

Curriculum Vitae

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Education

AB	Applied Mathematics	Brown University (magna cum laude)	1991
ScD	Biostatistics	Harvard University	1995
	Thesis:	<i>Hierarchical Regression Models with Applications</i>	
	Minors:		
	Theoretical Statistics		
	Cancer Biology		

Academic Appointments

1995-1997	Visiting Assistant Professor Department of Statistics, Carnegie Mellon University — supported in part by Psychiatric Statistics Postdoctoral Fellowship
1997-2002	Assistant Professor Department of Statistics, Iowa State University
2002-2007	Associate Professor (with tenure) Department of Statistics, University of Florida
2005-2012	Executive Committee and Leader of Biostatistics, Data Management, and Methodology Core Institute on Aging, University of Florida
2006-2008	Chief of Division of Biostatistics Associate Professor (with tenure) Department of Epidemiology and Biostatistics Department of Statistics (joint appointment)
2007-2008	Professor Department of Epidemiology and Biostatistics
2007-2012	Professor Department of Statistics
2008-2009	Interim Chair, Department of Statistics
2009-2012	Chair, Department of Statistics
2012-	Professor, Section of Integrative Biology/Division of Statistics & Scientific Computation University of Texas at Austin
2014-	Professor and Chair, Department of Statistics & Data Sciences

GrantsNIH

- PI** : Covariance estimation in longitudinal cancer studies (NIH, R01), \$150,000, 2001-2004.
- co-PI : Analyzing complex longitudinal data in behavior science (NIH, R01), \$180,000 (direct costs: subcontract from Brown University, PI on subcontract), 2004-2008.
- PI** : Bayesian methods for longitudinal cancer data (NIH, R01), \$300,000 (direct costs), 2004-2009.
- co-PI (Leader of Biostatistics and Data Management Core): Claude D. Pepper Older Americans Independence Center (OAIC), \$600,000 /per year (direct costs). 2007-2012.
- Co-I: ACE inhibition and physical performance in aged rats (NIH R01), \$1.1 million (direct costs), 2005-2010.
- co-I: Rural Lifestyle Intervention Treatment Effectiveness Trial (Rural Lite), NIH, \$3.6 million (direct costs), 2008-2014.
- co-PI : CMS Nonpayment for Nosocomial Injury and Risk of Falls in Hospitals (NIH, R01), \$1.6 million, 2009-2012.
- co-I: Therapeutic strategies to augment muscle rehabilitation, (NIH, P01), \$6.7 million (direct costs), 2009-2012.
- co-I: Magnetic Resonance Imaging and Biomarkers for Muscular Dystrophy (NIH, R01), \$10.6 million, 2010-2015.
- PI**: Bayesian methods for (incomplete) longitudinal cancer data (NIH, R01), \$320,000 (direct costs), 2009-2015.
- co-PI: New Approaches to Mediation Analysis using Causal Inference Methods (NIH, RC1), \$95,000 (direct costs: subcontract from Brown University, PI on subcontract), 2009-2013.
- co-I: Rural Lifestyle Eating and Activity Program (Rural LEAP) (NIH, R18) (subcontract from University of Florida, PI on subcontract), 2013-2018.
- PI**: Bayesian methods for missingness and causality in cancer and behavior studies (NIH, R01), \$1.2 million (direct costs for entire period), 2014-2018.
- co-PI: Optimizing HIV treatment monitoring under resource constraints (NIH, R01), \$200,000 (total direct costs from subcontract from Brown University, PI on subcontract), 2014-2019.
- co-PI: Non-parametric Bayesian methods for causal inference (NIH, R01), \$615,000 (total direct costs from subcontract from UPENN, PI on subcontract), 2014-2018.
- PD**: Training program for inference on complex biological data (NIH, T32) \$1,038,000 (direct costs for the entire period), 2015-2020 (Pending).

NSF

- Co-PI : Development of Conditionally Specified Statistical Models for Analysis of Environmental Studies (NSF), \$300,000, 1998-2001.
- co-PI : Conference on Data mining and Bioinformatics (NSF), January 2004, \$17,500.
- PI**: Workshop on semiparametric methodology, NSF, 2008-2009, \$5,000.

Other

Co-PI : Spatial Statistics Research Applied to Ecological Resource Monitoring Programs (EPA, CR822919-01-0), 1997-1998.

Co-PI: Statistical Treatment of Class Evidence (FBI through Ames Lab), \$150,000 1998-1999.

PI : Improved estimation of correlations in longitudinal and spatial data (University Research Grant, Iowa State University), \$12,000, 1998-1999

Co-PI : Effect of Prenatal Stress on the Health and Well-Being of Swine (USDA), \$205,000, 2000-2003.

PI : Quantification of Animal Well Being, (USDA Cooperative Agreement), \$33,000, 2002-2007.

Awards and Honors

Member of Sigma Xi Scientific Honor Society, 1991-1994

National Institutes of Health Training Grant Recipient, 1991-92

Generalized Linear Models Conference Travel Award, 1994

Howard Hughes Medical Institute Predoctoral Fellowship in Biological Sciences, 1992-1995

Eastern North American Region of Biometrics Society Student Travel Award, 1995

National Research Service Award in Psychiatric Statistics (NIMH), 1995-1997

Fellow of the American Statistical association (elected 2007)

The Lagakos Distinguished Alumni Award, Department of Biostatistics, Harvard University, 2014.

co-Editor of *Biometrics*, 2015-2018.

Research Interests

Bayesian methodology, Bayesian biostatistics, Covariance structures, Hierarchical modelling, Longitudinal data models, Incomplete data models, Causal Inference, Spatial models

Applications in cancer, nutrition, health services, the environment, aging, infectious diseases, muscular dystrophy

Books

Daniels, M.J. and Hogan, J.W. (2008) Missing data in longitudinal studies: Strategies for Bayesian Modeling and Sensitivity Analysis. Chapman & Hall (CRC Press).

Book Chapters

Daniels M, Devlin B, Roeder K (1997) 'Of Genes and IQ' in *Intelligence, Genes, and Success: Scientists respond to "The Bell Curve"*, editors B Devlin, S Fienberg, D Resnick, and K Roeder, New York: Springer-Verlag.

Daniels, M.J. and Gaskins, J. (2012) 'Bayesian methods for the analysis of mixed categorical and continuous (incomplete) data' in *Analysis of Mixed Data*, editors K.C. Carriere and A. deLeon, Chapman & Hall (CRC Press).

- Daniels, M.J. and Hogan, J.W. (2014) 'Bayesian methods' in *Handbook of Missing Data Methodology*, editors G. Molenberghs, G. Fitzmaurice, M.G. Kenward, A.A. Tsiatis, G. Verbeke, Chapman & Hall (CRC Press).
- Hogan, J.W., Daniels, M.J., and Hu, L. (2014) 'Bayesian Sensitivity Analysis' in *Handbook of Missing Data Methodology*, editors G. Molenberghs, G. Fitzmaurice, M.G. Kenward, A.A. Tsiatis, G. Verbeke, Chapman & Hall (CRC Press).

Papers

Published (Refereed)

- Lenhard R, Daniels M, Oken M, Glick J, Ettinger D, Kalish L, O'Connell M (1994) An Aggressive High Dose Cyclophosphamide and Prednisone Regimen for Advanced Multiple Myeloma. *Leukemia and Lymphoma*. 13:485-489.
- Devlin B, Daniels M, Roeder K. (1997) Heritability of IQ. *Nature*. 388:468-471.
- Daniels M, Hughes M. (1997) Meta-Analysis for the evaluation of potential surrogate markers. *Statistics in Medicine*. 16:1965-1982.
- Daniels M, Gatsonis C. (1997) Hierarchical Polytomous Regression Models with Applications to Health Services Research. *Statistics in Medicine*. 16:2311-2325.
- Hughes MD, Daniels MJ, Fischl MA, Kim S, Schooley RT. (1998) CD4 cell count as a surrogate endpoint in HIV clinical trials: a meta-analysis of studies of the AIDS Clinical Trials Group. *AIDS*. 12:1823-1832.
- Daniels M, Kass R. (1998) A note on first stage approximation in two stage hierarchical models. *Sankhya, Series B*. 60:19-30.
- Daniels M, Gatsonis C. (1999) Hierarchical Generalized Linear Models in the Analysis of Variations in Health Care Utilization. *Journal of the American Statistical Association*. 94:29-42.
- Daniels M. (1999) A prior for the variance in hierarchical models. *Canadian Journal of Statistics*. 27:569-580.
- Lay, D.C., Jr., M.F. Haussman, H.S. Buchanan, and M.J. Daniels. (1999) Danger to piglets due to crushing can be reduced by the use of a simulated udder. *Journal of Animal Science*. 77:2060-2064.
- Cressie N, Kaiser M, Daniels M, Aldworth J, Lee J, Lahiri S, Cox L. (1999) Spatial analysis of particulate matter in an urban environment, In *geoENV II - Geostatistics for Environmental Applications: Proceedings of the Second European Conference on Geostatistics for Environmental Applications*, eds. J. Gomez-Hernandez, A. Soares, R. Froidevaux, 41-52.
- Daniels M, Kass R. (1999) Nonconjugate Bayesian estimation of covariance matrices in hierarchical models. *Journal of the American Statistical Association*, 94, 1254-1263.
- Lay D., Haussmann M, Daniels M. (2000) Hoop Housing for feeder pigs offers a welfare friendly environment compared to a non-bedded system. *Journal of Animal Welfare Science*, 3:33-48.
- Sidorenko, L.V., Li, X., Cocciolone, S.M., Chopra, S., Tagliani, L., Bowen, B., Daniels, M. and Peterson, T. (2000) Complex structure of a maize Myb gene promoter: functional analysis in transgenic plants. *The Plant Journal*, 22:1-14.

