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Professor and Associate Chair for Education  
Department of Biostatistics  
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**Education:**

University of Virginia, Charlottesville, B.S. Electrical Engineering, 1985-1988 highest distinction

University of California, Berkeley, M.A. Statistics, 1992

University of California, Berkeley, Ph.D. Statistics, 1996

Harvard University, Post-Doctoral Fellow, Biostatistics/Epidemiology, 1996-1999.

**Positions:**

Research Assistant, Integrated Circuit Reliability Department, AT&T Bell Laboratories, Allentown, PA, Summer 1987.

Research Assistant, Optical Computing Department, AT&T Bell Laboratories, Holmdel, NJ, Summers 1989-1990.

Teaching Assistant, Department of Electrical Engineering and Computer Science, University of California, Berkeley, 1989-1990.

Research/Teaching Assistant, Statistics Department, University of California, Berkeley, 1990-1996.

Research Assistant, Reproductive Epidemiology Section, California Department of Health Services, 1993-1996.

Research Assistant, Institute for Toxicology and Environmental Health, Endocrine Laboratory, University of California, Davis, 1993-1996.

Postdoctoral Research Fellow, Biostatistics/Epidemiology, Harvard School of Public Health, Boston, MA, 1996-1999.

Visiting Research Fellow, Department of Applied Math, University of Ghent, Belgium, July-Sept 1998.

Assistant Professor, Department of Biostatistics, University of Washington, Seattle, WA, 1999-2002.

Affiliate Investigator, Division of Public Health Sciences, Fred Hutchinson Cancer Research Center, Seattle, WA, 2000-2002.

Assistant Professor In-Residence, Department of Biostatistics, UCLA School of Public Health, Los Angeles, CA, 2002-2004.

Affiliate Assistant Professor, Department of Biostatistics, University of Washington, Seattle, WA, 2002-2004.

Associate Professor, Division of Biostatistics, Department of Health Services Research Management and Policy (2004-2006), Department of Epidemiology and Biostatistics, College of Public Health and Health Professions, University of Florida, Gainesville, FL 32610. (2006-2010). Tenure granted in 2009.

Interim Program Director of Biostatistics, Department of Epidemiology and Biostatistics, College of Public Health and Health Professions, University of Florida, Gainesville, FL 32610. 2009-2010.

Associate Professor with tenure, Department of Biostatistics, College of Public Health and Health Professions and College of Medicine, University of Florida, Gainesville, FL 32610. 2010-2013. Director of Graduate Studies, 2012-2013.

Professor and Associate Chair for Education, Department of Biostatistics, College of Public Health and Health Professions and College of Medicine, University of Florida, Gainesville, FL 32610. 2013-present.

### **Honors and Awards:**

Rodman Scholar, University of Virginia, 1985-1988.

Chairperson's Prize for Best Student, Electrical Engineering Department, University of Virginia, 1988.

AT&T Bell Laboratories Graduate Research Program for Women: Grant Recipient, 1989-1995.

Outstanding Graduate Student Instructor, Department of Statistics, University of California, Berkeley, 1996.

NIH Postdoctoral Research Fellowship, Harvard University School of Public Health, 1996-1999.

Delta Omega, Honorary Society in Public Health, Beta Upsilon Chapter. Inducted April 30, 2015.

### **Memberships:**

International Biometrics Society, American Statistical Association.

**Service to the Profession:**

Organizer, Invited Session on Functional Data Analysis, Joint Statistical Meetings, Indianapolis, IN, August 2000.

Member, Data Safety and Monitoring Board, for a Proprietary Clinical Trial conducted by Bastyr University, Bothell, WA, 2001-2002.

Organizer, Invited Session on Observational Data Analysis: Causal Inference and Bias Modeling, 2003 WNAR/IMS Meetings, Golden, CO.

Consultant, North American Naturopathic Medical Research Agenda, 2002-2004.

Ad hoc reviewer. NIH Clinical and Integrative Cardiovascular Sciences (CICS) Study Section. 2/8/07-2/9/07, 10/11/07-10/12/07, 6/05/08-6/06/08, 10/16/08-10/17/08, 10/15/09-10/16/09, 6/17/10-6/18/10.

Ad hoc reviewer. NIH Health Services Organization and Delivery (HSOD) Study Section. 2/7/08-2/8/08; 6/11/13; 9/28-9/29/15, 2/22-2/23/16, 2/21-2/22/17, 6/26-6/27/17

Ad hoc reviewer. NIH Biology and Diseases of the Posterior Eye (BDPE) Study Section 1/11/11.

Ad hoc reviewer. NIH Cardiovascular Differentiation and Development Study Section 2/12/2009-2/13/2009.

Member. CDC COTPER (Coordinating Office on Terrorism Preparedness and Emergency Response) RFA Special Emphasis Panel. 7/9/08-7/11/08.

Member. NIH NHLBI RFA: Centers for Behavioral Intervention Development to Reduce Obesity, Study Section. 6/1/09-6/2/09.

Member. NIH RFA: Methods for Comparative Effectiveness, Study Section 7/9/10.

Ad hoc reviewer. NIH Special Emphasis Panel: Member Conflict, Epidemiology (ZRG1 PSE-K). 3/15/11-3/16/11.

Member. Scientific Advisory Group for the Florida Center for Medicaid and the Uninsured. 2007-2014.

Member. COPSS Elizabeth Scott Award Selection Committee of the American Statistical Association. September 2007-2010.

Expert Witness. Howrey, 525 Market Street, San Francisco, CA 94105. Sept 2007-Dec 2007. \$15,000 contract paid to the UF Florida Clinical Practice Account.

Member, NIH Clinical and Integrative Cardiovascular Sciences (CICS) Study Section. July 1, 2011-June 30, 2015.

Organizer, Topic Contributed Session on Analysis of Complex Survey Data in Epidemiology, Joint Statistical Meetings, San Diego, CA, August 2012.

Organizer, Invited Session on Complex Survey Methodology and Application, ENAR 2013, Orlando, FL.

Member, ENAR 2013 Program Committee

Ad Hoc Reviewer, NSF Methodology, Measurement, and Statistics. April 2013, April 2014, April 2015, October 2015.

Treasurer/Secretary, Florida Chapter of the American Statistical Association, 2013-2014.

President, Florida Chapter of the American Statistical Association, 2015-2016.

Chair-Elect, Chair, and Past-Chair, Statistics in Epidemiology Section of the American Statistical Association, 2014-2016.

Committee Member, Institute of Medicine, 2015.

Member, NSF Advisory Panel for the Methodology, Measurement, and Statistics Program, 2016-2017.

Chair, NIH Special Emphasis Panel, ZRG1 HDM-G 05 R, Biostatistical Methods and Research Design Study Section. March 6, 2017.

Associate Editor, *Biometrics*. July 2007-June 2009.

Statistical Editor, *Psychosomatic Medicine*. April 2008-2012.

Referee for: *Biometrics*, *Journal of the American Statistical Association*, *Biostatistics*, *Statistics in Medicine*, *Journal of the Royal Statistical Society Series B*, *Biometrika*, *Annals of Statistics*, *Journal of Computational and Graphical Statistics*, *Computational Statistics and Data Analysis*, *Journal of Multivariate Analysis*, *Sociological Methodology*, *Lifetime Data Analysis*, *American Journal of Epidemiology*, *International Journal of Epidemiology*, *Statistical Science*, *Biometrical Journal*, *BMC Psychiatry*, *Statistics and Probability Letters*, *Communications in Statistics -- Theory and Methods*, *Circulation*, *Epidemiology*, *Communications in Statistics – Simulation and Computation*, *Journal of Machine Learning Research*.

### Book Chapters:

\*denotes graduate student under my supervision

**Brumback BA**, Brumback LC, and Lindstrom MJ (2009). Penalized Spline Models for Longitudinal Data. In *Longitudinal Data Analysis*, eds. Fitzmaurice G, Davidian M, Verbeke G, and Molenberghs G, pp 291-316. Boca Raton: Chapman and Hall.

