

CURRICULUM VITAE

Michael Boehnke

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PERSONAL INFORMATION

Born: May 16, 1956, Eugene, Oregon
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EDUCATION

B.A. Honors College in Mathematics with Distinction, University of Oregon, 1977
Coursework in Mathematics and Biology, Albert-Ludwigs-Universität,
Freiburg, West Germany, 1977-1978
Ph.D. in Biomathematics, University of California, Los Angeles, 1983
Dissertation: "Advances in Pedigree Analysis: Ascertainment, Goodness of Fit, and
Optimization." Advisor: Kenneth Lange.

PROFESSIONAL EXPERIENCE

Research Associate, Cedars-Sinai Medical Center, 1979-1980
Teaching Assistant, Department of Biology, UCLA, 1979-1981
Research Assistant, Department of Biomathematics, UCLA, 1980-1983
Assistant Professor, Department of Biostatistics, University of Michigan, 1984-1989
Associate Professor, Department of Biostatistics, University of Michigan, 1989-1993
Professor, Department of Biostatistics, University of Michigan, 1993-present
Director, University of Michigan Genome Science Training Program, 1995-present
Director, University of Michigan Center for Statistical Genetics, 1999-present

HONORS

Phi Beta Kappa, 1976

DeCou Prize Winner as Outstanding Mathematics Undergraduate at the University of Oregon, 1977

Fulbright Scholar in Freiburg, West Germany, 1977-1978

National Institutes of Health Pre-Doctoral Trainee, 1978-1983

Snedecor Award for Outstanding Statistical Applications Paper, American Statistical Association, 1993, joint with Kenneth Lange

Myrto Lefkopoulou Distinguished Lecturer, Harvard University School of Public Health, 1994

University of Michigan School of Public Health Excellence in Research Award, 1999

Pharmacia Research Professor of Biostatistics, 1999 - 2005

Bernard Greenberg Lecturer, Department of Biostatistics, University of North Carolina School of Public Health, 2002

Fellow, American Statistical Association, 2002

Richard G. Cornell Collegiate Professor of Biostatistics, 2005 - present

PROFESSIONAL ORGANIZATIONS

American Association for the Advancement of Science

American Society of Human Genetics

American Statistical Association

International Genetic Epidemiology Society

PUBLICATIONS

a) Publications which have received peer review

1. **Boehnke M**, Guzman M, Hehmann R, Leibold W, and Gatti RA (1980) HLA-D typing with lymphoblastoid cell lines. VIII. Cut points and gene frequency estimates by multiple testing analysis. *Tissue Antigens* 16:161-168.
2. Lange K, **Boehnke M**, and Carson R (1981) Moment computations for subcritical branching processes. *Journal of Applied Probability* 18:52-64.
3. Lange K and **Boehnke M** (1982) How many polymorphic genes will it take to span the human genome? *American Journal of Human Genetics* 34:842-845.
4. Lange K and **Boehnke M** (1983) Extensions to pedigree analysis. IV. Covariance components models for multivariate traits. *American Journal of Medical Genetics* 14:513-524.

5. Lange K and **Boehnke M** (1983) Some combinatorial problems of DNA restriction fragment length polymorphisms. *American Journal of Human Genetics* 35:177-192.
6. **Boehnke M**, Conneally PM, and Lange K (1983) Two models for a maternal factor in the inheritance of Huntington disease. *American Journal of Human Genetics* 35:845-860.
7. Lange K and **Boehnke M** (1983) Extensions to pedigree analysis. V. Optimal calculation of Mendelian likelihoods. *Human Heredity* 33:291-301.
8. **Boehnke M** and Greenberg DA (1984) The effects of conditioning on probands to correct for multiple ascertainment. *American Journal of Human Genetics* 36:1298-1308.
9. **Boehnke M** and Lange K (1984) Ascertainment and goodness of fit of variance component models for pedigree data. *Progress in Clinical and Biological Research* 147:173-192.
10. Gatti RA, **Boehnke M**, Crist M, and Sparkes RS (1985) Genetic linkage studies in ataxia-telangiectasia: Gm markers. *Kroc Foundation Series* 19:163-172.
11. **Boehnke M**, Moll PP, Lange K, Weidman WH, and Kottke BA (1986) Univariate and bivariate analyses of cholesterol and triglyceride levels in pedigrees. *American Journal of Medical Genetics* 23:775-792.
12. Hodge SE and **Boehnke M** (1986) A note on Cannings and Thompson's sequential sampling scheme for pedigrees. *American Journal of Human Genetics* 39:274-281.
13. **Boehnke M** (1986) Estimating the power of a proposed linkage study: a practical computer simulation approach. *American Journal of Human Genetics* 39:513-527.
14. **Boehnke M**, Moll P, Kottke B, and Weidman W (1987) Partitioning the variability of fasting plasma glucose levels in pedigrees. Genetic and environmental factors. *American Journal of Epidemiology* 125:679-689.
15. Bird TD, **Boehnke M**, Schellenberg GD, Deeb SS, and Lipe HP (1987) The use of apolipoprotein CII as a genetic marker for myotonic dystrophy. *Archives of Neurology* 44:273-275.
16. Schellenberg GD, Deeb SS, **Boehnke M**, Bryant EM, Martin GM, Lampe TH, and Bird TD (1987) Association of an apolipoprotein CII allele with familial dementia of the Alzheimer type. *Journal of Neurogenetics* 4:97-108.
17. Diehl SR, **Boehnke M**, Collins FS, Erickson RP, Karolyi IJ, Ploughman LM, Pericak-Vance MA, Aylsworth AS, and Roses AD (1987) Linkage analysis of peripheral neurofibromatosis to DNA markers on chromosome 8. *Journal of Medical Genetics* 24:532-534.
18. Bird TD, **Boehnke M**, Anderson J, Lampe TH, Schellenberg GD, and Larson EB (1987) The frequency of C4B variants of complement in familial and sporadic Alzheimer disease. *Alzheimer Disease and Associated Disorders* 1:251-255.
19. Diehl SR, **Boehnke M**, Erickson RP, Baxter AB, Bruce MA, Lieberman JL, Platt DJ, Ploughman LM, Seiler KA, Sweet AM, and Collins FS (1987) Linkage analysis of von Recklinghausen neurofibromatosis to DNA markers on chromosome 17. *Genomics* 1:361-363.