- Daniels M, Dominici F, Samet J., Zeger, S. (2000) Estimating particulate matter-mortality dose-response curves and threshold levels: An analysis of daily time series data for the 20 largest U.S. cities (with invited commentary). *American Journal of Epidemiology*, 152, 397-406.
- Hausmann, M.F., Carroll, J.A., Weesner, G.D., Daniels, M.J., Matteri, and Lay, D.C. Jr. (2000) Administration of ACTH to restrained, pregnant sows alters their pigs hypothalamic-pituitary-adrenal (HPA) axis. *Journal of Animal Science*, 78:2399-2411.
- HIV Surrogate Marker Collaborative Group (2000) Human Immunodeficiency Virus Type I RNA Level and CD4 Count as Prognostic Markers and Surrogate Endpoints: A Meta-Analysis. *AIDS Research and Human Retroviruses*, 16, 1123-1133.
- Daniels M, Hogan J. (2000) Reparameterizing the pattern mixture model for sensitivity analysis under informative dropout in longitudinal studies. *Biometrics*, 56, 1241-1249.
- Daniels M, Cressie N. (2001) A hierarchical approach to covariance function estimation for time series. *Journal of Time Series Analysis*, 22, 253-266.
- Daniels M, Lee Y-D, Kaiser M. (2001) Assessing sources of variability in measurement of ambient particulate matter. *Environmetrics*, 12, 547-558.
- Hellmich, R.L., Siegfried, B.D., Sears, M.K., Stanley-Horn, D.E., Daniels, M.J., Mattila, H.R., Spencer, T., Bidne, K.G., and Lewis, L.C. (2001) Monarch larvae sensitivity to *Bacillus thuringiensis* - purified proteins and pollen. *Proceedings of the National Academy of Sciences*, 98: 11925-11930.
- Carriquiry A., Daniels M. (2001) Adjusting for measurement error of a dietary risk factor in age-related maculopathy. *Bayesian Methods with Applications to Science, Policy, and Official Statistics: Selected Papers from ISBA 2000: The Sixth World Meeting of the International Society for Bayesian Analysis*.
- Daniels M.J., Kass R.E. (2001) Shrinkage estimators for covariance matrices. *Biometrics*, 57: 1173-1184.
- Daniels, M.J., and Carriquiry, A.L. (2001) Computing the posterior distribution of individual level usual intakes with application to disease models. *Research in Official Statistics*, 4: 67-79.
- Hogan J, Daniels M. (2002) A hierarchical modelling approach to analysing longitudinal measurements with dropout and non-compliance, with application to an equivalence trial in paediatric acquired immune deficiency syndrome. *Applied Statistics (JRSS-C)*, 51:1-21.
- Dominici, F., Daniels, M., Zeger S., Samet J. (2002) National models for estimating the effect of particulate matter on mortality in U.S. cities. *Journal of the American Statistical Association*, 97:100-111.
- Pourahmadi M, Daniels M. (2002) Dynamic conditionally linear mixed models. *Biometrics*, 58:225-231. PMID 11890319
- Daniels, M. Pourahmadi, M. (2002) Bayesian analysis of covariance matrices and dynamic models for longitudinal data. *Biometrika*, 89, 553-566.
- Kaiser, M., Daniels, M., Furakawa, K., Dixon, P. (2002) Analysis of particulate matter air pollution using markov random field models of spatial dependence. *Environmetrics*, 13, 615-628.
- Pogranichnyy, R.M., Yoon K-J., Harms, P.A., Sorden, S.D., Daniels M. (2002) Case-control study on association of porcine circovirus type 2 and other swine viruses in postweaning multisystemic wasting syndrome. *Journal of Veterinary Diagnostic Laboratory Investigation*, 14, 449-456.

- Daniels, M. and Zhao, Y. (2003) Modelling the random effects covariance matrix in longitudinal data. *Statistics in Medicine*, 22, 1631-1647.
- Sidorenko, L, Bruce W., Maddock, S., Tagliani, L., Li, X., Daniels, M., Peterson, T. (2003) Functional analysis of two matrix attachment region (MAR) elements in transgenic maize plants. *Transgenic Research*, 12, 137-154.
- Scharfstein D, Daniels M, Robins J. (2003) Incorporating prior beliefs about selection bias into the analysis of randomized trials with missing outcomes. *Biostatistics*, 4: 495-512. PMID 14557107
- Daniels, M.J., Dominici, F., Zeger, S. (2004) Underestimation of standard errors in multi site time series studies. *Epidemiology*, 15: 57-62.
- Daniels, M.J. (2005) Shrinkage priors for the dependence structure in longitudinal data. *Journal of Statistical Planning and Inference*, 127: 119-130.
- Dominici F., McDermott A., Daniels, M., Zeger S.L, Samet J.M. (2005) Revised analyses of the National Morbidity, Mortality, and Air Pollution Study: mortality among resident of 90 cities. *Journal of Toxicology and Environmental Health Part A.*, 68, 1071-1092.
- Daniels, M., Normand, S-L.(2006) Longitudinal profiling of health care units based on mixed multivariate patient outcomes. *Biostatistics*, 7, 1-15. PMID 15917373
- Krieger, J.W., Sitren, H.S., Daniels, M.J., Landkamp-Henken, B. (2006) Effects of variation in protein and carbohydrate intake on body mass and composition during energy restriction: a meta-analysis. *American Journal of Clinical Nutrition*, 83: 260-274.
- Daniels, M., Zhou, Z, and Zou, H. (2006) Conditionally specified space-time models for multivariate processes. *Journal of Computational and Graphical Statistics*, 15, 157-177.
- Botts, C., Daniels, M. (2006) A shrinkage estimator for the spectral densities. *Biometrika*, 93, 179-195.
- Daniels, M.J. (2006) Bayesian modelling of several covariance matrices and some results on the propriety of the posterior for linear regression with correlated and/or heterogeneous errors. *Journal of Multivariate Analysis*, 97, 1185-1207.
- Scharfstein, D.O., Halloran, M.E., Chu, H., and Daniels, M.J. (2006) On Estimation of Vaccine Efficacy Using Validation Samples with Selection Bias. *Biostatistics*, 7, 615-629. PMID 16556610
- Liu, X. and Daniels, M.J. (2006) A new algorithm for simulating a correlation matrix based on parameter expansion and re-parameterization. *Journal of Computational and Graphical Statistics*, 15, 897-914.
- Pourahmadi, M., Daniels M., Park, T. (2007) Simultaneous modelling of covariance matrices using the modified Choleski decomposition with applications. *Journal of Multivariate Analysis*, 98, 568-587.
- Ilk O., Daniels, M. (2007) Marginalized transition random effects models for multivariate longitudinal binary data. *Canadian Journal of Statistics*, 35, 105-123.
- Lee, K., Daniels, M.J. (2007) A class of Markov models for longitudinal ordinal data. *Biometrics*, 63, 1060-1067. PMC2766273.
- Feezor, R.J., Martin, T.D., Hess, P.J., Daniels, M.J., Beaver, T.M., Klodell, C.T., and Lee, W.A. (2008) Extent of aortic coverage and incidence of spinal cord ischemia after thoracic endovascular aneurysm repair. *Annals of Thoracic Surgery*, 86, 1809-1814. PMID 19021982