**Brumback BA** (2010). Biostatistics. In *Public Health Concepts*, eds Andresen EA and Bouldin ED, pp139-159. San Francisco: John Wiley & Sons.

**Brumback BA**, London WB (2013). Causal Inference in Cancer Clinical Trials. In *Modern Clinical Trial Analysis*, eds Tang W, Tu X, pp 203-225. New York: Springer.

Helian S\*, **Brumback BA**, Freeman MC, Rheingans R (2016). Structural Nested Models for Cluster-Randomized Trials. In *Statistical Causal Inferences and Their Applications in Public Health Research*, eds. He H, Wu P, Chen DG, pp 169-186. Springer International Publishing Switzerland.

### Published Articles:

\*denotes graduate student under my supervision

1. Jahns J and **Brumback BA**, (1990). "Integrated-optical split-and-shift module based on planar optics," *Optics Communications* 76:318-320.

2. Jahns J and **Brumback BA**, (1991). "Advances in the computer aided design of planarized free-space optical circuits: system simulation," *Proceedings of the International Society for Optical Engineering* 1555:2-7.

3. Waller K, Reim J, Fenster L, Swan S, **Brumback BA**, Windham G, Lasley B, Ettinger B and Marcus R, (1996). "Bone mass and subtle abnormalities in ovulatory function in healthy women," *J Clin Endocrinol Metab* 81:663-8.

4. **Brumback BA** and Rice JA, (1998). "Smoothing spline models for the analysis of nested and crossed samples of curves (with discussion)," *Journal of the American Statistical Association*, 93:961-94.

5. **Brumback BA**, Holmes L and Ryan LM, (1999). "Adverse effects of chorionic villus sampling: a meta-analysis," *Statistics in Medicine*, 18:2163-2175.

6. **Brumback BA**, (1999). Comment on "Robust principal component analysis for functional data," by Locantore N, Marron JS, Simpson DG, Tripoli N, Zhang JT, and Cohen KL, *Test*, 8:36-41.

7. **Brumback BA**, Ruppert D, and Wand MP, (1999). Comment on "Variable selection and function estimation in additive nonparametric regression using a data-based prior," by Shively TS, Kohn R, and Wood S, *Journal of the American Statistical Association*, 94:794-797.

8. Robins JM, Hernan MA, and **Brumback BA**, (2000). "Marginal structural models and causal inference in epidemiology," *Epidemiology*, 11:550-560.

9. Hernan MA, **Brumback BA**, and Robins JM, (2000). "Use of marginal structural models to estimate the effect of prophylaxis therapy for pneumocystis carinii pneumonia on the survival of AIDS patients," *Epidemiology*, 11:561-570.

10. **Brumback BA**, Cook RJ, and Ryan LM, (2000). “A meta-analysis of case-control and cohort studies with interval-censored exposure data: application to chorionic villus sampling,” *Biostatistics*, 1: 203-217.
11. **Brumback BA**, Ryan LM, Schwartz J, Neas L, Stark P, and Burge H, (2000). “Transitional regression models, with application to environmental time series,” *Journal of the American Statistical Association*, 95: 16-27.
12. Cook RJ, **Brumback BA**, Wigg MB, and Ryan LM, (2001). “Synthesis of evidence from epidemiological studies with interval censored exposure due to grouping,” *Biometrics*, 57: 671-680.
13. Hernan MA, **Brumback BA**, and Robins JM, (2001). “Marginal structural models to estimate the joint causal effect of non-randomized treatments,” *Journal of the American Statistical Association*, 96:440-448.
14. Hernan MA, **Brumback BA**, and Robins JM, (2002). “Estimating the causal effect of zidovudine on CD4 count with a marginal structural model for repeated measures,” *Statistics in Medicine*, 21:1689-1709.
15. Greenland S and **Brumback BA** (2002). “An overview of relations among causal modeling methods,” *International Journal of Epidemiology*, 31: 1030-1037.
16. Madeleine MM, **Brumback BA**, Cushing-Haugen KL, Schwartz SM, Daling JR, Smith AG, Nelson JL, Porter P, Shera KA, McDougall JK, and Galloway DA, (2002). “Human Leukocyte Antigen Class II and Cervical Cancer Risk: A Population-Based Study”. *Journal of Infectious Diseases*, 186, 1565-1574.
17. **Brumback BA**, Greenland S, Redman M\*, Kiviat N, and Diehr P, (2003). “The intensity-score approach to adjusting for confounding,” *Biometrics*, 59: 274-285.
18. **Brumback BA**, Hernan MA, Haneuse S\*, and Robins JM, (2004). “Sensitivity analyses for unmeasured confounding assuming a marginal structural model for repeated measures.” *Statistics in Medicine*, 23:749-767.
19. Standish LJ, Fitzpatrick AL, Berger J, Kim JG, Sanders F, Polissar N, **Brumback B**, and Calabrese C, (2004). “Mind-body therapies and quality of life in HIV-1+ individuals,” *International Journal of Naturopathic Medicine*, 1(1):23-31.
20. Milburn NG, Rotheram-Borus MJ, Batterham P, **Brumback B**, Rosenthal D, and Mallett S, (2005). “Predictors of close family relationships over one year among homeless young people.” *Journal of Adolescence*, 28: 263-275.
21. **Brumback BA** and Brumback LC (2005). Comment on “Semiparametric Estimation of a Treatment Effect in a Pretest-Posttest Study with Missing Data,” by Davidian M, Tsiatis A, and Leon S, *Statistical Science*, 20: 284-289.
22. Yang Q, Kiernan CM, Tian Y, Salwen HR, Chlenski A, **Brumback BA**, London WB, and Cohn SL, (2007). “Methylation of *CASP8*, *DCR2*, and *HIN-1* in Neuroblastoma is Associated with Poor Outcome.” *Clinical Cancer Research*, 13: 3191-3197.

23. **Brumback BA** and Berg A (2008). "On Effect-measure Modification: Relationships Among Changes in the Relative Risk, Odds Ratio, and Risk Difference." *Statistics in Medicine*, 27: 3453-3465.
24. Janicke DM, Sallinen BJ, Perri MG, Lutes L, Silverstein JH, Huerta M, and **Brumback BA** (2008). "Comparison of Parent-Only versus Family-Based Interventions for Overweight Children in Underserved Rural Settings: Outcomes from Project STORY." *Archives of Pediatric and Adolescent Medicine*, 162: 1119-1125.
25. **Brumback BA**, Winner LH, Casella G, Ghosh M, Hall A, Zhang J, Chorba L, and Duncan P (2008). "Estimating a Weighted Average of Stratum-specific Parameters." *Statistics in Medicine*, 27: 4972-4991
26. Hassan M, Li Q, **Brumback B**, Lucey DG, Bestland M, Eubanks G, Fillingim RB, and Sheps DS (2008). "Comparison of Peripheral Arterial Response to Mental Stress in Men versus Women with Coronary Artery Disease." *American Journal of Cardiology*, 102: 970-974.
27. DeFries EL, McGuire LC, Andresen EM, **Brumback BA**, and Anderson LA (2009). "Caregivers of Older Adults with Cognitive Impairment." *Preventing Chronic Disease*, 6(2).
28. Joo Y, **Brumback B**, Lee K, Yun S, Kim K, Joo C (2009). "Clustering of Temporal Profiles Using a Bayesian Logistic Mixture Model: Analyzing Groundwater Level Data to Understand the Characteristics of Urban Groundwater Recharge." *JABES*, 14: 356-373.
29. **Brumback BA** (2009). "A Note on Using the Estimated Versus the Known Propensity Score to Estimate the Average Treatment Effect." *Statistics and Probability Letters*, 79: 537-542.
30. Freedland KE, De Geus EJC, Golden RN, Kop W, Miller GE, Vaccarino V, **Brumback B**, Llabre MM, and Sheps DS (2009). "What's in a name?" *Psychosomatic Medicine*, 71: 1-4.
31. Ried LD, **Brumback BA**, Bengston MA, Garman PM, and Hsu C (2009). "Glucose Dysregulation Among Veterans Living with Schizophrenia-Related Disorders After Switching Second-Generation Antipsychotics." *Journal of the American Pharmacists Association*, 49: 223-231.
32. Janicke DM, Sallinen, BJ, Perri MG, Lutes LD, Silverstein JH, **Brumback BA** (2009). "Comparison of Program Costs for Parent-Only and Family-Based Interventions for Pediatric Obesity in Medically Underserved Rural Settings." *Journal of Rural Health*, 25: 326-330.
33. Classen S, Winter SM, Velozo C, Bedard M, Lanford D, **Brumback B**, and Lutz B. (2009). "Item Development and Validity Testing for a Safe Driving Behavior Measure." *American Journal of Occupational Therapy*, 64(2): 296-305.
34. Hassan M, Mela A, Li Q, **Brumback B**, Fillingim R, Conti J, Sheps D (2009). "The Effect of Acute Psychological Stress on QT Dispersion in Patients with Coronary Artery Disease." *Pacing and Clinical Electrophysiology*, 32: 1178-1183.

