# **Michael Lindsey Pennell**

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#### **ACADEMIC PREPARATION:**

Ph.D. in Biostatistics, University of North Carolina at Chapel Hill, May, 2006

- Concentrations: Bayesian methodology, longitudinal data analysis, statistical applications in epidemiology and environmental health
- Dissertation: Bayesian Semiparametric Methods for Longitudinal, Multivariate, and Survival Data
- Advisor: Dr. David B. Dunson, currently at Duke University

M.S. in Biostatistics, University of North Carolina at Chapel Hill, 2002

- Master's Thesis: Identification of Multivariate Outliers in Environmental Data
- Advisor: Dr. Lawrence L. Kupper

Bachelor of Science, University of Puget Sound, Tacoma, WA, 2000

• Biology major, Math minor

### **HONORS AND AWARDS:**

- James E. Grizzle Distinguished Alumnus Award, Department of Biostatistics, UNC-Chapel Hill, 2016.
- Excellence in Teaching Award, The Ohio State University College of Public Health, 2014
- Kupper Dissertation Publication Award, Department of Biostatistics, UNC-Chapel Hill, 2007
- Intramural Research Training Award, National Institute of Environmental Health Sciences, 2004-2006
- Student Paper Award, ASA Section on Bayesian Statistical Science, 2005
- Runner-up, Student Merit Award in Dose Response, Society for Risk Analysis, 2004
- Student Travel Award, Society for Risk Analysis, 2004
- Special Commendation, PhD Part II Exam, Dept. of Biostastics, UNC-Chapel Hill, 2003
- Predoctoral Trainee in Environmental Biostatistics, funded by the National Institute of Environmental Health Sciences, 2000-2003
- Delta Omega, Public Health Honors Society, UNC-Chapel Hill, 2002
- Graduated with honors in Biology, Magna Cum Laude, Univ. Puget Sound, 2000
- Phi Beta Kappa, National Honors Society, Univ. Puget Sound, 2000

### **RESEARCH INTERESTS:**

- First hitting time models for survival analysis
- Joint modeling outcomes of mixed types
- Nonparametric Bayes
- Statistical methods in toxicological risk assessment
- Statistical applications in biomedical research including cancer prevention, cancer survivorship, and tobacco control

#### **EXPERIENCE:**

#### **Associate Professor.** Summer 2014-Present

Division of Biostatistics, College of Public Health, The Ohio State University

#### **Assistant Professor**, Fall 2006-Spring 2014

Division of Biostatistics, College of Public Health, The Ohio State University

#### Postdoctoral Trainee, Summer 2006

Biostatistics Branch, National Institute of Environmental Health Sciences

Mentor: Dr. David B. Dunson

#### **Predoctoral Trainee**, 2004-2006

Biostatistics Branch, National Institute of Environmental Health Sciences

Mentor: Dr. David B. Dunson

### Research Assistant, 2001-2003

Energy Expenditures of Physical Activities in Youth (EEPAY) and Cardiovascular Health in Children (CHIC) studies (Dr. Joanne Harrell, P.I.)