- Lay, D., Kattesh, H., Cunnick, J., Daniels, M.J., McMunn, K., Toscano, M. and Roberts, M. (2008) Prenatal stress on pig development and response to weaning. *Journal of Animal Science*, 86, 1316-1324.
- Roy, J. and Daniels, M.J. (2008) A General Class of Pattern Mixture Models for Nonignorable Dropout with Many Possible Dropout Times. *Biometrics*, 64, 538-545. PMC2791415
- Lee, K. and Daniels, M.J. (2008) Marginalized models for longitudinal ordinal data with application to quality of life studies. *Statistics in Medicine*, 27, 4359-4380. PMC2858760
- Botts, C. and Daniels, M.J. (2008) A flexible approach to Bayesian multiple curve fitting. *Computational Statistics and Data Analysis*, 52, 5100-5120. PMC2994020
- Perri, M.G., Limacher, M.C., Durning, P.E., Janicke, D.M., Lutes, L.D., Bobroff, L.B., Dale, M.S., Daniels, M.J., Radcliff, T.A., and Martin, A.D. (2008) Treatment of Obesity in Underserved Rural Settings (TOURS): A Randomized Trial of Extended-Care Programs for Weight Management in Women. *Archives of Internal Medicine*, 168, 2347-2354. PMID 19029500
- Judge, M.K., Zhang, J., Tumer, N., Carter, C., Daniels, M.J., and Scarpace, P.J. (2008) Prolonged hyperphagia with HF feeding contributes to exacerbated weight gain in rats with adult-onset obesity. *American Journal of Physiology - Regulatory, Integrative, and Comparative Physiology*, 295, R773-R780.
- Martin, D.J., Martin, T.D., Hess, P.J., Daniels, M.J., Feezor, R.J., and Lee, W.A.L. (2009) Spinal Cord Ischemia after TEVAR in Patients with Abdominal Aortic Aneurysms. *Journal of Vascular Surgery*, 49, 302-306. PMID 19028067
- Daniels, M.J. and Wang, C. (2009) Discussion of "Missing Data in longitudinal studies: A review" by Ibrahim and Molenberghs. *TEST*, 18, 51-58.
- Liu, X, Daniels, M., Marcus, B. (2009) Joint models for the association of a longitudinal binary and continuous process. *Journal of the American Statistical Association*, 104, 429-439. PMC2746699
- Daniels, M.J. and Pourahmadi, M. (2009) Modeling covariance matrices using partial autocorrelations. *Journal of Multivariate Analysis*, 100, 2352-2363. PMC2748961
- Carter, C.S., Leeuwenburgh, C., Daniels, M.J., and Foster, T.C. (2009) Influence of calorie restriction on measures of age-related cognitive decline: Role of increased physical activity. *Journal of Gerontology: Biological Sciences*, 64, 850-859.
- Lee, K., Daniels, M.J., and Sargent, D. (2010) Causal effects of treatments for informative missing data due to progression/death. *Journal of the American Statistical Association*, 105, 912-929. PMC3035160.
- Yang, Y., Halloran, M.E., Daniels, M.J., and Longini, I.M. (2010) Modeling competing infectious pathogens from a Bayesian perspective: Application to influenza studies with incomplete laboratory results. *Journal of the American Statistical Association*, 105, 1310-1322. PMC3070363.
- Wang, C., Daniels, M.J., Scharfstein, D.O., and Land, S. (2010) A Bayesian Shrinkage Model for Incomplete Longitudinal Binary Data with Application to the Breast Cancer Prevention Trial. *Journal of the American Statistical Association*, 105, 1333-1346. PMC3079242.
- Bruen, K.J., Feezor, R.J., Daniels, M.J., Beck, A.W., and Lee, W.A. (2011) Endovascular Chimney Technique versus Open Repair of Juxtarenal and Suprarenal Aneurysms. *Journal of Vascular Surgery*, 53, 895-905. PMID 21211934

- Wang, W., Scharfstein, D., Wang, C., Daniels, M., Needham, D., and Brower, R. (2011) Estimating the Causal Effect of Low Tidal Volume Ventilation on Survival in Patients with Acute Lung Injury. *Applied Statistics; JRSS-C*, 60, 475–496. PMC3197806
- Carter, C.S., Giovaninni, S., Seo1, D., Dupree, J., Morgan, D., Chung, H.Y., Lees, H., Daniels, M.J., Hubbard, G.B., Lee, S., Ikeno, Y., Marzetti, E. (2010) Differential effects of enalapril and losartan on body composition and indices of muscle quality in aged male Fischer 344x Brown Norway rats. *AGE (Journal of the American Aging Association)*, 33, 167–183. PMID 21153712
- Lay, D.C., Kattesh, H.G., Cunnick, J.E., Daniels, M.J., Kranendonk, G., McMunn, K.A., Toscano, M.J., and Roberts, M.P. (2011) Effect of prenatal stress on subsequent response to mixing stress and a lipopolysaccharide challenge in pigs. *Journal of Animal Science*, 89, 1787-1794.
- Anton, S.D., Manini, T., Milsom, V., Dubyak, P.J., Cesari, M., Cheng, J., Daniels, M.J., Marsiske, M., Pahor, M., Leeuwenburgh, C. and Perri, M.G. (2011) Effects of A Weight Loss Plus Exercise Program on Physical Functioning in Overweight, Older Women: A Randomized Controlled Trial. *Clinical Interventions in Aging*, 6, 141–149. PMID 21753869
- Wohlgemuth, S.E., Lees, H.A., Marzetti, E., Manini, T.M., Aranda, J.M., Daniels, M.J., Pahor, M., Perri, M.G., Leeuwenburgh, C., Anton, S.D. (2011) An exploratory analysis of the effects of a weight loss plus exercise program on cellular quality control mechanisms in older overweight women. *Rejuvenation Research*, 14, 315-324. PMID 21631380
- Lee, W.A., Daniels, M.J., Beaver, T.M., Klodell, C.T., Raghinaru, D.E., and Martin, T.D. (2011) Late outcomes of single center experience of 400 consecutive TEVAR. *Circulation*, 123, 2938–U67.
- Bobb, J.F., Scharfstein, D.O., Daniels, M.J., Collins, F.S., and Kelada, S. (2011) Multiple Imputation of Missing Phenotype Data for QTL Mapping. *Statistical Applications in Genetic and Molecular Biology*, 10, Article 29. PMC3404522
- Wang, C. and Daniels, M.J. (2011) A note on MAR, identifying restrictions, model comparison, and sensitivity analysis in pattern mixture models with and without covariates for incomplete data. *Biometrics*, 67, 810-818. PMC3136648
- Bhadra, D., Daniels, M.J., Kim, S., Ghosh, M., and Mukherjee, B. (2012) A Bayesian semiparametric approach for incorporating longitudinal information on exposure history for inference in case-control studies. *Biometrics*, 68, 361-370. PMC 3935236
- Daniels, M.J., Chatterjee, A., and Wang, C. (2012) Bayesian model selection for incomplete data using the posterior predictive distribution. *Biometrics*, 68, 1055-1063. PMCID 3890150
- Daniels, M.J., Roy, J., Kim, C., Hogan, J.W., and Perri, M.G. (2012) Bayesian inference for the causal effect of mediation. *Biometrics*, 68, 1028-1036. PMCID 3927554
- Bouldin, E.D., Andresen, E.M., Dunton, N.E., Simon, M., Waters, T.M., Liu, M., Daniels, M.J., Mion, L.C., and Shorr, R.I. (2012) Falls among adult patients hospitalized in the United States: Prevalence and Trends. To appear in *Journal of Patient Safety*.
- Radcliff, T.A., Bobroff, L.B., Lutes, L., Durning, P., Daniels, M.J., Limacher, M., Janicke, D.M. , Martin, D., and Perri, M.G. (2012) Comparing Costs of Extended Care Programs for the Management of Obesity in Rural Settings. *Journal of the Academy of Nutrition and Dietetics*, 112, 1363-1373. PMID 22818246
- Hall, D.J., Baz, M., Daniels, M.J., Staples, E.D., Klodell, C.T., Moldawer, L.L., Beaver, T.M. (2012) Immediate post-operative inflammatory response predicts long-term outcome in lung transplant recipients. To appear in *European Journal of Cardio-Thoracic Surgery*. PMID 22815323.