35. **Brumback BA** (2010). "On the Built-In Restrictions in Linear Mixed Models, with Application to Smoothing Spline Analysis of Variance." *Communications in Statistics – Theory and Methods*, 39: 579-591.
36. **Brumback BA**, Dailey AB, He Z\*, Brumback LC, and Livingston MD (2010). "Efforts to Adjust for Confounding by Neighborhood Using Complex Survey Data." *Statistics in Medicine*, 29(18): 1890-1899.
37. London WB, Frantz CN, Campbell LA, Seeger RC, **Brumback BA**, Cohn SL, Matthey KK, Castleberry RP, Diller L (2010). "Phase II Randomized Comparison of Topotecan plus Cyclophosphamide vs. Topotecan Alone in Children with Recurrent or Refractory Neuroblastoma: A Children's Oncology Group Study." *Journal of Clinical Oncology*, 28(24): 3808-3815.
38. **Brumback BA**, Bouldin ED, Zheng HW\*, Cannell MB, Andresen EM (2010). "Testing and Estimating Model-Adjusted Effect-Measure Modification Using Marginal Structural Models and Complex Survey Data." *American Journal of Epidemiology*, 172(9): 1085-91.
39. **Brumback BA**, Dailey AB, Brumback LC, Livingston MD, He Z\* (2010). "Adjusting for Confounding by Cluster Using Generalized Linear Mixed Models." *Statistics and Probability Letters*, 80: 1650-1654.
40. Janicke DM, Lim CS, Perri MG, Mathews A, Bobroff L, Silverstein JH, **Brumback B**, Dumont-Driscoll M (2010). "Extension Family Lifestyle Intervention Project (E-FLIP for Kids): Design and Methods." *Contemporary Clinical Trials*, 32: 50-58.
41. Cook RL, Zhang J, Mullins J, Kauf T, **Brumback B**, Steingraber H, Mallison C (2010). "Factors Associated with Initiation and Completion of Human Papillomavirus Vaccine Series Among Young Women Enrolled in Medicaid." *Journal of Adolescent Health*, 49(6): 596-599.
42. Cannell MB, **Brumback BA**, Bouldin ED, Hess J, Wood DL, Sloyer PJ, Reiss JG, Andresen EM (2010). "Age group differences in health care access for people with disabilities: Are young adults at increased risk? Results from the 2007 Florida Behavioral Risk Factor Surveillance System." *Journal of Adolescent Health*, 49(2): 219-221.
43. Winter SM, Classen S, Bedard M, Lutz B, Velozo CA, Lanford DN, **Brumback B** (2011). "Focus group findings for a self-report Safe Driving Behavior Measure." *Canadian Journal of Occupational Therapy*, 78(2): 72-79.
44. **Brumback BA**, He Z\* (2011). "Adjusting for Confounding by Neighborhood with Complex Survey Data." *Statistics in Medicine*, 30:965-972.
45. Classen S, Wen P, Velozo C, Bédard M, Winter SM, **Brumback B**, Lanford DN (2012). "Rater Reliability and Rater Effects of the Safe Driving Behavior Measure." *American Journal of Occupational Therapy*, 66(1):69-77.



46. **Brumback BA**, He Z\* (2011). “The Mantel-Haenszel Estimator Adapted for Complex Survey Designs is Not Dually Consistent.” *Statistics and Probability Letters*, 81(9): 1465-1470.
47. Dailey AB, **Brumback BA**, Livingston MD, Jones BA, Curbow BA, Xu X (2011). “Area-level socioeconomic position and repeat mammography screening use: results from 2005 National Health Interview Survey.” *Cancer Epidemiology, Biomarkers, and Prevention*, 20(11): 2331-2344.
48. Classen S, Wen P, Velozo C, Bédard M, Winter SM, **Brumback B** Lanford DN (2012). “Psychometrics of the Self-Report Safe Driving Behavior Measure for Older Adults.” *American Journal of Occupational Therapy*, 66: 233-241.
49. He Z\*, **Brumback BA** (2012). “An Equivalence of Conditional and Unconditional Maximum Likelihood Estimators via Infinite Replication of Observations.” *Communications in Statistics – Theory and Methods*, in press.
50. **Brumback BA**, Dailey AB, Zheng HW\* (2012). “Adjusting for Confounding by Neighborhood Using a Proportional Odds Model and Complex Survey Data.” *American Journal of Epidemiology*, 175(11): 1133-1141.
51. Freeman MC, Greene LE, Dreibelbis R, Saboori S, Muga R, **Brumback B**, Rheingans R (2012). “Assessing the impact of a school-based water treatment, hygiene and sanitation programme on pupil absence in Nyanza Province, Kenya: a cluster-randomized trial.” *Tropical Medicine and International Health*, 17(3): 380-391.
52. Price CC, Mitchel S, **Brumback B**, Tanner J, Schmalfuss I, Lamar M, Giovannetti T, Heilman KM, Libon DJ (2012). “MRI-Leukoariosis Thresholds and the Phenotypic Expression of Dementia.” *Neurology*, 79(8): 734-740.
53. Gerhard T, Delaney JAC, Shuster J, **Brumback B**, Johnson JA, Pepine C, Winterstein AG (2012). Estimating effects of antihypertensive therapy on adverse cardiovascular outcomes in the presence of time-dependent confounding by blood pressure.” *BMC Medical Research Methodology*, 12: 119.
54. Zheng HW\*, **Brumback BA**, Lu X, Bouldin ED, Cannell MB, Andresen EM (2013). “Doubly Robust Testing and Estimation of Model-Adjusted Effect-Measure Modification with Complex Survey Data.” *Statistics in Medicine*, 32: 673-684.
55. **Brumback BA**, Cai Z\*, He Z\*, Zheng HW\*, Dailey AB (2013). “Conditional Pseudolikelihood Methods for Clustered Ordinal, Multinomial, or Count Outcomes with Complex Survey Data.” *Statistics in Medicine*, 32(8):1325-1335.
56. **Brumback BA**, Zheng HW\*, Dailey AB (2013). “Adjusting for Confounding by Neighborhood Using Generalized Linear Mixed Models and Complex Survey Data.” *Statistics in Medicine*, 32(8): 1313-1324.