20. Hanash SM, **Boehnke M**, Chu EH, Neel JV, and Kuick RD (1988) Non-random distribution of structural mutants in ethylnitrosourea-treated cultured human lymphoblastoid cells. *Proceedings of the National Academy of Sciences USA* 85:165-169.
21. Chu EH, **Boehnke M**, Hanash SM, Kuick RD, Lamb BJ, Neel JV, Niezgodka W, Pivrotto S, and Sundling G (1988) Estimation of mutation rates based on the analysis of polypeptide constituents of cultured human lymphoblastoid cells. *Genetics* 119:693-703.
22. Schwartz AG, **Boehnke M**, and Moll PP (1988) Family risk index as a measure of familial heterogeneity of cancer risk. A population-based study in metropolitan Detroit. *American Journal of Epidemiology* 128:524-535.
23. **Boehnke M**, Young MR, and Moll PP (1988) Comparison of sequential and fixed-structure sampling of pedigrees in complex segregation analysis of a quantitative trait. *American Journal of Human Genetics* 43:336-343.
24. Schellenberg GD, Bird TD, Wijsman EM, Moore DK, **Boehnke M**, Bryant EM, Lampe TH, Nochlin D, Sumi SM, Deeb SS, Beyreuther K, and Martin GM (1988) Absence of linkage of chromosome 21q21 markers to familial Alzheimer's disease. *Science* 241:1507-1510.
25. Tarlo KS, **Boehnke M**, and Chin B (1988) Synergism of mutant frequencies in the mouse lymphoma cell mutagenicity assay by binary mixtures of methyl methanesulfonate and ethyl methanesulfonate. *Mutation Research* 206:239-246.
26. Lange K, Weeks D, and **Boehnke M** (1988) Programs for Pedigree Analysis: MENDEL, FISHER, and dGENE. *Genetic Epidemiology* 5:471-472.
27. Young MR, **Boehnke M**, and Moll PP (1988) Correcting for single ascertainment by truncation for a quantitative trait. *American Journal of Human Genetics* 43:705-708.
28. Diehl SR, **Boehnke M**, Erickson RP, Ploughman LM, Seiler KA, Lieberman JL, Clarke HB, Bruce MA, Schorry EK, Pericak-Vance MA, O'Connell P, and Collins FS (1989) A refined genetic map of the region of chromosome 17 surrounding the von Recklinghausen neurofibromatosis (NF1) gene. *American Journal of Human Genetics* 44:33-37.
29. **Boehnke M** and Moll PP (1989) Identifying pedigrees segregating at a major locus for a quantitative trait: an efficient strategy for linkage analysis. *American Journal of Human Genetics* 44:216-224.
30. Ploughman LM and **Boehnke M** (1989) Estimating the power of a proposed linkage study for a complex genetic trait. *American Journal of Human Genetics* 44:543-551.
31. Olson JM, **Boehnke M**, Neiswanger K, Roche AF, and Siervogel RM (1989) Alternative genetic models for the inheritance of the phenylthiocarbamide taste deficiency. *Genetic Epidemiology* 6:423-434.
32. **Boehnke M**, Arnheim N, Li H, and Collins FS (1989) Fine-structure genetic mapping of human chromosomes using the polymerase chain reaction on single sperm: experimental design considerations. *American Journal of Human Genetics* 45:21-32.
33. Ping AJ, Reeve AE, Law DJ, Young MR, **Boehnke M**, and Feinberg AP (1989) Genetic linkage of Beckwith-Wiedemann syndrome to 11p15. *American Journal of Human Genetics* 44:720-723.

34. **Boehnke M**, Omoto KH, and Arduino JM (1990) Selecting pedigrees for linkage analysis of a quantitative trait: the expected number of informative meioses. *American Journal of Human Genetics* 46:581-586.
35. Kwon JM, **Boehnke M**, Burns TL, and Moll PP (1990) Commingling and segregation analyses: comparison of results from a simulation study of a quantitative trait. *Genetic Epidemiology* 7:57-68.
36. Roth MS, Weiner GJ, Allen EA, Terry VH, Harnden CE, **Boehnke M**, Kaminski MS, and Ginsburg D (1990) Molecular characterization of anti-idiotypic antibody-resistant variants of a murine β -cell lymphoma. *Journal of Immunology* 145:768-777.
37. **Boehnke M** (1990) Sample-size guidelines for linkage analysis of a dominant locus for a quantitative trait by the method of lod scores. *American Journal of Human Genetics* 47:218-227.
38. Olson JM and **Boehnke M** (1990) Monte Carlo comparison of preliminary methods for ordering multiple genetic loci. *American Journal of Human Genetics* 47:470-482.
39. Eto K, Sumi SM, Bird TD, McEvoy-Bush T, **Boehnke M**, and Schellenberg G (1990) Family with dominantly inherited ataxia, amyotrophy, and peripheral sensory loss: Spinopontine atrophy or Machado-Joseph Azorean disease in another non-Portuguese family? *Archives of Neurology* 47:968-974.
40. Sieving PA, Bingham EL, Roth MS, Young MR, **Boehnke M**, Kuo CY, and Ginsburg D (1990) Linkage relationship of X-linked juvenile retinoschisis with Xp22.1-p22.3 probes. *American Journal of Human Genetics* 47:616-621.
41. Iannuzzi MC, Hidaka N, **Boehnke M**, Bruck ME, Hanna WT, Collins FS, and Ginsburg D (1991) Analysis of the relationship of von Willebrand disease (vWD) and hereditary hemorrhagic telangiectasia and identification of a potential type IIA vWD mutation. *American Journal of Human Genetics* 48:757-763.
42. **Boehnke M** (1991) Allele frequency estimation from data on relatives. *American Journal of Human Genetics* 48:22-25.
43. **Boehnke M**, Lange K, and Cox DR (1991) Statistical methods for multipoint radiation hybrid mapping. *American Journal of Human Genetics* 49:1174-1188.
44. Richards JE, Kuo C, **Boehnke M**, and Sieving PA (1991) Rhodopsin Thr58Arg mutation in a family with autosomal dominant retinitis pigmentosa. *Ophthalmology* 98:1797-1805.
45. Sowers MR, **Boehnke M**, Jannausch ML, Crutchfield M, Corton G, and Burns TL (1992) Familiality and partitioning the variability of femoral bone mineral density in women of child-bearing age. *Calcified Tissue International* 50:110-114.
46. **Boehnke M** (1992) Genetic Analysis Workshop 7: radiation hybrid and somatic cell hybrid mapping of chromosome 21. *Cytogenetics and Cell Genetics* 59:74-76.
47. **Boehnke M** (1992) Radiation hybrid mapping by minimization of the number of obligate chromosome breaks. *Cytogenetics and Cell Genetics* 59:96-98.
48. Schellenberg GD, **Boehnke M**, Wijsman EM, Moore DK, Martin GM, and Bird TD (1992) Genetic association and linkage analysis of the apolipoprotein CII locus and familial Alzheimer's disease. *Annals of Neurology* 31:223-227.

49. Lange K and **Boehnke M** (1992) Bayesian methods and optimal experimental design for gene mapping by radiation hybrids. *Annals of Human Genetics* 56:119-144.
50. Altherr MR, Plummer S, Bates G, MacDonald M, Taylor S, Lehrach H, Frischauf AM, Gusella J, **Boehnke M**, and Wasmuth JJ (1992) Radiation hybrid map spanning the Huntington disease gene region of chromosome 4. *Genomics* 13:1040-1046.
51. **Boehnke M** (1992) Multipoint analysis for radiation hybrid mapping. *Annals of Medicine* 24:383-386.
52. Frazer KA, **Boehnke M**, Budarf ML, Wolff RK, Emanuel BS, Myers RM, and Cox DR (1992) A radiation hybrid map of the region on human chromosome 22 containing the neurofibromatosis type 2 locus. *Genomics* 14:574-584.
53. Gorski JL, **Boehnke M**, Reyner EL, and Burright EN (1992) A radiation hybrid map of the proximal short arm of the human X chromosome spanning incontinentia pigmenti 1 (IP1) translocation breakpoints. *Genomics* 14:657-665.
54. Spence MA, Bishop DT, **Boehnke M**, Elston RC, Falk C, Hodge SE, Ott J, Rice J, Merikangas K, and Kupfer D (1993) Methodological issues in linkage analyses for psychiatric disorders: secular trends, assortative mating, bilineal pedigrees. *Human Heredity* 43:166-172.
55. Richard CW III, **Boehnke M**, Berg DJ, Lichy JH, Meeker TC, Hauser E, Myers RM, and Cox DR (1993) A radiation hybrid map of the distal short arm of human chromosome 11, containing the Beckwith-Wiedemann and associated embryonal tumor disease loci. *American Journal of Human Genetics* 52:915-921.
56. Chamberlain JS, **Boehnke M**, Frank TS, Kiouisis S, Xu J, Guo SW, Hauser ER, Norum RA, Helmbold EA, Markel DS, Keshavarzi SM, Jackson CE, Calzone K, Garber J, Collins FS, and Weber BL (1993) BRCA1 maps proximal to D17S579 on chromosome 17q21 by genetic analysis. *American Journal of Human Genetics* 52:792-798.
57. Biesecker BB, **Boehnke M**, Calzone K, Markel DS, Garber JE, Collins FS, and Weber BL (1993) Genetic counseling for families with inherited susceptibility to breast and ovarian cancer. *Journal of the American Medical Association* 269:1970-1974.
58. Abel KJ, **Boehnke M**, Prahalad M, Ho P, Flejter WL, Watkins M, VanderStoep J, Chandrasekharappa SC, Collins FS, Glover TW, and Weber BL (1993) A radiation hybrid map of the *BRCA1* region of chromosome 17q12-21. *Genomics* 17:632-641.
59. Flejter WL, Barcroft CL, Guo SW, Lynch ED, **Boehnke M**, Chandrasekharappa S, Hayes S, Collins FS, Weber BL, and Glover TW (1993) Multicolor FISH mapping with Alu-PCR amplified YAC clone DNA determines the order of markers in the BRCA1 region on chromosome 17q12-q21. *Genomics* 17:624-631.
60. Schork NJ, **Boehnke M**, Terwilliger JD, and Ott J (1993) Two-trait-locus linkage analysis: a powerful strategy for mapping complex genetic traits. *American Journal of Human Genetics* 53:1127-1136.
61. Richards JE, Lichter PR, **Boehnke M**, Uro JL, Torrez D, Wong D, and Johnson AT (1994) Mapping of a gene for autosomal dominant juvenile-onset open-angle glaucoma to chromosome 1q. *American Journal of Human Genetics* 54:62-70.