- Arpan, I., Forbes, S., Lott, D., Senesac, C., Daniels, M.J., Triplett, W., Deol, J., Sweeney, H., Walter, G., Vandenborne, K. (2012) T2 mapping provides multiple approaches to characterize muscle involvement in neuromuscular diseases: a cross-sectional study of lower leg muscles in 5-15 year old boys with Duchenne Muscular Dystrophy. To appear in *NMR in Biomedicine*.
- Shorr, R.I., Chandler, A.M., Mion, L.C., Waters, T.M., Liu, M., Daniels, M.J., Kessler, L.A., Miller, S.T. (2012) Effectiveness of bed alarm system to prevent falls in hospitalized patients: A pragmatic trial. *Annals of Internal Medicine*, 157: 692-699.
- Gaskins, J. and Daniels, M.J. (2013) A Nonparametric Prior for Simultaneous Covariance Estimation. *Biometrika*, 100, 125-138. PMC3852937
- Scali, S., Chang, C.K., Raghinaru, D., Daniels, M.J., Beck, A.W., Feezor, R.J., Berceci, S.A., and Huber, T.S. (2013) Prediction of Graft Patency and Mortality after Distal Revascularization and Interval Ligation for Hemodialysis Access Related Hand Ischemia. To appear in *Journal of Vascular Surgery*.
- Ye, F., Baligand, C., Keener, J.E., Vohra, R., Lim, W., Ruhella, A., Bose, P., Daniels, M., Walter, G.A., Thompson, F., Vandenborne, K. (2013) Hindlimb muscle morphology and function in a new atrophy model combining spinal cord injury and cast immobilization. To appear in *Journal of Neurotrauma*.
- Li, N., Daniels, M.J., Li, G. and Elashoff, R. (2013) An Exploration of Fixed and Random Effects Selection for Longitudinal Binary Outcomes in the Presence of Non-ignorable Dropout. *Biometrical Journal*, 55, 17-137. PMC3855104
- Rossen, L.M., Milsom, V.A., Middleton, K.R., Daniels, M.J., and Perri, M.G. (2013) Benefits and Risks of Weight-loss Treatment for Older, Obese Women. *Clinical Interventions in Aging*, 8, 157-166.
- Wang, Y. and Daniels, M.J. (2013) Bayesian modeling of the dependence in longitudinal data via partial autocorrelations and marginal variances. *Journal of Multivariate Analysis*, 116, 130-140.. PMC3640593
- Lee, K., Daniels, M.J., and Joo, Y. (2013) Flexible marginalized models for bivariate longitudinal ordinal data. *Biostatistics*, 14, 462-476. PMC3677737
- Manini, T.M., Buford, T.W., Lott, D., Vandenborne, K., Daniels, M.J., Knaggs, J., Patel, H., Pahor, M., Perri, M.G., and Anton, S.D. (2012) Effect of dietary restriction and exercise on lower extremity tissue compartments in obese older women: A pilot study. To appear in *Journal of Gerontology: Medical Sciences*.
- Nackers, L.M, Middleton, K.R., Dubyak, P.J., Daniels, M.J., Anton, S., Daniels, M.J., and Perri, M.G. (2012) Effects of prescribing 1000 versus 1500 kilocalories per day in the behavioral treatment of obesity: A randomized trial. To appear in *Obesity*.
- Lee, K. and Daniels, M.J. (2013) Causal Inference for Bivariate Longitudinal Quality of Life Data in Presence of Death Using Global Odds Ratios. *Statistics in Medicine*, 32, 4275-4284. PMC3935993
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- Gaskins, J., Daniels, M.J., and Marcus, B. (2014) Sparsity inducing prior distributions for correlation matrices of longitudinal data. *Journal of Computational and Graphical Statistics*, 23, 966-984. PMC 4217169
- Daniels, M.J., Wang, C. and Marcus, B. (2014) Fully Bayesian inference under ignorable missingness in the presence of auxiliary covariates. *Biometrics*, 70, 62-72. PMC 4007313
- Das, K. and Daniels, M.J. (2014) A semiparametric approach to simultaneous covariance estimation for bivariate sparse longitudinal data. *Biometrics*, 70, 33-43. PMC 3954444
- Li, T., Hutfless, S., Scharfstein, D.O., Daniels, M.J., Hogan, J.W., Little, R.J.A., Roy, J.A., Law, A.H., and Dickersin, K. (2014) Standards should be applied in the prevention and handling of missing data in patient-centered outcomes research: a systematic review and expert consensus. *Journal of Clinical Epidemiology*, 67, 15-32.
- Aggarwal, A., Ferrari, G., Joyce, E., Daniels, M., Sainger, R., Gorman, J.H., Gorman, G., Sacks, M.S. (2014) Architectural Trends in the Human Normal and Bicuspid Aortic Valve Leaflet and its Relevance to Valve Disease. To appear in *Annals of Biomedical Engineering*.
- Wang, Y. and Daniels, M.J. (2014) Computationally efficient banding of large covariance matrices for ordered data and connections to banding the inverse Cholesky factor. *Journal of Multivariate Analysis*, 130, 21-26. PMC 4136395
- Arpan, I, Willcocks, R.J, Forbes, S.C, Finkel, R.S, Lott, D.J, Rooney, W.D, Triplett, W.T, Senesac, C, Daniels, M.J, Byrne, B.J, Finanger, E.L, Russman, B.S, Wang, D.J, Tennekoon, G.I, Walter, G.A, Sweeney, H.L, Vandeborne, K. (2014) Examination of Effects of Corticosteroids on Skeletal Muscles of Boys with DMD using MRI and MRS. To appear in *Neurology*.
- Perri, M.G., Limacher, M.C., von Castel-Roberts, K., Daniels, M.J., Durning, P.E., Janicke, D.M., Bobroff, L.B., Radcliff, T.A., Milsom, V.A., Kim, C. and Martin, A.D. (2014) Comparative Effectiveness of Three Doses of Behavioral Weight Loss Counseling: Two-Year Findings from the Rural LITE Trial. To appear in *Obesity*.
- Waters, T.M., Daniels, M.J., Bazzoli, G.J., Perencevich, E., Dunton, N., Staggs, V.S., Potter, C., Fareed, N., Liu, M., Shorr, R.I. (2015) Impact of Medicare Nonpayment for Hospital Acquired Conditions: Lessons for Future Policy? To appear in *JAMA Internal Medicine*.
- Forbes, S.C., Willcocks, R.J., Triplett W.T., Rooney, W.D., Lott, D.J. Wang, D.J., Pollaro, J., Senesac, C.R., Daniels, M.J., Finkel, R.S., Russman, B.S., Byrne, B.J., Finanger, E.L., Tennekoon, G.I., Walter, G.A., Sweeney, H.L., Vandeborne, K. (2014) Magnetic Resonance Imaging and Spectroscopy Assessment of Lower Extremity Skeletal Muscles in Boys with Duchenne Muscular Dystrophy: A Multicenter Cross Sectional Study. *PLOS One*.
- Linero, A. and Daniels, M.J. (2015) A flexible Bayesian approach to monotone missing data in longitudinal studies with informative missingness with application to an acute schizophrenia clinical trial. To appear in *Journal of the American Statistical Association*.
- Su, L. and Daniels, M.J. (2015) Bayesian modeling of the covariance structure for irregular longitudinal data using the partial autocorrelation function. *Statistics in Medicine*, 34, 2004-2018.

Gaskins, J., and Daniels, M.J. (2015) Covariance Partition Priors: A Bayesian Approach to Simultaneous Covariance Estimation. To appear in *Journal of Computational and Graphical Statistics*.

Josefsson, M., de Luna, X., Daniels, M.J., and Nyberg, L. (2015) Causal inference with longitudinal outcomes and non-ignorable dropout: Estimating the effect of living alone on cognitive decline. To appear in *Journal of the Royal Statistical Society: Series C*.

Liu, M., Daniels, M.J., and Perri, M.G. (2015) Quantile Regression in the Presence of Monotone Missingness with Sensitivity Analysis. To appear in *Biostatistics*.

Submitted

Kim, C., Daniels, M.J., Roy, J., and Marcus, B. (2014) Longitudinal causal mediation analysis for behavioral trials. Submitted.

Rebecca Willcocks, Sean C Forbes, William T Triplett, Ishu Arpan, Celine Baligand, Donovan J Lott, Claudia R Senesac, Michael J Daniels, William D Rooney, Glenn A Walter, Lee Sweeney, Krista Vandendorpe (2014). Response to "Global T2 versus water T2 in NMR imaging of fatty infiltrated muscles: Different methodology, different information, and different implications". Submitted.

Gaskins, J., Daniels, M.J., and Marcus, B. (2014) Bayesian methods for non-ignorable dropout in joint models in smoking cessation studies. Under revision.

Shearrer, G.E., O'Reilly, G.A., Belcher, B.R., Daniels, M.J., Goran, M.I., Spruijt-Metz, D., Davis, J. (2015) The impact of sugar sweetened beverage intake on hunger and satiety in minority adolescents. Submitted.

Peer Reviewed

Daniels, M, Dominici F, Samet J., Zeger, S. (2004) The National Morbidity-Mortality, and Air Pollution Study Part III: Concentration Response Curves and Thresholds for the 20 Largest U.S. Cities, The Health Effects Institute, Cambridge, MA.

Dominici F., McDermott A. Daniels, M. Samet J.M. Zeger S.L. (2004) A Report to the Health Effects Institute on Reanalyses of the NMMAPS Database, The Health Effects Institute, Cambridge, MA.

Daniels M, Dominici F, Samet J., Zeger, S. (2001) Reply to the letter of Tobias and Saez re: "Estimating particulate matter-mortality dose-response curves and threshold levels: An analysis of daily time series data for the 20 largest U.S. cities." *American Journal of Epidemiology*, 153, 1027-1028.

Published (Non-Refereed)

Daniels M. (1998) Computing posterior distributions for covariance matrices in *Computing Science and Statistics, Volume 30, Proceedings of the 30th Symposium on the Interface*, editor S. Weisberg, p. 192-196.

Daniels, M., Carriquiry A. (1999) Dietary assessment and estimation of intake densities. In: Paulino, C.D., Pacheco, A., and Ferreira da Cunha, A.P. (eds.) *Afirmar a Estatística: Um Desafio para o Século XXI*, Sociedade Portuguesa de Estatística, Lisboa, Portugal.