School of Nursing, University of North Carolina at Chapel Hill

#### Grader, Fall 2002 and 2003

Probability and Statistical Inference I

Dept. of Biostatistics, University of North Carolina at Chapel Hill

Lecturer: Dr. Anastasia Ivanova

## **Teaching Assistant**, Spring 2002

Principles of Statistical Inference

Dept. of Biostatistics, University of North Carolina at Chapel Hill

Lecturer: Dr. Craig Turnbull

## Undergraduate Trainee, Summer 1998 and 1999

Department of Environmental Microbiology

Pacific Northwest National Laboratory, Richland, WA

Mentor: Dr. James Fredrickson

#### STATISTICAL METHODOLOGY PUBLICATIONS

# Published or In press (19):

- Lim, W. (PhD Student), Pennell, M.L. (corresponding author), Naughton, M.J., and Paskett, E.D. (2023). Bayesian semiparametric joint modeling of a count outcome and inconveniently timed longitudinal predictors. Statistical Methods in Medical Research. 32, 853-867.
- Lim, W. (PhD Student), Pennell, M.L., Naughton, M.J., and Paskett, E.D. (2022). Bayesian semiparametric joint modeling of longitudinal explanatory variables of mixed types and a binary outcome. Statistics in Medicine. 41, 17-36.
- Race, J. (PhD Student), Pennell, M.L. (corresponding author). (2021). Semi-parametric survival analysis via Dirichlet Process mixtures of the first hitting time model. Lifetime Data Analysis. 27, 177-194.
- Nattino, G., Pennell, M.L., and Lemeshow, S. (2020). Assessing the goodness of fit of logistic regression models in large samples: a modification of the Hosmer-Lemeshow Test. Biometrics. 76, 549-560. Selected by the editors to be a discussion paper.
- Hwang, B.S. (PhD student) and Pennell, M.L. (2018). Semiparametric Bayesian joint modeling of clustered binary and continuous outcomes with informative cluster size in developmental toxicity assessment. Environmetrics. 29, e2526.
- Xi, W. (MS student), **Pennell, M.L. (corresponding author)**, Andridge, R.A., and Paskett, E.D. (2018). Comparison of intent-to-treat strategies for pre-post studies with loss to follow-up. Contemporary Clinical Trials Communications. 11, 20-29.
- Erich, R. (PhD student) and Pennell, M.L. (corresponding author) (2015). Ornstein-Uhlenbeck threshold regression for time to event data with and without a cure fraction. Lifetime Data Analysis. 21, 1-19.
- Hwang, B.S. (PhD student) and Pennell, M.L. (2014). Semiparametric Bayesian joint modeling of a continuous and binary outcome with applications in toxicological risk assessment. Statistics in Medicine. **33**, 1162-1175.
- Guo, Y. (MS student), Pennell, M.L., Pearl, D.K., Knobloch, T.J., Fernandez, S., and Weghorst, C.M. (2013). The choice of reference gene affects statistical efficiency in quantitative PCR data analysis. Biotechniques. 55, 207-209.
- Paul, P., Pennell, M.L. (corresponding author), and Lemeshow, S. (2013). Standardizing the power of the Hosmer-Lemeshow goodness of fit test in large datasets. Statistics in Medicine. 32, 67-80. Web of Science Highly Cited Paper (in top 1% of discipline).

Xu, X., Pennell, M.L. (corresponding author), Lu, B., and Murray, D.M. (2012). Efficient Bayesian joint models for group randomized trials with multiple observation times and multiple outcomes. *Statistics in Medicine.* **31**, 2858-2871.

Pennell, M.L., Hade, E.M., Murray, D.M., and Rhoda, D.A. (2011). Cutoff designs for communitybased intervention studies. Statistics in Medicine. 30, 1865-1882.

Rhoda, D.A., Murray, D.M., Andridge, R.R., Pennell, M.L., and Hade, E.H. (2011). Studies with Staggered Starts - Multiple Baseline Designs and Group Randomized Trials. American Journal of Public Health. 101, 2164-2169.

Yu, L., Gulati, P., Fernandez, S.A., Pennell, M., Kirschner, L., and Jarjoura, D. (2011). Fully moderated t-statistic for small sample size gene expression arrays. Statistical Applications in Genetics and Molecular Biology. 10, Article 42.

Murray, D.M., Pennell, M., Rhoda, D., Hade, E.M., and Paskett, E.D. (2010). Designing studies that would address the multilayered nature of health care. Journal of the National Cancer Institute Monographs. 2010(40), 90-96.

Pennell, M.L., Whitmore, G.A., and Lee, M.-L.T. (2010). Bayesian random effects threshold regression with application to survival data with non-proportional hazards. *Biostatistics*. 11, 111-126.

**Pennell, M.L.** and Dunson, D.B. (2008). Nonparametric Bayes testing of changes in a response distribution with an ordinal predictor. *Biometrics* **64**, 413-423.

Pennell, M.L. and Dunson, D.B. (2007). Fitting semiparametric random effects models to large data sets. Biostatistics 8, 821-834.

Pennell, M.L. and Dunson, D.B. (2006). Bayesian semiparametric dynamic frailty models for multiple event time data. Biometrics 62, 1044-1052.

