Keck Graduate Institute, Claremont, California, February 15, 2001, March 30, 2001
The Genomics Institute of the Novartis Research Foundation, February 22, 2001
Department of Biostatistics, University of Michigan, February 27, 2001
Department of Statistics, The Ohio State University, March 1, 2001
Department of Biostatistics, Harvard University, February 14, 2001
Harvard School of Public Health, Boston, Massachusetts, May 12, 2001
Department of Biostatistics, University of North Carolina, March 20, 2001
The Jackson Laboratory, Short Course on Gene Microarray Development and Analysis, Bar Harbor, Maine, May 18, 2001
IEEE-EURASIP Workshop on Nonlinear Signal and Image Processing, Special Invited Session on Signal Processing in Biocomputing, Baltimore, Maryland, June 5, 2001
IMS/AMS/SIAM Conference on Statistics and Functional Genomics, South Hadley, Massachusetts, June 14, 2001
The Institute for Genomic Research (TIGR), Rockville, Maryland, July 18, 2001
The Jackson Laboratory, Short Course on Mathematical Approaches to the Analysis of Complex Phenotypes, Bar Harbor, Maine, October 6, 2001.
Nathan Shock Bioinformatics Workshop, Rochester, New York, October 20, 2001
University of Washington, Computational Biology Seminar Series, November 7, 2001
American Society for Quality and American Statistical Association Deming Conference on Applied Statistics, Short Course, Atlantic City, New Jersey, December 13, 2001.
University of Washington, Workshop in Statistical Genetics and Computational Molecular Biology, Seattle, Washington, December 18, 2001
The Program in Mathematics and Molecular Biology, Mathematics and Molecular Biology VII: Modeling Across the Scales: Atoms to Organisms. Santa Fe, New Mexico, January 5-10, 2002
Karolinska Institutet, Stockholm, Sweden, February 21, 2002
International Biometric Society ENAR, Washington, D.C., March 20, 2002
Institute for Pure and Applied Mathematics, Reunion Conference on Functional Genomics, Los Angeles, CA, June 16, 2002.
Design and Analysis of Experiments 1, Vancouver, British Columbia, July 16, 2002
Pittsburgh Supercomputing Center, Short Course on Nucleic Acid and Protein Sequence Analysis, August 13-15, 2003.
Association of General Clinical Research Centers, New York, New York, August 11, 2002
Joint Statistical Meetings, New York, New York, August 13, 2002
The Jackson Laboratory, Short Course on Mathematical Approaches to the Analysis of Complex Phenotypes, Bar Harbor, Maine, September 23, 2002.

University of Alabama, Birmingham, Short Course on Statistical Genetics, February 8, 2003

Gordon Conference on Quantitative Genomics, Ventura, California, February 12, 2003

International Symposium on Animal Functional Genomics, East Lansing, Michigan, May 4, 2003.

French National Institute of Health and Medical Research (INSERM), Workshop on the Statistical Analysis of Microarrays, Toulon, France, May 26, 2002.

Joint Statistical Meetings, San Francisco, California, August 5, 2003.

Pittsburgh Supercomputing Center, Short Course on Nucleic Acid and Protein Sequence Analysis, August 13-15, 2003.

National Academy of Sciences Committee on Emerging Issues and Data on Environmental Contaminants, Seattle, Washington, September 16, 2003.

University of Washington, Workshop in Statistical Genetics and Computational Molecular Biology, Seattle, Washington, September 21, 2003

Institute for Mathematics and Its Applications, Statistical Methods for Gene Expression: Microarrays and Proteomics, Minneapolis, Minnesota, September 30, 2003.

University of Idaho, Bioinformatics Seminar, Moscow, Idaho, November 7, 2003.

Mathematical Biosciences Institute, The Ohio State University, Analysis of Gene Expression Data: Principles and Applications, Columbus, Ohio, October 11, 2004.

Albert Einstein College of Medicine, New York, New York, May 19, 2005.

University of Washington Environmental Health Sciences Research Day, Seattle, Washington, May 8, 2006.

Joint Statistical Meetings, Seattle, Washington, August 6, 2006.

Isaac Newton Institute for Mathematical Sciences, Cambridge, UK, Programme on Designed Experiments: Recent Advances in Methods and Applications, August 12, 2008.

University of California, Los Angeles, Department of Statistics Tenth Anniversary Celebration, October 18, 2008.

Bryn Mawr College, July 1, 2009.

University of Washington, Department of Biostatistics, October 7, 2010.

Dutch Royal Academy of Arts and Sciences, Amsterdam,Netherlands, April 28, 2011.

Jackson Heart Study Writers Lab, via teleconference, May 7, 2012

MultiEthnic Study of Atherosclerosis, Steering Committee Meeting, Seattle, WA, April 26, 2013

International Biometrics Society WNAR, Los Angeles, CA, June 18, 2013

Yale University, Department of Biostatistics, New Haven, CT, February 4, 2014.

University of California, San Francisco, Department of Epidemiology and Biostatistics, San Francisco, CA, March 14, 2014.

National Institute of Diabetes and Digestive and Kidney Diseases, "Building Better Biomarkers Statistical Methodology" Workshop, December 2, 2014