- Daniels, M., Zhang, Y, Erdman, M., Harris IT. (2001) Experience with the Danish Mix-ELISA in the United States. *Proceedings of the 4th International Symposium on the Epidemiology and Control of Salmonella and other food-borne pathogens in Pork (Salinpork 2001)*, ed. PJ van der Wolf, 492-495.
- Daniels, MJ, Zhang, Y., Erdmann, M., Harris, IT (2002) Estimating the accuracy of the DME in the U.S. *Proceedings of the 17th International Pig Veterinary Society (IPVS) Congress*, Ames, Iowa, June 2-5, 2002, p. 243.
- Daniels, MJ (2003) Review of “Contemporary Statistical Models for the Plant and Soil Sciences” for *Journal of the American Statistical Association*, 98, 1080-1082.

Teaching Experience

1991-95	Teaching Fellow in Biostatistics Harvard School of Public Health, Boston, MA — Introduction to Statistical Methods — Statistical Inference I — Regression and Analysis of Variance — Discrete Multivariate Analysis
95F	Statistics for Engineering and the Physical Sciences (Undergraduate)
96S	Engineering Statistics and Quality Control (Undergraduate)
96F	Intermediate Probability (Core course for Statistics graduate students)
97S	Continuous Multivariate Analysis (Graduate course)
97F	Statistical Methods for Research Workers
98S	Design of Experiments
98F,00F	Statistical Methods (Core course for Statistics graduate students)
99F, 01F	Methods in Biostatistics (introduced and developed this course)
99S,00S, 01S	Introduction to Statistics (Introductory Undergraduate course)
02S	Theory of Probability and Statistics I (Undergraduate)
'03S,04S	Introduction to Biostatistics (MPH course)
'03F	Survival Analysis (Undergraduate)
'03F,'10F	Survival Analysis (MS elective)
'04F,07S	Analysis of spatial data (MS elective)
'05F, '07F, '09F, '11F	Analysis of Longitudinal data (PhD elective)
'06S, '09S	Generalized linear models (PhD core course)
'13S	Bayesian methods (MS elective)
'13F	Statistical Modeling (PhD elective)

Short Courses

- Statistical Methods in Forensic Science (with Carriquiry and Stern)
 - Federal Bureau of Investigation, Washington D.C., May 2000
- Hierarchical Models in Health Services and Outcomes Research (with Gatsonis)
 - Statistics and Health Conference, Edmonton, June 2000
 - National Center for Health Statistics, Bethesda, August 2000
 - Joint Statistical Meetings, Indianapolis, August 2000
 - Centers for Disease Control, Atlanta, September, 2002
- Workshop on Quantitative Tools for Risk Assessment (one of several presenters)
 - Iowa State University Agroterrorism Council, Ames, May 2002
- Missing Data in Longitudinal Studies: Strategies for Bayesian Modeling and Sensitivity Analysis (with Hogan)
 - Joint Statistical Meetings, Salt Lake City, July 2007
 - Centers for Disease Control, Atlanta, August 2007
 - Deming Conference on Applied Statistics, Atlantic City, December 2007
 - ENAR, Crystal City, March 2008
 - Joint Statistical Meetings, Washington, D.C., August 2009 (without Hogan)
 - Bayesian Biostatistics 2010, Houston, January 2010
 - Philadelphia Chapter of ASA, Philadelphia, May 2010
 - Milwaukee Chapter of ASA, Milwaukee, May 2010
- Missing Data in Longitudinal Studies: Strategies for Bayesian Modeling, Sensitivity Analysis, and Causal Inference
 - Australian Statistical Society, Adelaide, June 2011
 - Australian Statistical Society, Brisbane, July 2011
 - Erasmus MC, Rotterdam (Netherlands), October 2011
 - Universidad de Chile, Santiago (Chile), January 2012
- Bayesian methods in public health
 - Universidad de Chile, Santiago (Chile), January 2012

PresentationsInvited

- ‘Hierarchical Generalized Linear Models,’ Department of Statistics, University of Georgia, 1995.
- ‘Hierarchical Generalized Linear Models,’ Department of Statistics, State University of New York - Buffalo, 1995.
- ‘Hierarchical Generalized Linear Models,’ Department of Statistics, Carnegie Mellon University, 1995.
- ‘Hierarchical Generalized Linear Models,’ Department of Statistics, Brown University, 1995.
- ‘Hierarchical Generalized Linear Models,’ Division of Biostatistics, Indiana University, 1995.
- ‘Hierarchical Polytomous Regression Models for Health Services Research,’ International Health Care Policy Conference, Boston, 1995.
- ‘Hierarchical Polytomous Regression Models for Health Services Research,’ ENAR Spring Meetings, Richmond, 1996.
- ‘Hierarchical Regression Models for Health Services Research,’ Health Services Research Seminar Series, Center for Research on Health Care, University of Pittsburgh, 1996.

- ‘Nonconjugate Bayesian estimation of covariance matrices,’ Department of Statistics, Iowa State University, 1997.
- ‘Nonconjugate Bayesian estimation of covariance matrices,’ Department of Statistics, University of Georgia, 1997.
- ‘Nonconjugate Bayesian estimation of covariance matrices,’ Department of Biostatistics, University of Pennsylvania, 1997.
- ‘Nonconjugate Bayesian estimation of covariance matrices,’ Department of Health Studies, University of Chicago, 1997.
- ‘Nonconjugate Bayesian estimation of covariance matrices,’ Department of Biostatistics, University of Rochester, 1997.
- ‘Nonconjugate Bayesian estimation of covariance matrices,’ RAND, 1997.
- ‘Nonconjugate Bayesian estimation of covariance matrices,’ International Conference on combinatorics, information theory and statistics, Portland, 1997.
- ‘What’s wrong with *The Bell Curve*’, Joint Statistical Meetings, Anaheim, 1997.
- ‘Nonconjugate Bayesian estimation of covariance matrices,’ Seminar, Department of Statistics and Econometrics, University of Chicago Business School, October 1997.
- ‘Meta-Analysis for the Evaluation of Potential Surrogate Markers’, Department of Statistics, Iowa State University, November, 1997.
- ‘Meta-Analysis for the Evaluation of Potential Surrogate Markers’, Mayo Clinic, December, 1997.
- ‘Nonconjugate Bayesian estimation of covariance matrices,’ Seminar, Department of Statistics, University of Minnesota, December, 1997.
- ‘Computing posterior distributions for covariance matrices’, Interface 98, Minneapolis, May, 1998.
- ‘What do we eat? Analysis of dietary survey data’, Seminar, Center for Statistical Sciences, Brown University, October, 1998.
- ‘Spatial-temporal modelling of PM10 in Pittsburgh’, Department of Biostatistics, Johns Hopkins University, May, 1999.
- ‘Modelling covariance matrices for longitudinal data’, Joint Statistical Meetings, Baltimore, 1999.
- ‘A hierarchical model for the covariance function in time series data’, Seminar, Department of Statistics, University of Iowa, September, 1999.
- ‘Estimating large covariance matrices with applications to hierarchical models’, Seminar, Division of Statistics, Northern Illinois University, October, 1999.
- ‘Estimating large covariance matrices with applications to hierarchical models’, Seminar, Department of Biostatistics, University of Minnesota, October, 1999.
- ‘Estimating large covariance matrices with applications to hierarchical models’, Seminar, Department of Biostatistics, Columbia University, November, 1999.
- ‘Shrinkage estimators for covariance matrices with applications’, Seminar at Department of Mathematics and Statistics, Boston University, March 2000