57. Janicke DM, Lim CS, Mathews AE, Shellnut K, Boggs SR, Silverstein JH, **Brumback BA** (2013). "The Community-based Healthy-lifestyle Intervention for Rural Preschools (CHIRP) Study: Design and Methods." *Contemporary Clinical Trials*, 34(2):187-195.
58. Classen S, **Brumback B**, Monahan M, Malaty II, Rodriguez RL, Okun MS, McFarland NR. (2014). "Driving errors in parkinson's disease: Moving closer to predicting on-road outcomes." *American Journal of Occupational Therapy*, 68:77-85.
59. Freeman MC, Classen T, Dreibelbis R, Saboori S, Greene LE, **Brumback B**, Muga R, Rheingans R. (2014). "The impact of a school-based water supply and treatment, hygiene, and sanitation programme on pupil diarrhea: A cluster randomized trial." *Epidemiology and Infection*, 142: 340-351.
60. **Brumback BA**, He Z\*, Prasad M\*, Freeman MC, Rheingans R. (2014). "Using structural nested models to estimate the effect of cluster-level adherence on individual-level outcomes with a three-armed cluster-randomized trial." *Statistics in Medicine*, 33(9): 1490-1502.
61. Alam MT, Weppelmann TA, Weber CD, Johnson JA, Rashid MH, Birch CS, **Brumback BA**, Beau de Rochars VEM, Morris JG, Ali A. (2014). "Monitoring of Water Sources for Environmental Reservoirs of Toxigenic *Vibrio cholerae* O1, Haiti." *Emerging Infectious Diseases*, 20(3): 356-363
62. **Brumback BA**, Cai Z, Dailey AB (2014). "Methods of estimating or accounting for neighborhood associations with health using complex survey data." *American Journal of Epidemiology*, 179(10):1255-63.
63. Bergstrand K, Mayer B, **Brumback B**, Zhang Y (2015). "Assessing the relationship between social vulnerability and community resilience to hazards." *Social Indicators Research*, 122:391-409.
64. Bumsoo A, Beaver T, Martin T, Hess P, **Brumback BA**, Ahmed S, Smith BK, Leeuwenburgh C, Martin AD, Ferreira LF. (2014). "Phrenic nerve stimulation increases human diaphragm fiber force after cardiothoracic surgery." *American Journal of Respiratory and Critical Care Medicine*, 190(7): 837-839.
65. Garn J, Caruso B, Drews-Botsch CD, Kramer M, **Brumback B**, Rheingans R, Freeman M. (2014). "Factors associated with pupil toilet use in Kenyan primary schools." *International Journal of Environmental Research and Public Health*, 11(9): 9694-711.
66. Cai Z\*, **Brumback BA**. (2015). "Model-based standardization to adjust for unmeasured cluster-level confounders with complex survey data." *Statistics in Medicine*, 34(15): 2368-2380.
67. Price CC, Tanner JJ, Schmalfuss IM, **Brumback B**, Heilman KM, Libon DJ (2015). "Dissociating statistically-determined Alzheimer/Vascular Dementia neuropsychological syndromes using white and gray neuroradiological parameters." *Journal of Alzheimer's Disease*, 48: 833-847.

68. Cook RL, Kelso NE, **Brumback BA**, Chen X (2016). “Analytic strategies to evaluate the association of time-varying exposures to HIV-related outcomes: Alcohol consumption as an example.” *Current HIV Research*, 14: 85-92
69. Price CC, Tanner J, Nguyen PT, Schwab NA, Mitchell S, Slonena E, **Brumback B**, Okun MS, Mareci TH, Bowers D (2016). “Gray and White Matter Contributions to Cognitive Frontostriatal Deficits in Non-Demented Parkinson’s Disease.” *PLOS One*, 11(1): e0147332 DOI 10.1371/journal.pone.0147332
70. Li L\*, **Brumback BA**, Weppelmann T, Morris J, Afsar A (2016). “Adjusting for Unmeasured Confounding Due to Either of Two Crossed Factors with a Logistic Regression Model.” *Statistics in Medicine*, 35: 3179-3188.
71. Garn JV\*, **Brumback BA**, Drews-Botsch CD, Lash TL, Kramer MR, Freeman MC (2016). “Estimating the effect of school water, sanitation, and hygiene (WaSH) improvements on pupil health outcomes.” *Epidemiology*, 2016 Sep 27: 752-760
72. **Brumback BA**, Li L\*, Cai Z\*. (2017). “On the use of between-within models to adjust for confounding due to unmeasured cluster covariates.” *Communications in Statistics – Simulation and Computation*, 46(5): 3841-3854.
73. Mathias B, Delmas AL, Ozrazgat-Baslanti T, Vanzant EL, Szpila BE, Mohr AM, Moore FA, Brakenridge SC, **Brumback BA**, Moldawer LL, Efron PA, and the Sepsis Critical Illness Research Center Investigators (2017). “Human Myeloid-derived Suppressor Cells are Associated with Chronic Immune Suppression After Severe Sepsis/Septic Shock.” *Annals of Surgery*, 265: 827-834.
74. Helian S\*, **Brumback BA**, Cook, RL (2017). “Sparse Canonical Correlation Analysis Between an Alcohol Biomarker and Self-reported Alcohol Consumption.” *Communications in Statistics – Simulation and Computation*, in press. Available online: <http://dx.doi.org/10.1080/03610918.2016.1255971>.
75. Corbett DB, Wanigatunga AA, Valiani V, Handberg EM, Buford T, **Brumback B**, Casanova R, Janelle CM, Manini TM (2017). “Metabolic Costs of Daily Activity in Older Adults (Chores XL) Study: Design and Methods.” *Contemporary Clinical Trials Communications*, 6: 1-8.
76. Crowley SJ, Huang H, Tanner JJ, Zho Q, Schwab NA, Hizel LP, Ramon D, **Brumback B**, Ding M, Price CC (2017). “Considering Total Intracranial Volume and Other Nuisance Variables in Brain Voxel Based Morphometry in Idiopathic PD.” *Brain Imaging and Behavior*, DOI: 10.1186/s12884-016-1190-7.
77. Grattan LM, **Brumback B**, Roberts SM, Buckingham-Howes S, Toben AC, Morris G (2017). “‘Bouncing Back’ after the Deepwater Horizon Oil Spill.” *Disaster Prevention and Management*, 26: 122-133.

78. Wen X, Hartzema A, Delaney JA, **Brumback B**, Liu Xuefeng, Egerman R, Roth J, Segal R, Meador KJ (2017). "Combining Adverse Pregnancy and Perinatal Outcomes for Women Exposed to Antiepileptic Drugs during Pregnancy, Using a Latent Trait Model." *BMC Pregnancy and Childbirth*, 17:10, pp1-11. DOI: 10.1186/s12884-016-1190-7.
79. Winterstein A, Staley B, Henriksen C, Xu D, Lipori G, Jeon N, Choi Y, Li Y, Castillo JH, Soria-Saucedo R, **Brumback B**, Johns T (2017). "Development and validation of a Complexity-Score to rank hospitalized patients at risk for preventable adverse drug events." *American Journal of Health-System Pharmacy*, in press.
80. Mira JC, Cuschieri J, Ozrazgat-Baslanti T, Wang Z, Ghita GL, Loftus TJ, Stortz JA, Raymond SL, Lanz JD, Hennessy LV, **Brumback B**, Efron PA, Baker HV, Moore FA, Maier RV, Moldawer LL, Brakenridge SC (2017). "The epidemiology of chronic critical illness after severe traumatic injury at two-level one trauma centers." *Critical Care Medicine*, in press.
81. Loftus T, Mira J, Ozrazgat-Baslanti T, Ghita G, Wang Z, Stortz J, **Brumback B**, Bihorac A, Segal M, Anton S, Leeuwenburgh C, Mohr A, Efron P, Moldawer L, Moore F, Brakenridge S (2017). "Sepsis and Critical Illness Research Center Investigators: protocols and standard operating procedures for a prospective cohort study of sepsis in critically ill surgical patients." *BMJ Open*, in press.
82. Cook R, Zhou Z, Kelso-Chichetto N, Janelle J, Morano J, Somboonwit C, Carter W, Ibanez G, Ennis N, Cook C, Cohen R, **Brumback B**, Bryant K (2017). "Alcohol consumption patterns and HIV viral suppression among persons receiving HIV care in Florida: an observational study." *Addiction Science & Clinical Practice*, in press.
83. Khandelwal N, Brumback LC, Halpern SD, Coe NB, **Brumback B**, Curtis JR (2017). "Evaluating the economic impact of palliative and end-of-life care interventions on ICU utilization and costs from the hospital and healthcare system perspective." *Journal of Palliative Medicine*, in press.
84. Hall AG, Schumacher JR, **Brumback B**, Harman JS, Lutz BJ, Hendry P, Carden D (2017). "Health-Related Quality of Life among Older Patients Following an Emergency Department Visit and ED-to-Home Coaching Intervention: A Randomized Controlled Trial." *International Journal of Care Coordination*, in press.
85. Stortz JA, Murphy TJ, Raymond SL, MiraJC, Ungaro R, Dirain ML, Nacionales DC, Loftus TJ, Wang Z, Ozrazgat-Baslanti T, Ghita GL, **Brumback BA**, Mohr AM, Bihorac A, Efron PA, Moldawer LL, Moore FA, Brakenridge SC (2017). "Evidence for Persistent Immune Suppression in Patients Who Develop Chronic Critical Illness After Sepsis." *Shock*, in press.
86. Jeon N, Staley B, Johns T, Lipori GP, **Brumback B**, Richard S, Winterstein AG (2017). "Identifying and characterizing preventable adverse drug events for prioritizing pharmacist intervention in hospitals." *Am J Heal Pharm* 74(21): 1774-1783.