62. McDonald MT, Papenberg KA, Ghosh S, Glatfelter AA, Biesecker BB, Helmbold EA, Markel DS, Zolotor A, McKinnon WC, Vanderstoep JL, Jackson CE, Iannuzzi M, Collins FS, **Boehnke M**, Porteous ME, Guttmacher AE, and Marchuk DA (1994) A disease locus for hereditary haemorrhagic telangiectasia maps to chromosome 9q33-34. *Nature Genetics* 6:197-204.
63. Yu CE, Payami H, Olson JM, **Boehnke M**, Wijsman EM, Orr HT, Kukull WA, Goddard KA, Nemens E, White JA, Alonso ME, Taylor TD, Ball MJ, Kaye J, Morris J, Chui H, Sadovnick AD, Martin GM, Larson EB, Heston LL, Bird TD, and Schellenberg GD (1994) The apolipoprotein E/CI/CII gene cluster and late-onset Alzheimer disease. *American Journal of Human Genetics* 54:631-642.
64. Lunetta KL and **Boehnke M** (1994) Multipoint radiation hybrid mapping: comparison of methods, sample size requirements, and optimal study characteristics. *Genomics* 21:92-103.
65. **Boehnke M** (1994) Limits of resolution of genetic linkage studies: implications for the positional cloning of human disease genes. *American Journal of Human Genetics* 55:379-390.
66. Couch FJ, Abel KJ, Brody LC, **Boehnke M**, Collins FS, and Weber BL (1994) Localization of the gene for ATP citrate lyase (ACLY) distal to gastrin (GAS) and proximal to D17S856 on chromosome 17q12-q21. *Genomics* 21:444-446.
67. Oshima J, Yu CE, **Boehnke M**, Weber JL, Edelhoff S, Wagner MJ, Wells DE, Wood S, Disteche CM, Martin GM, and Schellenberg GD (1994) Integrated mapping analysis of the Werner Syndrome region of chromosome 8. *Genomics* 23:100-113.
68. Maliarik M, Kost J, Harrington D, Major M, Popovich J, **Boehnke M**, and Iannuzzi MC (1994) Linkage analysis of major histocompatibility genes in familial sarcoidosis. *Sarcoidosis* 11:236-239.
69. Ford D, Easton DF, Bishop DT, Narod SA, Goldgar DE, Haites N, Milner B, Allan L, Ponder BAJ, Peto J, Smith S, Stratton M, Lenoir GM, Feunteun J, Lynch H, Arason A, Barkardottir R, Egilsson V, Black DM, Kelsell D, Spurr N, Devilee P, Cornelisse CJ, Varsen H, Birch JM, Skolnick M, Santibanezkoref MS, Teare D, Steel M, Porter D, Cohen BB, Carothers A, Smyth EM, Weber B, Newbold B, **Boehnke M**, Collins FS, Cannon-Albright LA, and Goldgar D (1994) Risks of cancer in BRCA1- mutation carriers. *Lancet* 343:692-695.
70. Lange K, **Boehnke M**, Cox DR, and Lunetta KL (1995) Statistical methods for polyploid radiation hybrid mapping. *Genome Research* 5:136-150.
71. Lunetta KL, **Boehnke M**, Lange K, and Cox DR (1995) Experimental design and error detection for polyploid radiation hybrid mapping. *Genome Research* 5:151-163.
72. Pawar H, Bingham EL, Lunetta KL, Segal M, Richards JE, **Boehnke M**, and Sieving PA (1995) Refined genetic mapping of juvenile X-linked retinoschisis. *Human Heredity* 45:206-210.
73. Couch FJ, Garber J, Kioussis S, Calzone K, Hauser ER, Merajver SD, Frank TS, **Boehnke M**, Chamberlain JS, Collins FS, and Weber BL (1995) Genetic analysis of eight breast-ovarian cancer families with suspected BRCA1 mutations. *Journal of the National Cancer Institute* 17:9-14.