- ‘Dynamic Models and Bayesian Modelling of Covariance Matrices in Longitudinal Data’, Seminar at Department of Statistics, Harvard University, March 2000
- ‘Informative dropout in a Growth Hormone trial’, ENAR, Chicago, March, 2000.
- ‘Spatio-temporal Models for Air Pollution’, Invited talk at Workshop on Hierarchical Modeling in Environmental Statistics, Columbus, May 2000.
- ‘Frequentist and Bayesian inference for potentially non-ignorable non-response in randomized clinical trials.’ Invited talk at American Mathematical Society Summer Research Conference on Bayes, Frequentist and Likelihood Inference: A Synthesis, Mount Holyoke, July 2000.
- ‘Dynamic models for analysis of Longitudinal Data’, Seminar, Department of Statistics, Iowa State University, October 2000.
- ‘Dynamic models for analysis of Longitudinal Data’, Seminar, Department of Statistics, University of Connecticut, November 2000.
- ‘Spatio-temporal Models for Air Pollution’, ENAR, Charlotte, March 2001.
- Discussant, ISBA Regional Meeting, Laguna Beach (CA), April, 2001.
- ‘Space-time Models for Multiple Pollutants’, Joint meetings, Atlanta, August 2001.
- ‘Bayesian analysis of covariance matrices for longitudinal data’, VIII Latin American Congress on Probability and Mathematical Statistics, Havana, Cuba, November, 2001.
- ‘Modelling dependence in longitudinal data’, Department of Statistics, University of Florida, April 2002.
- ‘Modelling dependence in longitudinal data’, Department of Biostatistics, University of Minnesota, April 2002.
- ‘Modelling heterogeneous and parsimonious covariance structures in longitudinal data’, WNAR, Los Angeles, June, 2002.
- (Unable to attend) Invited Participant, American Mathematical Society Summer Research Conference on Emerging Issues in Longitudinal Data, Mount Holyoke, July 2002.
- ‘Examining assumptions about missing data using prior distributions’, Joint meetings, New York, August 2002 (co-author presented).
- (Unable to attend) Invited panel discussant, Statistics and Air Quality – the USEPA Criteria Document for Particulate Matter, Joint meetings, New York, August 2002.
- ‘Shrinkage priors for the dependence structure in temporal data’, The Granada International Workshop on Objective Bayesian Analysis, University of Granada, Granada, Spain, December, 2002.
- ‘Conditional modelling of spatio-temporal processes’, ENAR, Tampa, March 2003.
- ‘Shrinkage priors for the dependence structure in temporal data’, Department of Statistics, University of Missouri, Spring 2003.
- Discussion of “Nonparametric Bayesian Survival Analysis” by J. Lee, Fourth International Workshop on Objective Prior Methodology, Aussois, France, June 2003.
- “Modelling conditionally specified space-time models with application to multiple pollutants”, Department of Statistics, University of Chicago, October, 2003.

- “Modelling complex dependence in health services data”, International Conference on Health Policy Research, Chicago, October, 2003.
- “Conditionally specified space-time models for multivariate processes”, Department of Statistics/Biostatistics, University of South Carolina, March 2004.
- “Conditionally specified space-time models for multivariate processes”, Bayesian Methods Working Seminar, Department of Biostatistics, Harvard University, April, 2004.
- “Conditionally specified space-time models for multivariate processes”, Department of Statistics, North Carolina State, April 2004.
- “Conditionally specified space-time models for multivariate processes”, IISA conference, Athens, GA, May 2004.
- “Some issues/strategies for inference with pattern mixture models in the presence of (informative) dropout”, ISBA meetings, Chile, May 2004.
- “Marginalized transition random effects models for multivariate longitudinal binary data”, SRCOS meetings, Blacksburg, VA, June 2004.
- “Bayesian modelling of several covariance matrices and some results on propriety of the posterior for linear regression with correlated and/or heterogeneous errors”, Joint meetings, Toronto, August 2004.
- “Using the Cholesky Decomposition to Model the Covariance Matrix in Ordered Data”, Vision-Learning Seminar, Department of Computer Science, University of Florida, November, 2004.
- Invited discussant, Objective Bayes 2005, Branson, Missouri, June, 2005.
- “Marginalized models for multivariate longitudinal binary data”, Joint meetings, Minneapolis, August 2005.
- “Bayesian multiple curve fitting”, Center for Statistical Science, Brown University, November 2005.
- “Bayesian multiple curve fitting: Likelihood approximations”, Department of Biostatistics, Emory University, March 2006.
- “Longitudinal profiling of health care units based on mixed multivariate patient outcomes,” ENAR, Tampa, March 2006
- “Joint modelling of longitudinal continuous and binary processes”, Department of Biostatistics, Vanderbilt University, May 2006
- “A General Class of Pattern Mixture Models for Nonignorable Dropout with Many Possible Dropout Times,” ICSA Symposium, Storrs (CT), June 2006
- “Modelling the association between a binary and a continuous longitudinal process”, IBC 2006, Montreal, July 2006.
- “On Estimation of Vaccine Efficacy Using Validation Samples with Selection Bias,” Joint meetings, Seattle, August 2006.
- “A Class of Markov models for longitudinal ordinal data”, ENAR, Atlanta, March 2007.
- “Joint modelling of longitudinal continuous and binary processes”, Department of Statistics, Florida State University (joint UF/FSU colloquium), March 2007

- “Joint modelling of longitudinal continuous and binary processes”, Department of Biostatistics and Applied Mathematics, University of Texas MD Anderson Cancer Center, April 2007.
- “Analysis of the treatment mechanism in a smoking cessation trial”, Department of Mathematics and Statistics, Williams College, May 2007.
- “Bayesian modelling of longitudinal processes with dropout and non-compliance” Joint Statistical Meetings, Salt Lake City, July 2007.
- “Joint modelling of longitudinal continuous and binary processes”, Department of Biostatistics, University of Washington, November 2007.
- “A general class of pattern mixture models for nonignorable dropout with many possibly dropout times”, LSU Biostatistics, November 2007.
- “Modeling correlation matrices via partial autocorrelations”, ENAR, Crystal City, March 2008.
- “Joint modelling of longitudinal continuous and binary processes”, Department of Statistics and Department of Epidemiology & Biostatistics, University of South Carolina (joint Stat/Biostat colloquium), March 2008
- “Statistical methods for missing data in longitudinal studies”, Academy Health Annual Research Meeting, Washington, D.C., June 2008.
- “Bayesian semiparametric selection models”, Department of Statistics, UC Irvine, December 2008.
- “Bayesian semiparametric selection models”, Department of Biostatistics and Computational Biology, University of Rochester, December 2008.
- “Bayesian semiparametric selection models”, Bayesian Biostatistics 2009, MD Anderson Cancer Center, Houston, January 2009.
- “Semiparametric Bayesian inference in longitudinal data with informative dropout”, ENAR, San Antonio, March 2009.
- “Modelling correlation matrices with partial correlations”, Department of Statistics, Duke University, March 2009.
- “Semiparametric Bayesian inference in longitudinal data with informative dropout”, Department of Biostatistics, University of North Carolina-Chapel Hill, April 2009.
- “Semiparametric Bayesian inference in longitudinal data with informative dropout”, Eastern Mediterranean Region of the International Biometrics Society Meeting, Istanbul, May 2009.
- “Model selection for incomplete data”, 75th Anniversary Conference of ISU Statistics Department, Ames, IA, June 2009.
- “Priors and models for correlation matrices”, Objective Bayes 2009, Philadelphia, June 2009.
- “Marginalized models for multivariate longitudinal ordinal data”, WNAR, Portland (OR), June 2009.
- “Generalized Linear models for a correlation matrix in longitudinal data”, Joint Statistical Meetings, Washington, D.C., August, 2009.
- “Causal inference for quality of life data in the presence of progression and death”, Center for Statistical Science, Brown University, October 2009.
- “Causal inference for quality of life data in the presence of progression and death”, Department of Biostatistics, University of Wisconsin-Madison, November 2009.

- “Priors for correlation matrix regression coefficients in longitudinal data”, Frontier of Statistical Decision Making and Bayesian Analysis Conference in honor of Jim Berger, San Antonio, March 2010.
- “A novel approach for eliciting and odds ratio in the setting of incomplete longitudinal data”, ENAR, New Orleans, March 2010.
- “Causal inference for quality of life data in the presence of progression and death”, Department of Statistics, University of Missouri, April 2010.
- “Causal inference for quality of life data in the presence of progression and death”, Department of Biostatistics, University at Buffalo, April 2010.
- “A Bayesian Shrinkage Model for Incomplete Longitudinal Binary Data with Application to a Breast Cancer Prevention Trial”, Department of Mathematics and Statistics, Arizona State University, April 2010.
- Invited Discussant for “Missing Data in Clinical Studies” (Topic Contributed Session), Joint Statistical Meetings, Vancouver (Canada), August, 2010.
- “Bayesian methods for model selection for incomplete data”, Department of Statistics, University of California-Irvine, January, 2011.
- Invited lectures (one of three (international) featured speakers), International Workshop on Applied Statistics, Bogota (Colombia), February 2011.
- “Bayesian methods for model selection for incomplete data”, Department of Statistics, North Carolina State University, February, 2011.
- Four Invited lectures on incomplete data (one of three speakers), 42nd Winter Statistics Conference, Hemavan (Sweden), March 2011.
- “Analysis of longitudinal quality of life data using principal stratification and a new multivariate longitudinal ordinal model”, ENAR, Miami, March 2011.
- “Bayesian methods for causal inference on mediators with application to a weight management clinical trial”, Workshop on Causal Inference in Health Research, Montreal (Canada), May 2011.
- Invited talk on missing data (Keynote speaker), Australia Young Statisticians Conference 2011, Brisbane (Australia), July 2011.
- “Fully Bayesian Inference under ignorable missingness in the presence of auxiliary covariates”, Invited talk, 21st Symposium on Statistics: Regression Models, Bogota (Colombia), July 2011.
- “Bayesian methods for causal inference on mediators with application to a weight management clinical trial”, Joint Statistical Meetings, Miami, August 2011.
- “Nonparametric priors for simultaneous covariance estimation”, NSF Advanced Distinguished Lecturer, Department of Statistics, Kansas State University, September 2011.
- “Bayesian methods for causal inference on mediators with application to a weight management clinical trial”, Department of Biostatistics, Erasmus MC, Rotterdam (Netherlands), October 2011.
- “Fully Bayesian Inference under ignorable missingness in the presence of auxiliary covariates”, Bayesian Biostatistics 2012, Houston, January 2012
- “Nonparametric priors for simultaneous covariance estimation”, Department of Statistics, Temple University, March 2012.