87. Wang Y, Chen X, Hahn J, **Brumback B**, Zhou Z, Miguez M, Cook R (2017). “Phosphatidylethanol (PEth) in comparison to self-reported alcohol consumption among HIV-infected women in a randomized controlled trial of naltrexone for reducing hazardous drinking.” *Alcoholism: Clinical & Experimental Research*, in press.

### Miscellanea:

**Brumback BA**, (1996). “Statistical Methods for Hormone Data,” Ph.D. Thesis, Department of Statistics, University of California, Berkeley.

**Brumback BA**, (2003). “Transitional Regression Models, with Application to Environmental Time Series,” Proceedings of the 54<sup>th</sup> Session of the International Statistical Institute: Berlin, Germany.

### Grants and Contracts:

“Biostatistics Core of the Center for AIDS Research,” P.I.: King Holmes, Agency: NIH/NIAID. Type: 5 P30 AI27757, Period: 2/1/00-8/1/00. **Co-Investigator**.

“Observational Methods in Complementary and Alternative Medicine and HIV/AIDS,” P.I.: Carlo Calabrese, Agency: NIH/NCCAM. Type: 1 RO1 AT00251-01, Period: 5/08/00-3/31/02. Subcontract from Bastyr University, **Co-Investigator**.

“Statistical Issues in AIDS Research,” P.I.: Tom Fleming, Agency NIH/NIAID. Type: 2 R37 AI29168, Period: 8/1/00-8/31/02. **Co-Investigator**.

“HPV: Biology, Clinical Significance and Epidemiology,” P.I.: James K. McDougall, Agency: NIH/NCI. Type: 2 PO1 CA 42792-14, Period: 6/01/00-8/31/02. Subcontract from Fred Hutchinson Cancer Research Center. **Director, Biostatistics Core**.

“Biostatistical Methods for STD Cohort Data Subject to Time-dependent Confounding and Dropout,” P.I.: Babette A. Brumback, Agency: Center for AIDS and STDs, University of Washington, New Investigator Award 62-4773. Period: 1/01/01-8/31/02. **Principal Investigator**.

“Project i,” P.I.: Norweeta Milburn, Agency: NIH/NIMH. Type: R01 MH61185, Period: 9/02-9/04. **Co-Investigator**.

“Partners in Care for Children,” P.I. Bonnie Zima, Agency: NIH/NIMH. Type: R01 MH61540, Period: 9/02-9/04. **Co-Investigator**.

“Center for HIV Identification, Prevention, and Treatment,” P.I. Mary Jane Rotheram-Borus, Agency: NIH/NIMH. Type: Center MH58107, Period: 9/02-9/03. **Associate Director, Methods Core**.

“Nutrition Friendly School Certification Process Pilot Study,” P.I. Charlotte Neumann, Agency: DHHS/CDC. Type: CCRR921581, Period: 9/02-9/05. **Co-Investigator**.

“Children’s Oncology Group: Statistics and Data Center,” P.I. Mini Devidas, Agency: NIH/NCI. Type U10CA098413, Period 6/05-3/06. **Co-Investigator**.

“Health Status of Florida,” P.I. Betsy Shenkman, Agency: AHCA, Contract # 41289. Period 3/1/06-6/30/06. **Co-Investigator.**

“Evaluating Medicaid Reform in Florida,” P.I. Paul Duncan, Agency: US Department of Health and Human Services” Type MED027, Period 6/1/2006-6/30-2010. **Co-Investigator.**

“Development of State Capacity for Conduct Caregiver Surveillance,” P.I. Elena Andresen, Agency: CDC. Type UOF-40-09-01-2006, Period 9/06-9/07. **Co-Investigator.**

“Caregivers of Persons with Cognitive Impairment,” P.I. Elena Andresen, Agency CDC. Type 200-2006-M-18187, Period 9/06-9/07. **Co-Investigator.**

“Sensible Treatment of Obesity in Rural Youth,” P.I. David Janicke, Agency NIH. Type R34 DK071555, Period 9/15/05-8/31/07. **Co-Investigator.**

“Florida Disability and Health Project,” P.I. Elena Andresen, Agency CDC. Type U59 DD000273, Period 7/01/07-3/31/12. **Co-Investigator.**

“Psychological Stress and Risk of Cardiac Events,” P.I. David Sheps, Agency NIH. Type 5 R01 HL 070265-04, Period 9/01/07-5/31/09. **Co-Investigator.**

“Mindfulness Based Stress Reduction and Myocardial Ischemia,” P.I. David Sheps, Agency NIH. Type 5 R01 HL 072059-05, Period 9/01/07-4/30/08. **Co-Investigator.**

“Survey of Medicaid Beneficiaries in Broward and Duval Counties,” P.I. Paul Duncan, Agency: Kaiser. Period: 7/1/07-6/30/08. **Co-Investigator.**

"Neighborhood and Mammography: A Multilevel Approach to Cancer Screening Behavior," P.I. Amy Dailey, Agency Centers for Disease Control and Prevention. Type K01 DP001121, Period 9/30/07 - 9/29/10. **Co-Investigator.**

“Medicaid and HPV Infection in Florida,” P.I. Robert Cook, Agency: Merck. Type GM0291 33496, Period 1/1/08-12/31/09. **Co-Investigator.**

“Community Participation in Developing a Measure for Safe Older Driver Behaviors,” P.I. Sherrilene Classen, Agency NIH-NIA. Type 1 R21 AG 031717-01, Period 5/01/2008-4/30/2010. **Co-Investigator.**

“Pharmacotherapy to reduce hazardous drinking in HIV-infected women,” P.I. Robert Cook, agency NIH. Type 1R01AA018934-01, Period 10/01/09-9/31/11. **Co-Investigator.**

“Extension Family Lifestyle Intervention Project,” P.I. David Janicke, agency NIDDK. Type 1 R18 DK082374-01A1, Period 08/01/2009-07/31/2014. **Co-Investigator.**

“The Role of Visual Attention in the Driving Safety of Parkinson’s Disease Patients,” P.I. Sherillene Classen, agency National Parkinson Foundation, Period 06/01/2010-06/30/2012. **Co-Investigator.**