74. **Boehnke M** and Hulbert-Shearon T (1995) Recombination fraction estimate of zero in the presence of apparent recombinants: effects of incomplete penetrance and sporadic cases. *Genetic Epidemiology* 12:509-513.
75. Easton DF, Ford D, Bishop DT, Haites N, Milner B, Allan L, Easton DF, Ponder BAJ, Peto J, Smith S, Ford D, Stratton M, Narod SA, Lenoir GM, Feunteun J, Lynch H, Arason A, Barkardottir R, Egilsson DV, Bishop DT, Black DM, Kelsell D, Spurr NK, Devilee P, Cornelisse CJ, Varsen H, Birch JM, Santibanezkoref MS, Teare MD, Steel M, Porter D, Cohen BB, Carothers A, Smyth E, Weber B, **Boehnke M**, Collins FS, Cannon-Albright LA, Goldgar D, and Skolnick M (1995) Breast and ovarian-cancer incidence in BRCA1-mutation carriers. *American Journal of Human Genetics* 56:265-271.
76. Narod SA, Ford D, Devilee P, Barkardottir RB, Lynch HT, Smith SA, Ponder BAJ, Weber BL, Garber JE, Birch JM, Cornelis RS, Kelsell DP, Spurr NK, Smyth E, Haites N, Sobol H, Bignon YJ, Chang-claude J, Hamann U, Lindblom A, Borg A, Piver MS, Gallion HH, Struewing JP, Whittemore A, Tonin P, Goldgar DE, Easton DF, Milner B, Allan L, Simard J, Rommens J, McGillivray B, Green R, Ives E, Boyd N, Rosen B, Cole D, Morgan K, Moslehi R, Ponder B, Peto J, Smith S, Stratton M, Dicioccio RA, Gallion H, Santibanezkoref MS, Teare MD, Evans DG, Stoppalyonnet D, Lalle P, Bonaiti C, Essioux L, Girodet C, Maugardlouboutin C, Nicollet G, Longy M, Toulouse C, Horstein I, Birnbaum D, Eisinger F, Karengueven F, Noguchi T, Hardouin A, Rio P, Machelardroumagnac M, Nogues C, Cohenhaguenauer O, Lortholary A, Bay Jo, Arason A, Barkardottir RB, Egilsson V, Bishop DT, Kelsell D, Murday VA, Solomon E, Spurr N, Turner G, Lenoir G, Feunteun J, Lynch H, Lynch J, Watson P, Conway T, Bonnardel C, Serova O, Torchard D, Larsson C, Vasen H, Vanleeuwen I, Cornelisse CJ, Steel M, Porter D, Cohen BB, Carothers A, Cannon-Albright LA, Goldgar D, Skolnick M, Becher H, Johannsson O, Weber B, Collins FS, **Boehnke M**, Garber J, and Li F (1995) An evaluation of genetic-heterogeneity in 145 breast-cancer ovarian-cancer families. *American Journal of Human Genetics* 56:254-264.
77. Ho PP, Couch FJ, Brody LC, Abel KJ, **Boehnke M**, Shearon TH, Chandrasekharappa SC, Collins FS, and Weber BL (1995) Localization of the human homolog of the yeast cell division control 27 gene (CDC27) proximal to ITGB3 on human chromosome 17q21.3. *Somatic Cell and Molecular Genetics* 21:351-355.
78. Hulbert-Shearon T, **Boehnke M**, and Lange K (1996) Lod score curves for phase-unknown matings. *Human Heredity* 46:55-57.
79. Hauser ER, **Boehnke M**, Guo SW, and Risch N (1996) Affected-sib-pair interval mapping and exclusion for complex genetic traits: sampling considerations. *Genetic Epidemiology* 13:117-137.
80. Griffith AJ, Burgess DL, Kohrman DC, Yu J, Blaschak J, Blanton SH, **Boehnke M**, Hecht JT, Overhauser J, and Meisler MH (1996) Localization of the homolog of a mouse craniofacial mutant to human chromosome 18q11 and evaluation of linkage to human CLP and CPO. *Genomics* 34:299-303.
81. Hou YC, Richards JE, Bingham EL, Pawar H, Scott K, Segal M, Lunetta KL, **Boehnke M**, and Sieving PA (1996) Linkage study of Best's vitelliform macular dystrophy (VMD2) in a large North American family. *Human Heredity* 46:211-220.
82. Richards JE, Lichter PR, Herman S, Hauser ER, Hou YC, Johnson AT, and **Boehnke M** (1996) Probable exclusion of GLC1A as a candidate glaucoma gene in a family with middle-age-onset primary open-angle glaucoma. *Ophthalmology* 103:1035-1040.

83. Johnson AT, Richards JE, **Boehnke M**, Stringham HM, Herman SB, Wong DJ, and Lichter PR (1996) Clinical phenotype of juvenile-onset primary open-angle glaucoma linked to chromosome 1q. *Ophthalmology* 103:808-814.
84. Lunetta KL, **Boehnke M**, Lange K, and Cox DR (1996) Selected locus and multiple mapping panel models for radiation hybrid mapping. *American Journal of Human Genetics* 59:717-725.
85. Stringham HM and **Boehnke M** (1996) Identifying marker typing incompatibilities in linkage analysis. *American Journal of Human Genetics* 59:946-950.
86. Nichols WC, Antin JH, Lunetta KL, Terry VH, Hertel CE, Wheatley MA, Arnold ND, Siemieniak DR, **Boehnke M**, and Ginsburg D (1996) Polymorphism of adhesion molecule CD31 is not a significant risk factor for graft-versus-host disease. *Blood* 88:4429-4434.
87. Lichter PR, Richards JE, **Boehnke M**, Othman M, Cameron BD, Stringham HM, Downs CA, Lewis SB, and Boyd BF (1996) Juvenile glaucoma linked to GLC1A in a Panamanian family. *Transactions of the American Ophthalmology Society* 44:335-346.
88. Lichter PR, Richards JE, **Boehnke M**, Othman M, Cameron BD, Stringham HM, Downs CA, Lewis SB, and Boyd BF (1997) Juvenile glaucoma linked to the GLC1A gene on chromosome 1q in a Panamanian family. *American Journal of Ophthalmology* 123:413-416.
89. Ghosh S, Karanjawala ZE, Hauser ER, Ally D, Knapp JI, Rayman JB, Musick A, Tannenbaum J, Te C, Shapiro S, Eldridge W, Musick T, Martin C, Smith J, Carpten JD, Brownstein MJ, Powell JI, Whiten R, Chines P, Nylund SJ, Magnuson VL, **Boehnke M**, Collins FS, and the FUSION Study Group (1997) Methods for precise sizing, automated binning of alleles and reduction of error rates in large-scale genotyping using fluorescently-labeled dinucleotide markers. *Genome Research* 7:165-178.
90. **Boehnke M** and Cox NJ (1997) Accurate inference of relationships in sib-pair linkage studies. *American Journal of Human Genetics* 61:423-429.
91. Lichter PR, Richards JE, Downs CA, Stringham HM, **Boehnke M**, and Farley FA (1997) Cosegregation of open-angle glaucoma and the nail-patella syndrome. *American Journal of Ophthalmology* 124:506-515.
92. **Boehnke M** and Langefeld CD (1998) Genetic association mapping based on discordant sib pairs: the discordant alleles test (DAT). *American Journal of Human Genetics* 62:950-961.
93. Valle T, Tuomilehto J, Bergman RN, Ghosh S, Hauser ER, Eriksson J, Nylund SJ, Kohtamäki K, Toivanen L, Vidgren G, Tuomilehto-Wolf E, Ehnholm C, Blaschak J, Langefeld CD, Watanabe RM, Magnuson V, Ally DS, Hagopian WA, Ross E, Buchanan TA, Collins FS, and **Boehnke M** (1998) Mapping genes for NIDDM. Design of the Finland-United States Investigation of NIDDM Genetics (FUSION) Study. *Diabetes Care* 21:949-958.
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98. Hauser ER and **Boehnke M** (1998) Genetic linkage analysis of complex genetic traits by using affected sibling pairs. *Biometrics* 54:1238-1246.
99. Ghosh S, Langefeld CD, Ally D, Watanabe RM, Hauser ER, Magnuson VL, Nylund SJ, Valle T, Eriksson J, Bergman RN, Tuomilehto J, Collins FS, and **Boehnke M** (1999) The W64R variant of the β 3-adrenergic receptor is not associated with Type II diabetes or obesity in a large Finnish sample. *Diabetologia* 42:238-244.
100. Ghosh S, Watanabe RM, Hauser ER, Valle T, Magnuson VL, Erdos MR, Langefeld CD, Balow J Jr, Ally DS, Kohtamäki K, Chines P, Birznieks G, Kaleta H, Musick A, Te C, Tannenbaum J, Eldridge W, Shapiro S, Martin C, Witt A, So A, Chang J, Shurtleff B, Porter R, Kudelko K, Unni A, Segal L, Sharaf R, Blaschak-Harvan J, Eriksson J, Tenkula T, Vidgren G, Ehnholm C, Tuomilehto-Wolf E, Hagopian W, Buchanan TA, Tuomilehto J, Bergman RN, Collins FS, and **Boehnke M** (1999) Type 2 diabetes: evidence for linkage on chromosome 20 in 716 Finnish affected sib pairs. *Proceedings of the National Academy of Sciences USA* 96:2198-2203.
101. Hodge SE, **Boehnke M**, and Spence MA (1999) Loss of information due to ambiguous haplotyping of SNPs. *Nature Genetics* 21:360-361.
102. Watanabe RM, Valle T, Hauser ER, Ghosh S, Eriksson J, Kohtamäki K, Ehnholm C, Tuomilehto J, Collins FS, Bergman RN, and **Boehnke M** for the Finland-United States Investigation of NIDDM Genetics (FUSION) Study Investigators (1999) Familiality of quantitative metabolic traits in Finnish families with non-insulin dependent diabetes mellitus. *Human Heredity* 49:159-168.
103. Stringham HM, **Boehnke M**, and Lange K (1999) Point and interval estimates of marker location in radiation hybrid mapping. *American Journal of Human Genetics* 65:545-553.
104. Douglas JA, **Boehnke M**, and Lange K (2000) A multipoint method for detecting genotyping errors and mutations in sibling-pair linkage data. *American Journal of Human Genetics* 66:1287-1297.
105. **Boehnke M** (2000) A look at linkage disequilibrium. *Nature Genetics* 25:246-247.