- Invited talk, ENAR, Washington, D.C., April 2012.
- “Bayesian methods for causal inference on mediators with application to a weight management clinical trial”, Department of Epidemiology and Biostatistics, University of Illinois-Chicago, April 2012.
- Invited talk, International workshop on perspectives on high-dimensional data analysis, Montreal, May-June 2012.
- “Fully Bayesian Inference under ignorable missingness in the presence of auxiliary covariates”, ISBA 2012, Kyoto, June 2012.
- “Fully Bayesian Inference under ignorable missingness in the presence of auxiliary covariates”, Special Invited talk, International Symposium in Statistics (ISS) on Longitudinal Data Analysis Subject to Outliers, Measurement Errors, and/or Missing Values, St. John’s (Canada), July 2012.
- “Nonparametric priors for simultaneous covariance estimation”, Joint Statistical Meetings, San Diego, August 2012.
- “Nonparametric priors for simultaneous covariance estimation”, Department of Statistics & Probability, Michigan State University, November 2012.
- “Bayesian methods for causal inference on multiple mediators”, Department of ENAR, Orlando, March 2013
- “Fully Bayesian Inference under ignorable missingness in the presence of auxiliary covariates”, UPENN Biostatistics, April 2013.
- Invited seminar at Department of Statistics, Rice University, April 2013.
- “Bayesian methods for causal inference on multiple mediators”, Invited seminar at Department of Biostatistics, MD Anderson Cancer Center, April 2013.
- Invited talk at High-dimensional Data Analysis Workshop, Vancouver (Canada), June 2013.
- “Bayesian methods for causal inference on mediators”, Invited talk at International Chinese Statistical Association (ICSA) Conference, Bethesda, MD, June 2013
- “Bayesian methods for causal inference on mediators”, Invited talk at the Joint Statistical Meetings, Montreal (Canada), August 2013.
- “A Flexible Bayesian Approach to Monotone Missing Data in Longitudinal Studies with Informative Missingness”, Invited colloquium at Department of Biostatistics, Harvard University, September, 2013.
- “A Flexible Bayesian Approach to Monotone Missing Data in Longitudinal Studies with Informative Missingness”, Invited colloquium at Department of Statistics, Texas A&M University, November, 2013.
- “A Flexible Bayesian Approach to Monotone Missing Data in Longitudinal Studies with Informative Missingness with application to surveys”, Invited talk, SAMSI workshop on Censuses and Surveys, Washington, D.C., January 8-10, 2014.
- “A Flexible Bayesian Approach to Monotone Missing Data in Longitudinal Studies with Informative Missingness”, Invited seminar, Department of Biostatistics, Brown University, February 2014.
- “A Flexible Bayesian Approach to Monotone Missing Data in Longitudinal Studies with Informative Missingness”, Invited talk, ENAR, Baltimore, March 2014.

“A Flexible Bayesian Approach to Monotone Missing Data in Longitudinal Studies with Informative Missingness”, Invited seminar, Department of Statistics, Umea University (Sweden), March 2014.

Invited panelist for 7th Annual Conference on Statistical Issues in Clinical Trials: Current Issues Regarding the Use of Biomarkers and Surrogate Endpoints in Clinical Trials, University of Pennsylvania, April 2014.

“A Flexible Bayesian Approach to Monotone Missing Data in Longitudinal Studies with Informative Missingness”, Invited seminar, NICHD, Bethesda, April 2014.

“Bayesian nonparametrics, Informative priors, and Causal Inference”, Atlantic Causal Inference Conference, Providence, May 2014.

“A Flexible Bayesian Approach to Monotone Missing Data in Longitudinal Studies with Informative Missingness”, WNAR 2014, Hawaii, June 2014.

“A Flexible Bayesian Approach to Monotone Missing Data in Longitudinal Studies with Informative Missingness”, Invited seminar, University of Torino and Colegio Carlo Alberto, Turin (Italy), July 2014.

“Bayesian longitudinal causal mediation analysis”, IBC 2014, Florence (Italy), July 2014.

“Bayesian longitudinal causal mediation analysis”, ISBA 2014, Cancun (Mexico), July 2014.

Invited talk, The Fourth International Workshop on the Perspectives on High-dimensional Data Analysis, Banff (Canada), August 2014.

Contributed

‘Multilevel Hierarchical Generalized Linear Models,’ ENAR Spring Meetings, Birmingham, 1995.

‘Bivariate Meta-Analysis for the Evaluation of Potential Surrogate Markers’, Joint Statistical Meetings, Orlando, 1995.

‘Model Checking and Selection in Hierarchical Models,’ Special Contributed Paper, Joint Statistical Meetings, Chicago, 1996.

‘Nonconjugate Bayesian estimation of covariance matrices,’ Meetings for Analysis of Longitudinal Data (abstract accepted), Nantucket, 1996.

‘Nonconjugate Bayesian estimation of covariance matrices,’ Seminar for Bayesian inference in econometrics and statistics, Columbus, 1997.

‘Computing posterior distributions for covariance matrices’, Special Contributed Paper, Joint Statistical Meetings, Dallas, 1998.

‘Estimating Usual Intake for Dietary Data’, Meetings on Bayesian Statistics, Valencia, 1998.

‘What do we eat? Analysis of dietary survey data’, ENAR Spring Meetings, Atlanta, 1999.

‘Exploration of measurement error and microscale variability in pm monitoring in pittsburgh’, Third Colloquium on Particulate Matter and Human Health, (abstract accepted), Durham, 1999.

‘Hierarchical non-parametric poisson models in environmental epidemiology: investigating the association between particulate matter and mortality’, Third Colloquium on Particulate Matter and Human Health, (abstract accepted), Durham, 1999.

‘Assessing sources of variability in measurement of ambient particulate matter’, Special Contributed (Topic) Session, Joint Statistical Meetings, Indianapolis, August, 2000.

- ‘Dynamic conditionally linear mixed models’, ISBA Regional Meeting, Laguna Beach (CA), April, 2001.
- ‘Experience with the Danish Mix-ELISA in the United States’, Salin pork 2001, (abstract accepted), Leipzig (Germany), September, 2001.
- ‘Experience with the Danish Mix-ELISA in the United States’, Food Safety Consortium, Ames, September, 2001.
- ‘Bayesian analysis of covariance matrices in longitudinal data’, (paper accepted), Valencia 7 Meetings, Tenerife (Spain), June 2002.
- ‘Estimating the accuracy of the DME in the U.S.’, (paper accepted) IPVS 2002, Ames, June, 2002.

Editorial Boards

- Corresponding Editor for Institute of Mathematical Statistics Bulletin, 1998-2001
- Associate Editor for *Biometrics*, 2003- 2014 (6 terms; resigned)
- Associate Editor for *Journal of the American Statistical Association* (Applications and Case Studies), 2005-2012 (3 terms)
- Associate Editor for *Statistics & Probability Letters*, 2007-2014.
- Associate Editor for *Biostatistics*, September 2010-2014 (resigned)
- Editorial Board (five member founding board), Springer book series, Frontiers in Probability and Statistical Sciences, 2013-
- Co-Editor for *Biometrics*, 2015-2018

Professional activities

- Member of EPA FIFRA Scientific Advisory Panel, September, 1999
- Review Committee for ENAR Student Paper Awards, 1999-2000
- Co-organized ENAR invited session on informative missing data, 2000.
- NIH Study Section (Small grants program for cancer), Spring and Fall 2001
- Member of EPA Scientific Advisory Panel on Water Quality, December 2001
- Organized ENAR invited session on longitudinal data, 2002.
- ENAR Regional Advisory Board, 2003-2005.
- Organized JSM invited session on modelling dependence, 2004.
- ad hoc member, NIH BMRD Study Section, 2004, 2006.
- HPSS Section Representative to ENAR, 2004-2005.
- Member of ENAR Program Committee, 2005
- Organized invited session on Bayesian Biostatistics, International Workshop/Conference on Bayesian Statistics and its Applications, India, January, 2005.

Organized JSM invited session on longitudinal data, 2005.

Program Chair, Biometrics Section of ASA, 2006

Nominated to stand for election as member of International Society for Bayesian Analysis (ISBA) Board, Spring 2007 (election).

Review Committee for Student Paper Awards for Section on Bayesian Statistical Science (SBSS) of the ASA, 2007.

Savage Thesis Award Committee, 2007-2008, 2008-2009

Council of Sections Representative, Biometrics Section of the ASA, 2008 (elected in 2007).

ad hoc member, NIH ACE Study Section, 2008.