## Submitted (2)

Pennell, M.L., Wheeler, M.W., and Auerbach, S.S. (2023). A hierarchical constrained density regression model for predicting cluster-level dose-response. Submitted to *Environmetrics*.

Race, J.A. (PhD Student), Pennell, M.L., Rupert, A., and Efebera, Y. (2022). Semi-parametric testing for ordinal treatment effects in time-to-event data via dynamic Dirichlet process mixtures of the inverse-Gaussian distribution. Submitted to Statistical Methods in Medical Research.

# **COLLABORATIVE PUBLICATIONS IN BIOMEDICAL JOURNALS (83):**

# Cancer Prevention and Survivorship (34)

Yang, Y., Gorka, S.M., Pennell, M.L., Weinhold, K., Orchard, T. (2023). Intolerance of uncertainty and cognition in breast cancer survivors: the mediating role of anxiety. Cancers. 15, 3105.

- Paskett, E.D., Kruse-Diehr, A.J., Oliveri, J.M., Vanderpool, R.C., Gray, D.M., Pennell, M.L., et al. (2023). Accelerating Colorectal Cancer Screening and Follow-up through Implementation Science (ACCSIS) in Appalachia: protocol for a group randomized, delayed intervention trial. Translational Behavioral Medicine. In press.
- Dignan, M., Paskett, E.D., Oliveri, J.M., Vanderpool, R.C., Katz, M.L., Reiter, P.L, Gray, D.M., Pennell, M.L., et al. (2022). Assessment of colorectal cancer screening in rural Appalachian Ohio and Kentucky: results from a random-digit-dialed telephone survey. Archives of Epidemiology and Public *Health.* **3**, 1-8.
- Bernardo, B.M., Pennell, M.L., et al. (2022). Self-reported symptoms among cancer survivors in the Women's Health Initiative (WHI) Life and Longevity after Cancer (LILAC) cohort. Journal of Cancer Survivorship. In press.
- Krok-Schoen, J.L, Pennell, M.L., et al. (2021). Correlates of physical activity among older breast cancer survivors: findings from the Women's Health Initiative LILAC study. Journal of Geriatric Oncology. 13, 143-151.
- Kruse-Diehr, A.J., Oliveri, J.M., Vanderpool, R.C., Katz, M.L., Reiter, P.L, Gray, D.M., Pennell, M.L., et al. (2021) Development of a multilevel intervention to increase colorectal cancer screening in Appalachia. Implementation Science Communications. 2, 51.
- Reiter P.L., Pennell, M.L., Martinez, G.A., and Katz M.L. (2021). Provider recommendation for HPV vaccination across Hispanic/Latinx subgroups in the United States. Human Vaccines and Immunotherapeutics. 17, 1083-1088.
- Zhang, X., Pennell, M.L., et al. (2021). Body image, physical activity and psychological health in older female cancer survivors. Journal of Geriatric Oncology. 12, 1059-1067.
- Reiter P.L., Pennell M.L., Martinez, G.A., Perkins R.B., and Katz M.L. (2020). HPV vaccine coverage across Hispanic/Latinx subgroups in the United States. Cancer Causes and Control. 31, 905-914.
- Paskett, E., Pennell, M., et al. (2020). A multi-level model to understand cervical cancer disparities in Appalachia. Cancer Prevention Research. 13, 223-228.
- Lucas, F., Pennell, M., et al. (2020). T-cell transcriptional profiling and immunophenotyping uncover LAG3 as a potential significant target of immune modulation in multiple myeloma. *Biol Blood Marrow Transplant.* **26**, 7-15.
- Beverly, C.M. Naughton, M.J., Pennell, M.L., et al. (2018). Change in longitudinal trends in sleep quality and duration following breast cancer diagnosis: Results from the Women's Health Initiative. NPJ Breast Cancer. 4, 15.
- Hastert, T.A., Young, G.S., Pennell, M.L., et al. (2018). Financial burden among older, long-term cancer survivors: Results from the LILAC study. Cancer Medicine. 7, 4261-4272.