106. Ghosh S, Watanabe RM, Valle TT, Hauser ER, Magnuson VL, Langefeld CD, Ally DS, Mohlke KL, Silander K, Kohtamäki K, Chines P, Balow J, Birznieks G, Chang J, Eldridge W, Erdos MR, Karanjawala ZE, Knapp JI, Kudelko K, Martin C, Morales-Mena A, Musick A, Musick T, Pfahl C, Porter R, Rayman JB, Rha D, Segal L, Shapiro S, Sharaf R, Shurtleff B, So A, Tannenbaum J, Te C, Tover J, Unni A, Welch C, Whiten R, Witt A, Blaschak-Harvan J, Douglas JA, Duren WL, Epstein MP, Fingerlin TE, Kaleta HS, Lange EM, Li C, McEachin RC, Stringham HM, Trager E, White PP, Eriksson J, Toivanen L, Vidgren G, Nylund SJ, Tuomilehto-Wolf E, Ross EH, Demirchyan E, Hagopian WA, Buchanan TA, Tuomilehto J, Bergman RN, Collins FS, and **Boehnke M** (2000) The Finland-United States Investigation of Non-Insulin-Dependent Diabetes Mellitus Genetics (FUSION) Study. I. An autosomal genome scan for genes that predispose to Type 2 diabetes. *American Journal of Human Genetics* 67:1174-1185.
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114. Douglas JA, Skol A, and **Boehnke M** (2002) Probability of detection of genotyping errors and mutations as inheritance inconsistencies in nuclear-family data. *American Journal of Human Genetics* 70:487-495.

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129. Hauser ER, Watanabe RM, Duren WL, Bass MP, Langefeld CD, and **Boehnke M** (2004) Ordered subset analysis in genetic linkage mapping of complex traits. *Genetic Epidemiology* 27:53-63.
130. Lange EM and **Boehnke M** (2004) The haplotype runs test: I. The parent-parent-affected offspring trio design. *Genetic Epidemiology* 27:118-130.
131. Conneely KN, Silander K, Scott LJ, Mohlke KL, Lazaridis KN, Valle TT, Tuomilehto J, Bergman RN, Watanabe RM, Buchanan TA, Collins FS, and **Boehnke M** (2004) Variation in the resistin gene is associated with obesity and insulin-related phenotypes in Finnish subjects. *Diabetologia* 47:1782-1788.
132. Shimizu S, Krafchak C, Fuse N, Epstein MP, Scheingart MT, Sugar A, Eibschitz-Tsimhoni M, Downs CA, Rozsa F, Trager EH, Reed DM, **Boehnke M**, Moroi SE, and Richards JE (2004) A second locus for posterior polymorphous corneal dystrophy (PPCD3) maps to chromosome 10. *American Journal of Medical Genetics* 130:372-377.
133. Mohlke KL and **Boehnke M** (2005) The role of HNF4A variants in the risk of type 2 diabetes. *Current Diabetes Reports* 5:149-156.
134. Mohlke KL, Skol AD, Scott LJ, Valle TT, Bergman RN, Tuomilehto J, **Boehnke M**, and Collins FS (2005) Evaluation of SLC2A10 (GLUT10) as a candidate gene for type 2 diabetes and related traits in Finns. *Molecular Genetics and Metabolism* 85:323-327.
135. Li M, **Boehnke M**, and Abecasis GR (2005) Joint modeling of linkage and association: identifying SNPs responsible for a linkage signal. *American Journal of Human Genetics* 76:934-949.
136. Hanna G, Fingerlin TE, Himle JA, and **Boehnke M** (2005) Complex segregation analysis of obsessive-compulsive disorder in families with pediatric probands. *Human Heredity* 60:1-9.
137. Faraone SV, Skol AD, Tsuang DW, Young KA, Haverstock SL, Prabhudesai S, Mena F, Menon AS, Leong L, Sautter F, Baldwin C, Bingham S, Weiss D, Collins J, Keith T, vanden Eng JL, **Boehnke M**, Tsuang MT, and Schellenberg GD (2005) Genome scan of schizophrenia families in a large Veterans Affairs Cooperative Study Sample: evidence

- for linkage to 18p1132 and for racial heterogeneity on chromosomes 6 and 14. *American Journal of Medical Genetics* 139:91-100.
138. Skol AD, Xiao R, and **Boehnke M** (2005) An algorithm to construct genetically similar subsets of families using self-reported ethnicity information. *American Journal of Human Genetics* 77:346-354.
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 140. Krafchak CM, Pawar H, Moroi SE, Sugar A., Lichter PR, Mackey DA, Mian S, Nairus T, Elner V, Scheingart MT, Downs CA, Kijek TG, Johnson JM, Trager EH, Rozsa FW, Mandal MNA, Epstein MP, Vollrath D, Ayyagari R, **Boehnke M**, and Richards JE (2005) Mutations in TCF8 cause posterior polymorphous corneal dystrophy and ectopic expression of COL4A3 by corneal endothelial cells. *American Journal of Human Genetics* 77:694-708.
 141. Skol AD, Scott LJ, Abecasis GR, and **Boehnke M** (2006) Joint analysis is more efficient for whole genome association studies. *Nature Genetics* 38:209-213. Corrigendum. *Nature Genetics* 38:390
 142. Willer CJ, Scott LJ, Bonnycastle LL, Jackson AU, Chines P, Pruim R, Bark CW, Tsai YY, Pugh EW, Doheny KF, Kinnunen L, Mohlke KL, Valle TT, Bergman RN, Tuomilehto J, Collins FS, and **Boehnke M** (2006) Tag SNP selection for Finnish individuals based on the CEPH Utah HapMap database. *Genetic Epidemiology* 30:180-190.
 143. Li C and **Boehnke M** (2006) Haplotype association analysis for late onset diseases using nuclear family data. *Genetic Epidemiology* 30:220-230.
 144. Li M, Boehnke M, and Abecasis GR (2006) Efficient study designs for test of genetic association using sibship data and unrelated cases and controls. *American Journal of Human Genetics*, in press.
 145. Woodroffe A, Krafchak CM, Fuse N, Lichter PR, Moroi SE, Schertzer R, Downs CA, Duren WL, **Boehnke M**, and Richards JE (2006) Ordered subset analysis supports a glaucoma locus at GLC1I on chromosome 15 in families with earlier adult age at diagnosis. *Experimental Eye Research*, in press.
 146. Shtir C, Nagakawa IS, Duren WL, Scott LJ, Silander K, Valle TT, Tuomilehto J, Buchanan TA, Bergman RN, Collins FS, **Boehnke M**, and Watanabe RM (2006) Unique subsets of Finns show evidence for linkage to type 2 diabetes on chromosome 6q, submitted for publication.
 147. Li M, **Boehnke M**, Abecasis GR (2006) Efficient study designs for test of genetic association using sibship data and unrelated cases and controls. *American Journal of Human Genetics*, in press.
 148. Li M, **Boehnke M**, Abecasis GR, and Song PJK (2006) Quantitative trait linkage analysis using Gaussian copulas. *Genetics*, in press

149. Fingerlin TE, Abecasis GR, **Boehnke M** (2006) Using sex-averaged genetic maps in multipoint linkage analysis when identity-by-descent status is incompletely known. *Genetic Epidemiology*, in press

c) Publications which have not received peer review

Chu EHY, **Boehnke M**, and Hanash SM (1987) Application of two-dimensional electrophoresis to the detection of human somatic mutations at the protein level. In *Banbury Report 28: Mammalian Cell Mutagenesis*, Cold Spring Harbor Laboratory, Cold Spring Harbor, New York, pp. 203-209

Epstein MP and **Boehnke M** (2002) "Relationship Testing", in R.C. Elston, J.M. Olson and L. Palmer, editors, *Biostatistical Genetics and Genetic Epidemiology*. John Wiley & Sons, Ltd, Chichester, pp. 673-678.

d) Book reviews/Letters to the editor

Boehnke M (1990) (Book Review) Multipoint mapping and linkage analysis based upon affected pedigree members: Genetic Analysis Workshop 6 in *Progress in Clinical and Biological Research*, edited by Elston, R.C., Spence, M.A., Hodge, S.E., and MacCluer, J.W. *American Journal of Human Genetics* 47:1031-1032.