“Inspiratory Muscle Strength Training in Ventilator Dependent Patients,” P.I. Anatole Martin, agency Florida Department of Health 09KW-07, Period 01/01/2009-12/31/2011. **Co-Investigator.**

“MRE CAHPS IV Ongoing Assessment of Enrollee Satisfaction,” P.I. Paul Duncan, agency Florida Agency for Health Care Administration MED114, Period 04/26/2010-08/31/2010. **Co-Investigator.**

“Assist with the Statewide Health Information Technology Environmental Scan Commissioned by AHCA,” P.I. Babette Brumback, agency WellFlorida Council, Period 06/15/2010-10/31/2010. **Principal Investigator**

“National Trends in the Prevalence of Thrombocytopenia among Hepatitis C Patients: 1999-2008,” P.I. Teresa Kauf, agency GlaxoSmithKline, Inc., Type GH0-11-3564, Period 9/30/10-3/31/11. **Co-Investigator.**

“Sustaining and Scaling School Water, Sanitation, and Hygiene Plus Community Impacts (SWASH),” P.I. Rick Rheingans, agency Emory University S467462 (subcontract to a Gates-funded project), Period 07/01/10-08/31/11. **Co-Investigator.**

“Impact of BRG1 Loss in Lung Cancer Development,” P.I. David Reisman, agency NIH/NCI. Type R01 CA127636, Period 7/1/2010-7/31/2013. **Co-Investigator.**

“Adjusting for Unmeasured Confounding Due to Cluster with Complex Sampling Designs,” P.I. Babette Brumback, agencies NSF; USDA/National Agricultural Statistics; Department of Education/National Center for Educational Statistics; Social Security Administration; Department of Agriculture/Economic Research Service. Type NSF SES-1115618, Period 9/15/2011-8/31/2014. **Principal Investigator.**

“Health Impact of Deepwater Horizon Spill in Eastern Gulf Coast Communities,” P.I. Glenn Morris, agency NIH/NIEHS. Type U19-ES020683, Period 6/27/2011-4/30/2016. **Co-Investigator.**

“Florida Disability and Health Project: Module F,” P.I. Babette Brumback, agency CDC. Type U59-DD000273, Period 8/5/11-3/31/12. **Principal Investigator.**

“Pharmacotherapy for alcohol consumption in HIV-infected women: randomized trial.” P.I. Robert Cook, agency NIH. Type U01 AA0207, Period 9/25/2011-8/31-2016. **Co-Investigator.**

“CAHPS V,” P.I. Paul Duncan, agency Florida Agency for Health Care Administration. Type MED 139, Period 5/22/2012-11/30/2014. **Co-Investigator.**

“Community-based Health-lifestyle Intervention for Rural Preschoolers (The CHIRP Study),” P.I. David Janicke, agency NIH. Type NIH R21 DK095269, Period 7/1/12-6/30/14. **Co-Investigator.**

“Southern HIV Alcohol Research Consortium (SHARC) Admin and Research Support Core,” P.I. Robert Cook, agency NIH. Type U24 AA 022002, Period 09/25/2012-08/31/2017. **Co-Investigator**

“Development and validation of a complexity score to identify hospitalized patients at high risk for preventable adverse drug events,” P.I. Almut Winterstein, agency American Society for Health-Systems Pharmacy Research Foundation. Period 06/01/2013-05/31/2015. **Co-Investigator.**

“White Matter Connectivity and PD Cognitive Phenotypes,” P.I. Cate Price, agency NIH. Type R01 NS082386, Period 09/25/2013-08/31/2018. **Co-Investigator.**

“Metabolic Costs of Daily Activity in Older Adults,” P.I. Todd Manini, agency NIH. Type R01 AG042525, Period 07/15/2013-06/30/2018. **Co-Investigator.**

“An Emergency Department-to-Home Intervention to Improve Quality of Life and Reduce Hospital Use,” P.I. Donna Sadasivan, agency PCORI. Type HIS-1306-01451, Period 4/1/2014-3/31/2017. **Co-Investigator.**

“PICS: A New Horizon For Surgical Critical Care,” P.I. Frederick Moore, agency NIH. Type P50GM111152-01, Period 9/1/2014-8/31/2019. **PI of Data Management and Biostatistics Core.**

“Understanding Antibiotic Resistance Occurrence and Development of Mitigation Strategies in Cattle,” P.I. Kwang Cheol Jeong, agency US Department of Agriculture. Type F001-05-2015-68003-22972, Period 2/15/2015-2/14/2018. **Co-Investigator.**

“An Interactive Patient-Centered Consent For Research Using Medical Records,” P.I. Moseley, agency NIH. Type R01 HD086700, Period 9/17/15-8/31/18. **Co-Investigator.**

“Southeastern and Coastal Center for Agricultural Safety and Health (SEC-CAGSH),” P.I. Morris, agency CDC NIOSH. Type UF PRO00003085, Period 9/1/16-8/31/21, **Co-Investigator.**

“Behavioral Science and Biostatistics Resource Core for Alcohol-HIV Research,” P.I. Kahler, agency NIH. Type U24 AA022003, Period 9/1/16-8/31/21, **Co-Investigator.**

#### **Invited Presentations:**

**“Smoothing spline models for the analysis of nested and crossed samples of curves”:** January 1996, Department of Statistics, University of California, Los Angeles; February 1996, Department of Statistics, University of Georgia, Athens; February 1996, Department of Mathematics and Statistics, Colby College, Waterville, ME; February 1996, Mathematics



Department, Swarthmore College, Pennsylvania; May 1996, Statistics Department, University of California, Berkeley; August 1996, Joint Statistical Meetings, Chicago, IL; September 1996, Biostatistics Department, Harvard School of Public Health, Boston, MA; October 1996, Statistics Department, AT&T Bell Laboratories, Murray Hill, NJ; October 1997, 50<sup>th</sup> Anniversary Conference on Statistics for Correlated Data, Iowa State University, Ames, Iowa; May 1997, Interface '97 Conference, Rice University, Houston, Texas; December 1997 Department of Applied Math, Boston University, MA; September 1998, Statistics Department, Carnegie Mellon University, Pittsburgh, PA; February 1999, Statistics Department, University of Pennsylvania; March 1999, ENAR, Atlanta, GA.

**“Statistical Issues in Endocrinology”:** May 1996, Institute for Toxicology and Environmental Health, University of California, Davis

**“Transitional Regression Models, with Application to Environmental Time Series”:** February 1998, Biostatistics Department, Harvard School of Public Health, Boston, MA. August 2003, 54<sup>th</sup> Session of the International Statistical Institute: Berlin, Germany.

**“From PROC GENMOD to Causal Inference via Marginal Structural Models”:** May 1998, Biostatistics Department, Harvard School of Public Health, Boston, MA; May 1998, Schering-Plough, NJ; August 1998, Department of Applied Math, University of Ghent, Belgium; August 1998, Center for Statistics, Limburgs Universitair Centrum, Diepenbeek, Belgium.

**“Matrix Sampling for Large-scale Observational Studies”:** December 1998, Biostatistics Department, Harvard School of Public Health.

**“Marginal Structural Models for Repeated Measures Data”:** January 1999, Department of Health Care Policy, Harvard School of Public Health; January 1999, Biostatistics Department, Johns Hopkins University; January 1999, Biostatistics Department, University of California, Los Angeles; February 1999, Biostatistics Department, Harvard School of Public Health; February 1999, Center for Epidemiology and Biostatistics, University of Pennsylvania; February 1999, Biostatistics Department, University of Michigan, Ann Arbor; February 1999, Biostatistics Department, University of Wisconsin, Madison; February 1999, Biostatistics Department, Columbia University, New York, NY; March 1999, Department of Health Studies, University of Chicago, IL; March 1999, Biostatistics Department, University of Washington, Seattle.