- Reeves, K.W., **Pennell, M.L.**, et al. (2018). Predictors of vasomotor symptoms among breast cancer survivors. Journal of Cancer Survivorship. 12, 379-387.
- Paskett, E.D., Caan, B.J., Johnson, L., Bernardo, B.M., Young, G.S., Pennell, M.L., et al. (2018). The Women's Health Initiative (WHI) Life and Longevity after Cancer (LILAC) Study: description and baseline characteristics of participants. Cancer Epidemiology, Biomarkers, and Prevention. 27, 125-137.
- Krok-Schoen, J., Bernardo, B., Weier, R., Peng, J., Katz, M., Reiter, P., Richardson, M., Pennell, M., Tatum, C., Paskett, E. (2018). Belief about mandatory school vaccinations and vaccination refusal among Ohio Appalachian parents: Do demographic and religious factors, general health, and political affiliation play a role? *Journal of Rural Health.* **34**, 283-292.
- Katz M.L., Young G.S., Reiter P.L., Pennell M.L., et al. (2017). Process evaluation of cancer prevention media campaigns in Appalachian Ohio. Health Promotion Practice. 18, 201-210.
- Paskett, E.D., Krok-Schoen, J.L., Pennell, M.L., et al. (2016). Results of a multilevel intervention trial to increase Human Papillomavirus (HPV) vaccine uptake among adolescent girls. Cancer Epidemiology, Biomarkers, and Prevention. 25, 593-602.
- Katz, M.L., Reiter, P.L., Young, G.S., Pennell, M.L., Tatum, C.M., and Paskett, E.D. (2015). Adherence to multiple cancer screening tests among women living in Appalachia Ohio. Cancer, Epidemiology, Biomarkers, and Prevention. 24, 1489-1494.
- Krok-Schoen, J., Katz, M.L., Oliveri, J., Young, G., Pennell, M., Reiter, P., Plascak, J., Slater, M.D., Krieger, J., Tatum, C.M., and Paskett, E.D. (2015). A media and clinic intervention to increase colorectal cancer screening in Ohio Appalachia. BioMed Research International. Article number 943152.
- Krok-Schoen, J.L., Young, G.S., Pennell, M.L., Reiter, P.L., Katz, M.L., Post, D.M., Tatum, C.M., and Paskett, E.D. (2015). Testing Interventions to Motivate and Educate (TIME): A multi-level intervention to improve colorectal cancer screening. Preventive Medicine Reports. 2, 306-313.
- Llanos, A.A., Pennell, M.L., Young, G.S., Tatum, C.M., Katz, M.L., and Paskett, E.D. (2015). No association between colorectal cancer worry and screening uptake in Appalachian Ohio. Journal of Public Health. 37, 322-327.
- David, P., Pennell, M.L., Foraker, R.E., Katz, M.L., Buckworth, J., and Paskett, E.D. (2014). How are previous physical activity and self-efficacy related to future physical activity and self-efficacy? Health Education and Behavior. 41, 573-576.
- Plascak, J.J., Llanos, A.A., Pennell, M.L., Weier, R.C., and Paskett, E.D. (2014). Neighborhood factors associated with time to resolution following an abnormal breast or cervical cancer screening test. Cancer, Epidemiology, Biomarkers, and Prevention. 23, 2819-2828.
- Foraker, R.E., Pennell, M., Sprangers, P., Vitolins, M.Z., DeGraffinreid, C.R., and Paskett, E.D. (2014). Effect of a low-fat or low-carbohydrate weight-loss diet on markers of cardiovascular risk among premenopausal women: a randomized trial. Journal of Women's Health. 23, 675-680.