Boehnke M (1991) Letter to the editor: reply to Chakraborty. *American Journal of Human Genetics* 49:243-244.

Boehnke M (1992) (Book Review) *Analysis of Human Genetic Linkage, Revised Edition*, by Jürg Ott. *American Journal of Human Genetics* 51:917-918.

Schork NJ, **Boehnke M**, Terwilliger JD, Ott J (1994) Letter to the Editor: reply to Sham. *American Journal of Human Genetics* 55:856-858.

Boehnke M (2000) (Book Review) *Analysis of Human Genetic Linkage, Third Edition*, by Jürg Ott. *American Journal of Human Genetics* 66:1725.

e) Papers delivered at professional meetings (1994 – present)

Limits of resolution of human linkage studies. Invited presentation: The Biometric Society ENAR meetings, Cleveland, Ohio, April 11, 1994.

Statistical methods for diploid and polyploid radiation hybrid mapping of human chromosomes. Refereed platform presentation: Genome Mapping and Sequencing Meeting, Cold Spring Harbor, New York, May 14, 1994.

Mapping and exclusion of genes for complex traits: application to NIDDM. Invited presentation: Banbury Conference on Molecular Genetics of Diabetes, Cold Spring Harbor, New York, December 7, 1994.

Mapping genes for complex human diseases. Invited presentation: Wellcome Trust Course on Human Gene Mapping, Oxford, United Kingdom, July 19, 1995.

Statistical methods for whole genome radiation hybrid mapping. Invited presentation: Methods for Gene Mapping, Tarrytown, New York, November 13, 1995.

Mapping genes for complex human diseases. Invited presentation: Human Genome Lecture Series, National Center for Human Genome Research, Bethesda, Maryland, January 18, 1996.

Mapping genes for complex human diseases: application to adult-onset diabetes. Invited presentation: New Horizons in Genetics, Farmington Hills, Michigan, May 17, 1997.

Association mapping based on discordant sib pairs. Invited presentation: Genetics of Diabetes, Ystad, Sweden, July 25, 1997.

The genetics of complex diseases. Invited presentation: The Future of Diabetes Research. Bethesda, Maryland, September 5, 1997.

Family-based tests for association using discordant sib pairs. Invited presentation: The Biometric Society, ENAR meetings, Pittsburgh, Pennsylvania, March 29, 1998.

Linkage disequilibrium and human gene mapping. Invited presentation: American Diabetes Association meeting, Genetics of Diabetes, San Jose, California, October 19, 1999.

New developments in statistical methods for human gene mapping. Invited presentation: US-Japan Symposium in the Cardiovascular Area, Honolulu, Hawaii, January 9, 2001.

Strategies to identify genetic variants responsible for a linkage signal for a complex genetic trait. Invited presentation: AACR Oncogenomics, Phoenix, Arizona, January 31, 2003.

Mapping type 2 diabetes genes on chromosome 20: FUSION and beyond. Invited platform presentation: American Society of Human Genetics, Toronto, Ontario, Canada, October 28, 2004.

Design considerations in large-scale genetic association studies. Invited platform presentation: American Society of Human Genetics, Salt Lake City, Utah, October 27, 2005.

f) Seminars (1994-present)

Department of Biostatistics, Harvard University, Boston, Massachusetts, Myrto Lefkopolou Distinguished Lecturer, September 26, 1994.

Department of Human Genetics, University of Pittsburgh, Pittsburgh, Pennsylvania, February 24, 1995.

Department of Epidemiology, University of Michigan, Ann Arbor, Michigan, March 22, 1995.

Wellcome Trust Center for Human Genetics, Oxford University, Oxford, England, July 19, 1995.

National Center for Human Genome Research, National Institutes of Health, Bethesda, Maryland, January 18, 1996.

Samuel Lunenfeld Research Institute, University of Toronto, Toronto, Canada, March 29, 1996.

Department of Genetics, University of Wisconsin, Madison, Wisconsin, March 5, 1997.

Center for Medical Genetics, Marshfield Clinic, Marshfield, Wisconsin, March 6, 1997.

Department of Biometry and Genetics, Case Western Reserve University, Cleveland, Ohio, April 18, 1997.

Department of Biostatistics, Johns Hopkins University, Baltimore, Maryland October 30, 1997.

Department of Biostatistics, Washington University, Saint Louis, Missouri, May 4, 1998.

Department of Biostatistics, University of Washington, November 18, 1998.

Human Medical Genetics Program, University of Colorado, Denver, Colorado, November 4, 1999.

Pharmacia-Upjohn, Kalamazoo, Michigan, January 28, 2000.

Department of Statistics, University of Florida, Gainesville, Florida, February 15, 2000.

Department of Neurology, Oregon Health Sciences University, Portland, Oregon, March 8, 2000.

Pfizer, Groton, Connecticut, November 13, 2000.

University of Texas Southwestern Medical School, Dallas, Texas, November 17, 2000.

Science Research Club, University of Michigan, Ann Arbor, Michigan, April 3, 2001.

Center for Human Genetics, Duke University, Durham, North Carolina, May 24, 2001.

Department of Biostatistics and Epidemiology, Medical University of South Carolina, Charleston, South Carolina, March 25, 2002.

Rubicon Genomics, Ann Arbor, Michigan, April 12, 2002.

Department of Biostatistics, University of North Carolina, Chapel Hill, North Carolina, Greenberg Lecturer, May 22-24, 2002. Series of four seminars.

Biogen, Boston, Massachusetts, July 9, 2002.

Department of Human Genetics, University of California at Los Angeles, Los Angeles, California, May 12, 2003.

Wayne State University, Detroit, Michigan, September 8, 2003.

Department of Statistics, Michigan State University, East Lansing, Michigan, November 18, 2003.

McKusick-Nathans Institute of Genetic Medicine, Johns Hopkins University, Baltimore, Maryland, February 2, 2004.

Department of Human Genetics, Emory University, Atlanta, Georgia, December 2, 2004

Universidad Metropolitana, San Juan, Puerto Rico, September 17, 2005

National Institute of Mental Health, Bethesda, Maryland, March 14, 2006

University of Alabama at Birmingham, Birmingham, Alabama, March 24, 2006

Johns Hopkins University, Baltimore, Maryland, March 30, 2006

Medical University of South Carolina, Charleston, South Carolina, April 21, 2006

CURRENT SPONSORED RESEARCH

“Design and Analysis of Human Gene Mapping Studies”, NIH NHGRI, R01 HG00376, 9/1/05 - 8/31/10, 50% effort, P.I. Michael Boehnke, \$1,261,028.

“Institutional Training Grant in Genomic Science”, NIH NHGRI T32 HG00040, 7/1/05 – 6/30/10, 5% effort, P.I. Michael Boehnke, \$2,135,473.