**“Roundtable on Functional Data Analysis”:** August 1999, Joint Statistical Meetings, Baltimore, MD.

**“Potential Outcomes, Confounding, and Conditional Independence”:** September 1999, Biostatistics Department, University of Washington, Seattle; October 1999, Program on Causal Interpretation and Identification of Conditional Independence Structures, Fields Institute, Toronto, Canada; October 1999, Department of Statistics and Actuarial Science, University of Waterloo, Canada.

**“A Meta-analysis of Case-control and Cohort Studies with Interval-censored Exposure Data: Application to Chorionic Villus Sampling”:** September 1999, Fred Hutchinson Cancer Research Center, Seattle, WA.

**“Perspectives on Causal Inference and Longitudinal Interventions”:** March 2000, Statistics Department, University of Missouri, Columbia; April 2000, Center for Statistics and the Social Sciences, University of Washington, Seattle.

**“The Intensity-Score Approach to Adjusting for Confounding”:** June 2001, Workshop on Causal Inference, University of Ghent, Belgium; August 2001, Causal Inference Conference, Snowbird, Utah; November 2001, Center for Statistics and the Social Sciences, University of Washington, Seattle. February 2002, RAND, Santa Monica, California; October 2002, Department of Biostatistics, University of California, Los Angeles; January 2003, Department of Biostatistics, UCSD joint with Department of Statistics, SDSU; February 2004, Department of Epidemiology, Johns Hopkins School of Public Health; May 2004, Departments of Biostatistics and Statistics, University of Florida, Gainesville August 2005, International Society for Clinical Biostatistics, Szeged, Hungary.

**“Exploring Co-factors of HPV in Progression to High Grade Cervical Dysplasia: Are Causal Models Helpful?”:** June 2001, Department of Applied Math, University of Ghent, Belgium.

**“A Causal Model for Effect-measure Modification by Treatment Indication”:** June 2002, Society for Epidemiologic Research, 35<sup>th</sup> Annual Meeting, Palm Desert, California. February 2003, Statistics Department, UCLA.

**“Estimating the Treatment Effect in A Randomized Pretest-Posttest Study with Missing Outcomes”:** University of Florida, Biostatistics Division, 2005; University of Colorado Health Sciences Center, Biometrics Division, 2005

**“The Analysis of Sequential Treatments: Practical Issues”:** October 2005, International Conference on Health Policy Research, Boston, MA.

**“On Effect-measure Modification: Relationships Among Changes in the Relative Risk, Odds Ratio, and Risk Difference”:** April 2008, Portland State University, Department of Mathematics and Statistics, Portland, Oregon. September 2008, George Washington University, Department of Statistics, Washington, D.C. September 2008, George Washington University, The Biostatistics Center, Rockville, MD.

**“Adjusting for Confounding by Neighborhood Using Complex Survey Data”:** September 2009, International Workshop on Causal Modelling, The Norwegian Academy of Science and Letters, Oslo, Norway.

**“Adjusting for unmeasured cluster-level confounding with complex survey data”:** June 2011, Meeting of the Western North American Region of the International Biometrics Society, San Luis Obispo, California. September 2011, University of Florida, Department of Biostatistics, Gainesville, FL.

**“Doubly Robust Testing and Estimation of Model-Adjusted Effect-Measure Modification with Complex Survey Data.”** October 2012, International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, North Carolina.

**“Pseudolikelihood and Generalized Linear Mixed Model Methods to Adjust for Confounding due to Cluster with Ordinal, Multinomial, or Nonnegative Outcomes and Complex Survey Data.”** October 2012, University of Florida, Department of Statistics, Gainesville, FL.

**“Adjusting for Confounding due to Cluster with Ordinal, Multinomial, or Nonnegative Outcomes and Complex Survey Data.”** February 2013, Florida ASA Chapter Meeting. University of West Florida, Pensacola, FL.

**“Using Structural-Nested Models to Estimate the Effect of Cluster-Level Adherence on Individual-Level Outcomes with a Three-Armed Cluster-Randomized Trial.”** February 2014, Florida ASA Chapter Meeting. University of Florida, Gainesville, FL. June 2014, The Fourth International Biostatistics Workshop of Jilin University. Changchun, China. May 2015, Atlantic Causal Inference Conference. University of Pennsylvania. Philadelphia, PA. February 2016, Biostatistics Department, Columbia University. December 2016, The 10<sup>th</sup> International Chinese Statistical Association International Conference, Shanghai Jiao Tong University, Shanghai, China.

**“Methods of Estimating or Accounting for Neighborhood Associations with Health Using Complex Survey Data.”** August 2015, Joint Statistical Meetings, Topic Contributed Session, Seattle, WA.

**“Adjusting for Unmeasured Confounding Due to Either of Two Crossed Factors with a Logistic Regression Model.”** July 2016, International Biometrics Society, China Region.

#### **Contributed Presentations:**

**“The Intensity-Score Approach to Adjusting for Confounding”:** June 2002, WNAR, University of California, Los Angeles.

**“Using Hierarchical Models to Estimate a Weighted Average of Stratum-Specific Parameters”:** March 2007, ENAR, Atlanta, GA.

**“On Effect-measure Modification: Relationships Among Changes in the Relative Risk, Odds Ratio, and Risk Difference”:** August 2008, Joint Statistical Meetings, Denver, CO.

**“Causal Inference in Cancer Clinical Trials”:** August 2009, Joint Statistical Meetings, Washington, DC.

**“Adjusting for Confounding by Neighborhood Using Complex Survey Data”:** August 2010, Joint Statistical Meetings, Vancouver, Canada.

**“Mantel-Haenszel Estimators for Complex Survey Data”:** August 2011, Joint Statistical Meetings, Miami, Florida.

**“Conditional Logistic Regression Estimators for Ordinal or Multinomial Outcomes and Complex Survey Data.”** August 2012, Joint Statistical Meetings, San Diego, CA.

**“Adjusting for Confounding due to Cluster with Ordinal, Multinomial, or Nonnegative Outcomes and Complex Survey Data.”** March 2013, ENAR, Orlando, FL.

**“Doubly Robust Testing and Estimation of Model-Adjusted Effect-Measure Modification with Complex Survey Data.”** August 2013, Joint Statistical Meetings, Montreal, Canada.

**“On the Use of Between-Within Models to Adjust for Confounding due to Unmeasured Cluster-Level Covariates.”** March 2015, ENAR, Miami, FL.

**“Using Structural-Nested Models to Estimate the Effect of Cluster-Level Adherence on Individual-Level Outcomes with a Three-Armed Cluster-Randomized Trial.”** August 2014, Joint Statistical Meetings, Boston, MA. Mar 2016, ENAR, Austin, TX.

### **Teaching:**

Teaching assistant, Electrical Engineering and Computer Science, University of California, Berkeley: Introduction to Electrical Engineering, Spring 1989.

Instructor, Electrical Engineering and Computer Science, University of California, Berkeley: Introduction to Electrical Engineering Laboratory, Fall 1989, Spring 1990.

Teaching assistant, Statistics Department, University of California, Berkeley.

Introduction to Statistics, Fall 1990, Spring 1991, Summer 1995.

Applied Statistics for first-year Ph.D. students, Fall 1992, Spring 1996.

Time Series Analysis, Spring 1994.

Multivariate Analysis, Fall 1994.

Introduction to Mathematical Statistics, Spring 1995.

Instructor, Statistics Department, University of California, Berkeley.

Introduction to Statistics for Business and Economics, Summer 1991.

Introduction to Statistics for Life and Social Sciences, Self-Paced, Spring 1992.

Introduction to Statistics for Life and Social Sciences, Summer 1994.

Instructor, Rolf Nevanlinna Institute, University of Helsinki, Finland.

A Short Course on Clinical Trials, September 1998.

Assistant Professor, Biostatistics Department, University of Washington.

Causal Inference, BIOST 578, Fall 1999.