Program Chair, Section on Bayesian Statistical Science (SBSS) of the ASA, 2009 (elected in 2007).

Program Chair, ENAR Spring Meetings 2010, New Orleans.

Treasurer, ENAR, 2010-2011 (elected in 2009)

Mitchell Prize Committee, 2009-2010, 2010-2011

Nominated to stand for election as Chair of the Biometrics Section of the ASA, Spring 2010 (election)

Nominated to stand for election as Treasurer of International Society for Bayesian Analysis (ISBA), Fall 2010 (election).

Officers Nominations Committee, Section on Bayesian Statistical Science (SBSS) of the ASA, 2011-2013.

reviewer, NIH special panel on 'Scientific Models to Improve Health', 2010

Organized WNAR invited session on causal inference, 2011.

Organized IMS invited session for ENAR on estimating dependence, 2012.

Chair of Mitchell Prize Committee, 2011-2012

Treasurer, International Society for Bayesian Analysis (ISBA), 2011-2013.

Member, NIH AIDS & Clinical Epidemiology (ACE) Study Section, 2012-2016.

Member, Board Advisory Group for MRC Biostatistics Unit (Cambridge, England), 2012-2013.

Chair-elect, Biometrics Section of the ASA, 2013.

Regional Committee of ENAR (elected in 2013), 2014-2016.

Chair, Biometrics Section of the ASA, 2014.

Program co-chair, 50th Anniversary Southern Regional Council on Statistics annual meeting, Galveston (TX), June, 2014.

Committee for the Lagakos Distinguished Alumni Award (Harvard Biostatistics), 2015

Refereeing/Reviewing

Refereed papers for JASA, JRSS-B, Environmetrics, Canadian Journal of Statistics, JCGS, JBES, JABES, Archives of General Psychiatry, Case Studies in Bayesian Statistics, Journal of Clinical Oncology, Statistics in Medicine, Biostatistics, American Journal of Epidemiology, Biometrics, Health Services and Outcomes Research Methodology, Annals of Internal Medicine, Psychological Bulletin, Journal of Statistical Planning and Inference, Statistical Science, Environmental Health Perspectives, Science for the Total Environment, Biometrika, Statistical Modelling, Lifetime Data Analysis, Biometrical Journal, JRSS-A, Atmospheric Environment, Statistica Sinica, Annals of Statistics, Ecology, Journal of Clinical Epidemiology, Bayesian Analysis, Statistics and Computing, Circulation

Grant reviewer for NSF, NIH, and HEI (Health Effects Institute)

Reviewed manuscripts for Springer-Verlage, Duxbury Press, and Addison Wesley Longman

External thesis examiner for F.K. Wong's PhD thesis, Australian Graduate School of Management, 2004

Consulting/Collaborations

Boston Medical Area (Consulting Lab), 1993-1994

Western Psychiatric Institute and Clinic, in designing and analyzing studies, grant preparation, 1995-1996

Legal Firm (Freedman and Lockhart), analysis of data regarding potentially forged document, 1996

Carnegie Mellon History Department, analysis of educational data, 1996-1997

HIV RNA Surrogate Marker Collaborative Group, analysis of surrogate markers in AIDS trials, 1997-1999

Iowa State University, Department of Animal Science, Agronomy, Zoology and Genetics, and Veterinary Medicine, 1997-

Des Moines hospitals, analysis of perinatology data, design of survey on factors related to having genetic counseling, 1998-

Pfizer, study design and data analysis for drug testing, 1998-1999

Nextran, risk factors in Xenotransplantation, 1999-

Iowa State University, Department of Microbiology and School of Veterinary Medicine: project involving eventual eradication of multi-drug resistant salmonella in swine, 2001-

Environomics, review document on water quality regulations, 2004

Asthmatx, Member of Mock FDA panel, 2009.

California EPA, review document on water quality regulations, 2010.

Expert Witness, two cases, 2011-2012

Departmental and University Service

Master's Exam Committee, 1997, Carnegie Mellon

Joint Statistics/Education Position Search Committee, 1998-1999, Iowa State

Joint Statistics/Genetics Position Search Committee, 1999-2000, Iowa State

Seminar Chair, 1999 (Fall), Iowa State

Written questions for Masters' and PhD exams, 1999-2002, Iowa State

Masters' Exam Committee, 1999-2001, Iowa State

Baker Center Director Search Committee, 2000-2001, Iowa State

Bioinformatics/Computing Position Search Committee, 2001, Iowa State

Ph.D. Prelim Exam Committee, 2001-2002

Senior Position Search Committee, 2002, Iowa State

COG position search committee, 2002 University of Florida

Ag/Biostat position search committee, 2003 University of Florida

Core search committee for College of Public Health, 2003-2004, University of Florida

Chair of Biostatistics search committee, 2003-2004, University of Florida

Chair of CLAS Statistics search committee, 2004-2005, University of Florida

Department By-Laws Committee, 2006

Winter Workshop Committee, 2006

College of Public Health and Health Professions (PHHP) Public Health Executive Committee, 2006-2008

PHHP Leadership Committee, 2006-2007

PHHP Public Health Operations Committee, 2007-2008

Epidemiology faculty search committee, 2006-2007

Chair of Social and Behavior Sciences faculty search committee, 2007

Search Committee for Dean of College of Public Health and Health Professions (PHHP), 2009

UF CTSI KL2 Mentoring Advisory Committee, 2009-2012

Chair of Search Committee for Chair of Biostatistics (PHHP and COM), 2010- 2012

Search Committee for Chair of Clinical & Health Psychology (PHHP), 2010

Merit Committee (UT-Austin, IB), 2012-2013

Graduate Advisor (UT-Austin, SSC), 2013-2014

Health Science Scholars Program (HSS) Steering Committee (UT-Austin, CNS), 2015-

PhD Students

- Ozlem Ilk (Iowa State), co-supervise with Cook, (graduated Spring 2004)
 - thesis title: Exploratory multivariate longitudinal data analysis and models for multivariate longitudinal binary data
 - currently (tenured) Associate Professor, Department of Statistics, Middle East Technical University
- Carsten Botts (Iowa State), graduated Summer 2005
 - thesis title: Bayesian methods in single and multiple curve fitting
 - currently Senior Scientist, Johns Hopkins University Applied Physics Lab
- Xuefeng Liu (Florida), graduated Summer 2006
 - thesis title: Bayesian methodology for models with multivariate longitudinal outcomes
 - currently (tenured) Associate Professor, Department of Biostatistics and Epidemiology, East Tennessee State University
- Keunbaik Lee (Florida), graduated Summer 2007
 - thesis title: Markov models for Longitudinal Categorical Data
 - Awarded an ENAR Distinguished Student Paper Award, 2006
 - currently (tenure track) Assistant Professor in Biostatistics, Louisiana State University
- Dhiman Bhadra (Florida), co-supervise with Ghosh (graduated Summer 2010)
 - thesis title: Bayesian semiparametric regression and related applications
 - Awarded an HPSS Student paper Award for JSM 2010
 - Awarded an SBSS Student paper Award for JSM 2010
 - currently (tenure track) Assistant Professor, Department of Mathematical Sciences, Worcester Polytechnic Institute
- Chenguang Wang (Florida), graduated Summer 2010
 - thesis title: Bayesian Nonparametric and Semi-Parametric Methods for Incomplete Longitudinal Data
 - Awarded an SBSS Student paper Award for JSM 2010
 - currently, Assistant Professor, Division of Oncology Biostatistics, Johns Hopkins University
- Yanpin Wang (Florida), PhD in Biostatistics, Summer 2012
 - thesis title: Inference for correlation matrices for ordered and longitudinal data
 - Awarded an ENAR Distinguished Student Paper Award, 2012
 - currently, Senior Analyst, First National Bank
- Arkendu Chatterjee (Florida), Spring 2013
 - thesis title: Bayesian model selection and fit for incomplete longitudinal data
 - currently, statistician at Novartis Pharmaceuticals
- Jeremy Gaskins (Florida), Summer 2013
 - thesis title: Bayesian methods for modeling dependence structures in longitudinal data
 - Awarded an ENAR Distinguished Student Paper Award, 2013
 - currently, tenure track assistant professor, Department of Biostatistics, Louisville
- Chanmin Kim (Florida), Summer 2013
 - thesis title: Bayesian methods for inference on the causal effect of mediation
 - currently, postdoc, Harvard
- Minzhao Liu (Florida), Summer 2014
 - thesis title: New approaches for quantile regression
 - currently, Statistician at PPD
- Antonio Linero (Florida), expected Summer 2015
 - Awarded the Laplace Award for best SBSS student paper submission to JSM 2014
- Xuan Luo (Florida), Xiao Wu (Florida), Dandan Xu (Florida), Wei Feng (Florida), expected Summer 2015

Miscellaneous

discussed 1997 Nature paper on radio shows in Texas and Minnesota