- Llanos, A.A., Krok, J.L., Peng, J., Pennell, M.L., Olivo-Marston, S., Vitolins, M.Z., Degraffinreid, C.R., Paskett, E.D. (2014). Favorable effects of low-fat and low-carbohydrate dietary patterns on serum leptin, but not adiponectin, among overweight and obese premenopausal women: a randomized trial. SpringerPlus. 3, 175.
- Llanos, A.A., Krok, J.L., Peng, J., Pennell, M.L., Vitolins, M.Z., DeGraffinreid, C.R., and Paskett, E.D. (2014). Effects of a walking intervention using mobile technology and interactive voice response on serum adipokines among postmenopausal women at increased breast cancer risk. Hormones and Cancer. 5, 98-103.
- Llanos, A.A., Peng, J., Pennell, M.L., Krok, J.L., Vitolins, M.Z., DeGraffinreid, C.R., and Paskett, E.D. (2014). Effects of tomato and soy on serum adipokine concentrations in postmenopausal women at increased breast cancer risk: a cross-over dietary intervention trial. Journal of Clinical Endocrinology and Metabolism. 99, 625-632.
- Paskett, E.D., Llanos, A.A., Young, G.S., Pennell, M.L., Lee, C., and Katz, M.L. (2013). Correlates of colorectal cancer screening among residents of Ohio Appalachia. Journal of Community Health. 38, 609-618.
- Murray, D.M., Katz, M.L., Post, D.M., Pennell, M.L., Young, G.S., Tatum, C.M., and Paskett, E.D. (2013). Enhancing cancer screening in primary care: rationale, design, analysis plan, and recruitment results. Contemporary Clinical Trials. 34, 356-363.
- Paskett, E.D., Katz, M.L., Post, D.M., Pennell, M.L., Young, G.S., Seiber, E.E., Harrop, J.P., DeGraffinreid, C.R., Tatum, C.M., Dean, J.A., and Murray, D.M. (2012). The Ohio Patient Navigation Research Program (OPNRP): Does the American Cancer Society patient navigation model improve time to resolution among patients with abnormal screening tests? Cancer, Epidemiology, Biomarkers, and Prevention. 21, 1620-1628.
- David, P., Buckworth, J., Pennell, M.L., Katz, M.L., DeGraffinried, C.R., and Paskett, E.D. (2012). A walking intervention for postmenopausal women using cell phones and interactive voice response. Journal of Telemedicine and Telecare. 18, 20-25.
- Katz M.L., Pennell M.L., Dignan M.B., and Paskett E.D. (2012) Assessment of cancer education seminars for Appalachian populations. Journal of Cancer Education. 27, 287-293.
- Hade, E.M., Murray, D.M., Pennell, M.L., Rhoda, D., Paskett, E.D., Champion, V.L., Crabtree, B.F., Dietrich, A., Dignan, M.B., Farmer, M., Fenton, J.J., Flocke, S., Hiatt, R.A., Hudson, S.V., Mitchell, M., Monahan, P., Shariff-Marco, S., Slone, S.L., Stange, K., Stewart, S.L., and Strickland, P.O. (2010). Intraclass correlation estimates for cancer screening outcomes: estimates and applications in the design of group randomized cancer screening studies. Journal of the National Cancer Institute Monographs. **40**, 97-103.

# Cardiology (7)

Winner, M.W., Sharkey-Toppen, T., Zhang, X.L., Pennell, M.L., Simonetti, O.P., Zweier, J.L., Vaccaro, P.S., and Raman, S.V. (2015). Iron and noncontrast magnetic resonance T2\*as a marker of intraplaque iron in human atherosclerosis. Journal of Vascular Surgery. 61, 1556-1564.

Thavendirannathan, P., Dickerson, J.A., Scandling, D., Balasubramanian, V., Pennell, M.L., Hinton, A., Raman, S.V., and Simonetti, O.P. (2014). Comparison of treadmill exercise stress cardiac MRI to stress echocardiography in healthy volunteers for adequacy of left ventricular endocardial wall visualization: a pilot study. Journal of Magnetic Resonance Imaging. 39, 1146-1152.

Giri, S., Shah, S., Xue, H., Chung, Y.-C., Pennell, M., Guehring, J., Zuehlsdorff, S., Raman, S.V., and Simonetti, O.P. (2012). Myocardial T2 mapping with respiratory navigator and automatic nonrigid motion correction. Magnetic Resonance in Medicine. 68, 1570-1578.

Lin, H.Y., Bender, J.A., Ding, Y., Chung, Y.-C., Hinton, A.M., Pennell, M.L., Whitehead, K.K., Raman, S.V., and Simonetti, O.P. (2012). Shared Velocity Encoding (SVE): A method to improve the temporal resolution of phase contrast velocity measurements. Magnetic Resonance in Medicine. 68, 703-710.