“Identifying Genes for Type 2 Diabetes: FUSION”, NIH NIDDK R01 DK062370, 5/1/03 - 4/30/08, 25% effort, P.I. Michael Boehnke, \$3,512,852.

“Molecular Genetics of Primary Open-Angle Glaucoma”, NIH NEI EY11671, 4/1/04 - 3/31/09, 8% effort, P.I. Julia Richards.

“Molecular Epidemiology of Colorectal Cancer”, NIH NCI CA81488, 6/1/04-5/31/09. 2% effort, P.I. Stephen Gruber.

“Pritzker Neuropsychiatric Disorders Research Consortium”, Pritzker Foundation, 12/1/00 - 11/30/06, 10% effort. P.I. Stan Watson, Huda Akil.

“Targeted Genetics Analysis of T2D and Quantitative Traits”, NIH NIDDK. 9/1/05 - 6/30/10, 5% effort, P.I. Karen Mohlke.

“National Center for Integrative Biomedical Informatics”, NIH 1U54 DA021519, 9/25/05 – 8/31/10, 5% effort, P.I. Brian Athey.

“Genomic Analysis of Schizophrenia”, VA Seattle Institute of Biomedical and Clinical Research, 4/1/06 - 3/31/10, 5% effort, P.I. Gerard Schellenberg.

PREVIOUS SPONSORED RESEARCH

“Linkage Studies in Neurofibromatosis”, NIH NS23410, 4/1/86 - 3/31/89, 15% effort, P.I. Robert Erickson.

“Comparison of Fixed and Sequential Sampling for Family Studies”, Rackham Faculty Research Grant, 1/5/87 - 12/31/87, 0% effort, P.I. Michael Boehnke, \$9,927.

“Alzheimer Disease Research Center”, subcontract from the University of Washington, Seattle, Michigan, 5/1/87 - 12/31/87, 20% effort, P.I. Michael Boehnke.

“Michigan Diabetes Research and Training Center”, 9/1/87 - 8/31/89, 10% effort, P.I. Douglas Greene.

“Program Project: The Study of Human Mutation”, NIH CA26803, 12/1/87 - 11/30/90, 10% effort, P.I. Samir Hanash.

“Design Issues in Genetic Linkage and Segregation Studies”, NIH R29 HG00376, 9/28/88 - 8/31/93, 50% effort, P.I. Michael Boehnke, \$349,752.

“Macular Genetic Studies of Human X-Chromosomal Retinal Dystrophies”, Retinitis Pigmentosa Foundation, 10/1/88 - 6/30/91, 5% effort, P.I. Paul Sieving.

“The Effects of Bilineal Pedigrees in Linkage Analysis”, MacArthur Foundation, 3/1/90 - 2/28/91, 0% effort, P.I. Michael Boehnke, \$11,369.

“Two-Trait Locus Models for Linkage Analysis of Complex Traits”, MacArthur Foundation, 5/1/91 - 12/31/91, 0% effort, P.I. Michael Boehnke, \$7,024.

“Efficient Use of Two-Trait Linkage Analysis”, MacArthur Foundation, 6/1/92 - 5/31/93, 0% effort, P.I. Michael Boehnke, \$12,800.

“Linkage Studies in Neurofibromatosis”, NIH R01 NS23410, 4/1/89 - 3/31/94, 5% effort, P.I. Francis Collins.

“Genomic Technology and Genetic Disease”, Statistical Genetics Core, 9/30/90 - 7/31/95, 15% effort, P.I. (Core) Michael Boehnke, P.I. (Center) Francis Collins and Miriam Meisler.

“Retinitis Pigmentosa Research Center”, National Retinitis Pigmentosa Foundation, 7/1/91 - 6/30/94, 5% effort, P.I. Paul Sieving.

“Molecular Genetics of Juvenile Onset Glaucoma”, NIH R01 EY09580, 9/30/92 - 9/29/95, 10% effort, P.I. Julia Richards.

“Mapping Genes for Type 2 Diabetes”, supplement to "Genomic Technology and Genetic Disease", NIH P30 HG00209, 6/1/94-7/31/95, 15% effort, P.I. (Supplement) Michael Boehnke, P.I. (Center) Miriam Meisler, \$111,415.

“Design and Analysis of Human Gene Mapping Studies”, NIH R01 HG00376, supplement, 9/1/95 - 8/31/98, 15% effort, P.I. Michael Boehnke, \$310,535.

“FUSION: Statistical Analysis and Database Support”, NIH, 5/1/97 - 12/31/00, 15% effort, P.I. Michael Boehnke, \$282,321.

“Public Health Genetics: An Education Model”, NIH HG01511, 12/09/96 - 11/30/99, 5% effort (no salary), P.I. Susan Caumartin.

“Isolation of the Gene(s) for Ataxia-Telangiectasia”, NIH R01 CA57569, 4/1/97 - 3/31/00, 2% effort, P.I. Patrick Concannon, Virginia Mason Research Center.

“Institutional Training Grant in Genomic Science”, NIH T32 HG00040, 7/1/95 - 6/30/00, 5% effort (no salary), P.I. Michael Boehnke, \$1,163,746.

“Molecular Genetics of Juvenile Onset Glaucoma”, NIH R01 EY09580, 12/8/95 - 11/30/00, 10% effort, P.I. Julia Richards.

“Design and Analysis of Human Gene Mapping Studies”, NIH R01 HG00376, 9/1/98 - 8/31/01, 50% effort, P.I. Michael Boehnke, \$418,108.

“Molecular Genetics of Primary Open-Angle Glaucoma”, NIH EY11671, 12/1/97 - 11/30/02, 10% effort, P.I. Julia Richards.

“Mental Illness Research, Education, and Clinical Center (MIRECC)”, United States Department of Veterans Affairs, 10/1/99 – 9/30/05, 10% effort, P.I. Murray Raskind, University of Washington.

“Software for Integrated Linkage and Association Analysis”, NIH R01 MH59528, 4/1/00 - 3/31/03, 5% effort, P.I. Elizabeth Hauser, Duke University.

“Mapping Genes for Non-Insulin Dependent Diabetes Mellitus”, NIH HG15465, 5/7/01-5/31/03, 30% effort, P.I. Michael Boehnke \$2,754,131.

“Consortium Linkage Studies of Type 2 Diabetes”, NIH NIDDK U01 DK 58026, 6/1/99 – 5/31/05, 5% effort, P.I. Nancy Cox, University of Chicago.

“Design and Analysis of Human Gene Mapping Studies”, NIH NHGRI, R01 HG00376, 9/1/01 - 8/31/05, 50% effort, P.I. Michael Boehnke, \$800,000.

“Institutional Training Grant in Genomic Science”, NIH NHGRI T32 HG00040, 7/1/00 - 6/30/05, 5% effort, P.I. Michael Boehnke, \$1,932,942.

TEACHING

Introduction to Biostatistics: 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1995, 1997, 2000, 2005.

Textbook: D.S. Moore and G.P. McCabe, *Introduction to the Practice of Statistics*, fifth edition.

Foundations of Biostatistical Inference: 1984, 1985, 1986.

Textbook: B. Lindgren, *Statistical Theory*.

Statistical Models and Numerical Methods in Human Genetics: 1985, 1987, 1989, 1991, 1993, 1995, 1997, 1999.

Introduction to Applied Stochastic Processes: 1986.

Textbook: H.M. Taylor and S. Karlin, *Introduction to Stochastic Modeling*.

Introduction to Mathematical Modeling in Clinical Research: 1986, 1988.

Statistical Computer Packages: 1987.

Readings in Statistical Human Genetics: 1992, 1996, 1997, 1998, 2000, 2004.