Consulting, BIOST/STAT 590, Summer 2000.

Theory of Linear Models, BIOST/STAT 533, Spring 2001, 2002.

Biostatistics I, BIOST 514, Fall 2001.

Assistant Professor In-Residence, Biostatistics Department, UCLA.

Biostatistical Consulting, Biostat 402B, Winter 2003, 2004.

Advanced Seminar in Biostatistics, Biostat 245, Winter 2003.

Categorical Data Analysis, Biostat 200C, Spring 2003, 2004.

Associate Professor, Biostatistics, University of Florida.

Survey of Biostatistics, STA 6176, Spring 2005,2006.

Applied Survival Analysis, STA 6177, Fall 2005.

Statistical Methods in Social Research, STA 6126, Spring,Fall 2006.

Statistical Methods for Health Sciences 1, PHC 6050, Fall 2006,2007.

Epidemiology Methods II, PHC 6011, Summer A 2007, 2008, 2009, 2010.

Bias in Observational Research, PHC 6937, Spring 2009, 2010.

Spatial Epidemiology, PHC 6937, Fall 2009.

Biostat Methods I, PHC 6050C, Fall 2010, 2011.

Biostat Methods II, PHC 6051, Spring 2011, 2012

Professor, Biostatistics, University of Florida

Biostat Methods II, PHC 6051, Spring 2013, 2014, 2015, 2016, 2017.

### **Ph.D. Committees:**

Chair: Mary Redman (UW Biostatistics, 2004). Zhulin He (UF Biostatistics, 2012). Hao Zheng (UF Biostatistics, ABD). Zhuangyu Cai (UF Biostatistics, 2014), Li Li (UF Biostatistics, 2016), Shanjun Helian (UF Biostatistics, 2016), Gabriela Ghita (UF Biostatistics), Zhongkai Wang (UF Biostatistics).

Member: Michael Levitz (UW Statistics, graduated 2000); Ayesha Ali (UW Statistics, graduated 2002); Britta Neugaard (UF Health Services, graduated 2005); Keunbaik Lee (UF Statistics, graduated 2006), Euijung Ryu (UF Statistics, graduated 2007), Stephen Graham (UF Pharmacy HCA, graduated 2006), Jingbo Yu (UF Health Services, 2008), Adnan Sabuwala (UF Mathematics, 2008), Tezcan Ozrazgat (UF Statistics, 2011), Jinghua He (UF Pharmacy 2011), Wendy Yue Zhong (UF Health Services, 2012), Sheron Wen (UF Pharmacy, 2013). Caitlin Knox (UF Pharmacy, 2014). Stephen Bird (UF Pharmacy, 2014). Jinxiang Hu (UF Education, 2014). Emily Leary (UF School of Natural Resources and Environment, 2014), Danijela Stojanovic (UF Pharmacy 2015), Sharvari Bhagwat (UF Pharmacy, 2016), Xinrui Zhang (UF Biostatistics, 2016), YoonYoung Choi (UF Pharmacy), Nakyung Jeon (UF Pharmacy), Adel Alrwisan (UF Pharmacy), Yanmin Zhu (UF Pharmacy), Abdullah Alalwan (UF Pharmacy), Loren Hizel (UF Clinical and Health Psychology).

### **M.S. Committees:**

Chair: Fang Ashlee Hu (UCLA Biostatistics, graduated 2003), Seung Cheol Han (UF Statistics, 2008), Zhuangyu Cai (UF Biostatistics 2012), Yi Zhang (UF Biostatistics 2013). Wan Xu (UF Biostatistics 2014), Xinlei Mi (UF Biostatistics 2014), Bharath Reddy (UF Biostatistics 2014), Zhongkai Wang (UF Biostatistics 2016), Dan Chen (UF Biostatistics 2016).

Member: Becky Koperski (UW Biostatistics, graduated 2000), Kirstin Cartwright (UF Statistics 2005), Chelsea Ellis, Sergio Vasquez, Ashley Buckley (UF Statistics 2006), Gulver Karamemis (UF Statistics 2011), Si Chen (UF Biostatistics 2011), Amanda Richards (UF Biostatistics 2012), Christine Seleski (UF Biostatistics 2013), Xinrui Zhang (UF Biostatistics

2013), Justine Pierson (UF Biostatistics 2014). Qian Li (UF Biostatistics 2015). Yuqi Liang (UF Biostatistics 2015), Meng Shen (UF Biostatistics 2016), Huiyin Lu (UF Biostatistics 2017).

### **M.P.H. Committees:**

Chair: Yu Wang (UF Biostatistics, graduated 2006), Zhuangyu Cai (UF Biostatistics, 2009). John Friary (UF Biostatistics, 2010), Steven Smith (UF Biostatistics, 2011), Kathryn Ross Middleton (UF Biostatistics, 2012).

### **Advising:**

London Fairborn, Pamela Shaw (PhD students, UW Biostatistics)  
Dulcie Kermah, Thomas Dow, Juan Jia, Ning Kang (MPH, MS students, UCLA Biostatistics), Kathryn Ross (MPH UF Biostatistics), John Friary (MPH UF Biostatistics), Mark Bishop (MPH UF Biostatistics), Steven Smith (MPH UF Biostatistics), Yilun Sun (MS UF Biostatistics), Yang Li (PhD UF Biostatistics). 2012 onwards: Director of Graduate Study, UF Biostatistics.

### **University Service:**

Member, Educational Policy and Teaching Evaluation Committee, Department of Biostatistics, University of Washington, 1999-2002.

Member, Second-year Applied Exam Committee, Department of Biostatistics, University of Washington, 1999.

Member, Second-year Theory Exam Committee, Departments of Biostatistics and Statistics, University of Washington, 2001.

Member, Community and Alumnae Relations Committee, University of California, Los Angeles, 2002-2004.

Member, Operations Committee, UF PPHP Public Health Programs, 2004-2005.

Member, Biostatistics Academic Committee, UF, 2005-2006.

Member, Chair Evaluation Taskforce Committee, UF, 2006.

Member, Winter Workshop Committee, UF 2006.

Chair. Biostatistics Faculty Search Committee, UF 2006-07.

Member. Biostatistics Faculty Search Committee, UF 2007-08.

Member. Ad hoc CEPH Collaboration Task Force Committee, College of Public Health and Health Professions, UF 2008.

Member. Faculty Council, College of Public Health and Health Professions, UF 2008-2011.

Member. Curriculum Committee, College of Public Health and Health Professions, UF 2008-2012.

Member. Ad hoc Space Committee, College of Public Health and Health Professions, UF 2008.

Member. Collaboration Committee, College of Public Health and Health Professions, UF 2009.

Chair. Biostatistics Faculty Search Committee, UF 2009-2010.

Member. Biostatistics Faculty Search Committee, UF-Jacksonville 2009-2010.

Member. Biostatistics Department Chair Search Committee. UF 2010-2012.

Chair. Biostatistics Department Chair Search Committee. UF 2012-2013.

Chair. Biostatistics PhD Admissions Committee. UF 2009, 2010, 2011, 2012.

Chair. Biostatistics MS Admissions Committee. UF 2010, 2011, 2012.

Director of Graduate Studies, Biostatistics Department, UF 2012-present.

Associate Chair for Education, Biostatistics Department, UF 2013-present.

Chair. Biostatistics Search Committee. UF 2013-present.

Member. Informatics Search Committee. UF 2014-present.

Member. Pharmacoepidemiology Search Committee. UF 2014-present.

Chair. Biostatistics Curriculum Committee. UF 2013-2015.

Member. Faculty Senate, Representative of the College of Public Health and Health Professions, University of Florida, Fall 2011-2014.

Chair. PHHP Assistant Dean and MPH Program Director Search Committee, 2016.

Member. Tenure and Promotion Committee. College of Public Health and Health Profession and College of Medicine, University of Florida, 2015-present.