Mihai, G., He, X., Zhang, X., McCarthy, B., Tran, T., Pennell, M., Blank, J., Simonetti, O.P., Jackson, R.D., and Raman, S.V. (2011). Design and rationale for the study of changes in iron and atherosclerosis risk in perimenopause. Journal of Clinical and Experimental Cardiology. 2, 152.

Raman, S.V., Phatak, K., Hoyle, C., Pennell, M.L., McCarthy, B., Tran, T., Prior, T.W., Olesik, J., Lutton, A., Rankin, C., Kissel, J.T., and al-Dahhak, R. (2011). Impaired myocardial perfusion reserve and fibrosis in Friedreich Ataxia: a mitochondrial cardiomyopathy with metabolic syndrome. European Heart Journal. 32, 561-567.

Raman, S.V., Dickerson, J.A., Jekic, M., Foster, E.L., Pennell, M.L., McCarthy, B., and Simonetti, O.P. (2010). Real-time cine and myocardial perfusion with treadmill exercise stress cardiovascular magnetic resonance in patients referred for stress SPECT. Journal of Cardiovascular Magnetic Resonance. 12, 41.

# Environmental and Occupational Epidemiology (4)

Kariisa, M., Foraker, R., Pennell M., Buckley, T., Diaz, P., Criner, G.J., Wilkins J.R. (2015). Short- and long-term effects of ambient ozone and fine particulate matter on the respiratory health of chronic obstructive pulmonary disease subjects. Arch Environ Occup Health. 70, 56-62.

Kariisa, M., Foraker, R., Buckley, T., Pennell, M., Diaz, P., and Wilkins, J.R. (2014). Differential ambient air pollution exposure in a chronic obstructive pulmonary disease cohort: The role of area-level socioeconomic factors. Environmental Justice. 7, 18-26.

Cupul-Uicab, L.A., Hernandez-Avila, M., Terrazas-Medina, E.A., Pennell, M.L., and Longnecker, M.P. (2010). Prenatal exposure to the major DDT metabolite 1,1-dichloro-2,2-bis(p-chlorophenyl)ethylene (DDE) and growth in boys from Mexico. Environmental Research. 110, 595-603.

Studnek, J., Crawford, J.M., Wilkins, J.R., and Pennell, M. (2010). Back Problems among Emergency Medical Services Professionals: The LEADS Health and Wellness Follow-Up Study. American Journal of Industrial Medicine. 53, 12-22.

# Medical Imaging (6)

Niazi, M.K.K, Senaras, C., **Pennell, M.**, et al. (2018). Relationship between the Ki67 Index and its area based approximation in breast cancer. BMC Cancer. 18, 867.

Niazi, M.K.K, Abas, F.S., Senaras, C., Pennell, M., et al. (2018). Nuclear IHC enumeration: A digital phantom to evaluate the performance of automated algorithms in digital pathology. PLOS ONE. 13, e0196547.

Abas, F.S., Shana'ah, A., Christian, B., Hasserjiand, R., Louissaint, Jr., A., Pennell, M., et al. (2017). Computer-assisted quantification of CD3+ T cells in follicular lymphoma. Cytometry: Part A. 91, 609-621.

Fauzi, M.F., Pennell, M., Berkman, S., et al. (2015). Classification of follicular lymphoma: the effect of computer aid on pathologists grading. BMC Medical Informatics and Decision Making. 15, 115.

Lozanski, G., Pennell, M., Shana'ah, A., Zhao, W., Gewirtz, A., Racke, F., Hsi, E., Simpson, S., Mosse, C., Alam, S., Swierczynski, S., Hasserjian, R.P., and Gurcan, M.N. (2013). Inter-reader variability in follicular lymphoma grading: conventional and digital reading. Journal of Pathology Informatics. 4, Article 30.

Belkacem-Boussaid, K., Pennell, M., Lozanski, G., Shana'ah, A., and Gurcan, M. (2010). Computeraided classification of centroblast cells in follicular lymphoma. Analytical and Quantitative Cytology and Histology. 32, 254-260.

# Perinatal and Reproductive Epidemiology and Toxicology (6)

Valentine, C., Morrow, G., Pennell, M., Morrow, A., Hodge, A., Haban-Bartz, A., Collins, K., Rogers, L. (2013). Randomized control trial of docosahexanoic acid supplementation in Midwestern U.S. human milk donors. *Breastfeeding Medicine*. **8**, 86-91.