Advanced Topics in Genetic Modeling: 1999, 2003, 2005.

Textbook: K. Lange, *Mathematical and Statistical Models for Genetic Analysis*.

Readings in Quantitative Genetics: 2004.

Textbook: M. Lynch and B. Walsh, *Genetics and Analysis of Quantitative Traits*.

DOCTORAL COMMITTEE SERVICE: CHAIR OR CO-CHAIR

Lynn M. Ploughman, Department of Biostatistics, 1990. Chair. “Linkage Analysis: Power Estimation and Comparison of Methods.”

Nicholas Schork, Department of Epidemiology, 1994. Co-Chair. “Advances in the Genetic-Epidemiologic Analysis of Complex Phenotypes.”

Kathryn Lunetta, Department of Biostatistics, 1996. Chair. “Models and Experimental Design for Radiation Hybrid Mapping.”

Elizabeth Hauser, Department of Biostatistics, 1998. Chair. “Methods for Linkage Analysis of Complex Genetic Disease.”

Carl Langefeld, Department of Biostatistics, 1999. Chair. “The Application of Statistical Methods for Highly Stratified Data to Linkage and Association Analysis of Complex Genetic Traits.”

Heather Stringham, Department of Biostatistics, 2000. Chair. “Bayesian Solutions to Problems of Uncertainty in Genetic Data.”

Ethan M. Lange, Department of Biostatistics, 2001. Chair. “Methods for Mapping Disease Susceptibility Genes Using Allele-Sharing Statistics.”

Julie A. Douglas, Department of Biostatistics, 2001. Chair. “Methods for Resolving Genotype and Haplotype Ambiguity in Human Genetic Data.”

Michael P. Epstein, Department of Biostatistics, 2002. Co-Chair. “Statistical Methods in Gene Mapping of Familial Traits.”

Chun Li, Department of Biostatistics, 2003. Chair. “Association Methods for Mapping Genes for Complex Diseases.”

Tasha E. Fingerlin, Department of Epidemiology, 2003. Co-Chair. “Application of Association and Linkage Methods in Studies of Complex Traits.”

Mingyao Li, Department of Biostatistics, 2005, Co-Chair. “Statistical Methods in Gene Mapping of Complex Diseases.”

Andrew Skol, Department of Biostatistics, Chair.

Karen Conneely, Department of Biostatistics, Chair.

DOCTORAL COMMITTEE SERVICE: MEMBER

Daniel J. Odenheimer, Department of Epidemiology, 1985. “An Evaluation of the Validity of Complex Segregation Analysis in Identifying an Individual's Genotype at a Major Locus.”

Ann R. G. Schwartz, Department of Epidemiology, 1986. “A New Method for Detecting Familial Heterogeneity of Cancer Risk: A Population-Based Study in Metropolitan Detroit.”

Mark Graves, Department of Electrical Engineering and Computer Science, 1994. “Theories and Tools for Designing Application-Specific Knowledge Base Data Models.”

Kim Papenberg, Department of Human Genetics, 1995. “Hereditary Hemorrhagic Telangiectasia: From Linkage to Mutation Analysis.”

Benjamin Rybicki, Department of Epidemiology, 1997. “Genetic Epidemiology of Sarcoidosis.”

Ruzong Fan, Department of Biostatistics, 1998. “Mathematical and Statistical Models for Mutant Genes in Nonstationary Populations.”

George J. Papanicolaou, Department of Human Genetics, 1999. “Genotypic and Phenotypic Analysis of Malignant Melanoma: Analysis of Gene Expression Patterns”.

Leslie Lange, Department of Epidemiology, 2000. “Identification and Analysis of Candidate Genes for Coronary Artery Calcification.”

Anne V. Jackson, Department of Human Genetics, 2000. “A Mouse Model System for Quantitative Genetics of Age-Sensitive Traits.”

Mohammad Khoshnevisan, Department of Epidemiology, 2001. "Selected Genetic and Environmental Risk Factors in the Etiology of Human Oral Clefting."

Cathryn H. Bock, Department of Epidemiology, 2003. "Early Detection Practices, Decreasing Age at Diagnosis, and a Linkage Analysis in Prostate Cancer Families."

Erik Ferragut, Department of Mathematics, 2003. "Detection of Epistatic Effects in Genetic Data."

Bethany L. Niell, Department of Epidemiology, 2003. "Colorectal Cancer Epidemiology: Genes, Environment, and History."

Laura Rozek, Department of Epidemiology, 2003. "Candidate Genes for Colorectal Cancer in Structured Populations."

Michelle Cote, Department of Epidemiology, 2003. "Early Onset Lung Cancer: Racial Differences in Familial Aggregation, Genetic Polymorphisms and Survival."

Charles Krafchak, Department of Epidemiology. 2004. "Genetic Characterization of Posterior Polymorphous Corneal Dystrophy."

Jennifer Poynter, Department of Epidemiology, 2005. "Molecular Epidemiology of Colorectal Cancer: Mechanisms of Risk and Clues Towards Chemoprevention."

OTHER STUDENT RESEARCH SUPERVISION

Kirk Tarlo, Department of Environmental and Industrial Health

Martin Young, Department of Biostatistics

Jane Olson, Department of Biostatistics

Jennifer Kwon, Department of Epidemiology

Jill VanderStoep, Department of Biostatistics

Justine Uro, Department of Biostatistics

Tempie Hulbert-Shearon, Department of Biostatistics

Weihua Guan, Department of Biostatistics

Rui Xiao, Department of Biostatistics

Yun Li, Department of Biostatistics

Charles Ding, Department of Biostatistics

Xiao-Yi Li, Department of Biostatistics

PROFESSIONAL SERVICE

Associate Editor:

American Journal of Human Genetics

1989-1991

Journal of the American Statistical Association

1993-2003

Human Heredity

1992-present

Editorial Advisory Board:

Genome Research

1995-1999

Genetic Epidemiology

1997-present

Referee for:

American Journal of Human Genetics

Annals of Statistics

Annals of Thoracic Surgery
Bioinformatics
Biotechniques
Biological Psychiatry
Biometrics
Cell
Cephalalgia
Communications in Statistics
Diabetes
Diabetologia
European Journal of Human Genetics
Genetic Epidemiology
Genetics
Genome Research
Genomics
Human Genetics
Human Genomics
Human Heredity
Human Molecular Genetics
Journal of Clinical Endocrinology and Metabolism
Journal of Clinical Investigation
Journal of Heredity
Journal of the American Statistical Association
Molecular Biology and Evolution
Molecular Medicine
Nature
Nature Genetics
Nature Medicine
PLoS Genetics
PLoS Medicine
Proceedings of the National Academy of Sciences USA
Science
Theoretical and Applied Genetics

Grant Review

Member, Mammalian Genetics Study Section, 1994 – 1997.
Member, Center for Inherited Disease Research (CIDR) Access Committee, 1997 – 2002.
Member, NIGMS Human Mutant Cell Repository Advisory Committee, 1998 – 2001.

Other:

Co-Organizer (with Nancy Cox) of International Type 2 Diabetes Linkage Analysis Consortium. Chair, Steering Committee. Member, Analysis and Mapping Committee. 1997 - present.

Member, Genetics Steering Committee, NIMH, 2003 – present.

Member, External Advisory Board, International Type 1 Diabetes Genetics Consortium, NIDDK, 2003 – present.

Member, External Advisory Board, European Academy Bolzano Institute for Genetic Medicine, Bolzano, Italy, 2004 – present.

Member, External Advisory Board, Program for Genomic Applications: Seattle SNPs, 2004 – present.

Member, Awards Committee, American Society of Human Genetics, 2005 – 2007.

Member, Board of Directors, American Society of Human Genetics, 2006 – 2008.