Rogers, L.K., Young, C.M., Pennell, M.L., Tipple, T.E., Leonhart, K.L., and Welty, S.E. (2012). Plasma lipid metabolites are associated with gestational age but not bronchopulmonary dysplasia. Acta Paediatrica. 101, e321-e326.

Mwapasa, V., Cachafeiro, A., Makuta, Y., Beckstead, D.J., Pennell, M.L., Chilima, B., Mwagomba, B., Fiscus, S.A., and Kwiek, J.J. (2010). Using a simplified human immunodeficiency virus type 1 p24 antigen assay to diagnose pediatric HIV-infection in Malawi. Journal of Clinical Virology. 49, 299-302.

Rogers, L.K., Valentine, C.J., Pennell, M.L., Velten, M., Britt, R.D., Dingess, K., Zhao, X., Welty, S.E., and Tipple, T.E. (2011). Maternal docosahexaenoic acid supplementation decreases lung inflammation in hyperoxia-exposed newborn mice. *Journal of Nutrition*. **141**, 214-222.

Basso, O, **Pennell, M.L.**, Chen, A., and Longnecker, M.P. (2010). Mother's age at menarche and offspring size. *International Journal of Obesity*. **34**, 1766-1771.

Chen, A., **Pennell, M.L.**, Klebanoff, M.A., Rogan, W.J., and Longnecker, M.P. (2006). Maternal smoking during pregnancy in relation to child overweight: follow-up to age 8 years. *International Journal of Epidemiology*. **35**, 121-130.

## Sports Medicine (5)

Ithurburn, M.P., Paterno, M., Thomas, S., **Pennell, M.L.,** Evans, K.D., Magnussen, R., and Schmitt, L.C. (2019). Clinical measures associated with knee function over two years in young athletes after ACL reconstruction. *Knee.* **26**, 355-363.

Ithurburn, M.P., Paterno, M., Thomas, S., **Pennell, M.L.**, Evans, K.D., Magnussen, R., and Schmitt, L.C. (2019). Change in drop-landing mechanics over two years in young athletes after ACL reconstruction. *American Journal of Sports Medicine*. **47**, 2608-2616.

Ithurburn, M.P., Zbojniewicz, A.M., Thomas, S., Evans, K.D., **Pennell, M.L.**, et al. (2019). Lower patient-reported function at 2 years is associated with elevated knee cartilage T1rho and T2 relaxation times at 5 years in young athletes after ACL reconstruction. *Knee Surgery, Sports Traumatology, Arthroscopy.* **27**, 2643-2652.

Harrell, J.S., McMurray, R.G., Baggett, C.D., **Pennell, M.L.**, Pearce, P.F., and Bangdiwala, S.I. (2005). Energy costs of physical activities in children and adolescents. *Medicine and Science in Sports and Exercise*. **37**, 329-336.

McMurray, R.G., Baggett, C.D., Harrell, J.S., **Pennell, M.L.**, and Bangdiwala, S.I. (2004). Feasibility of the Tritrac R3D accelerometer to estimate energy expenditure in youth. *Pediatric Exercise Science*. **16**, 219-230.

## Tobacco Control (6)

Keller-Hamilton, B., Fioritto, M., Klein, E.G., Brinkman, M.C., **Pennell, M.**, Nini, P., Patterson, J.G., and Ferketich, A.K. (2022). Visual attention to blu's parody warnings and the FDA's warning on ecigarette advertisements. *Addictive Behaviors*, **125**, 107169.

Klein, E.G., Alalwan, M.A., **Pennell, M.L.**, Angeles, D., Brinkman, M., Keller-Hamilton, B., Roberts, M.E., Nini, P., and Ferketich, A.K. (2021). Waterpipe warning placement and risk perceptions: an eye tracking study. *American Journal of Health Behavior*. **45**, 186-194.

Moumen M., Brinkman M., Keller-Hamilton B., Teferra A.A., Roberts M.E., Klein E.G., Nini P., **Pennell M.**, and Ferketich A.K. (2020). Waterpipe tobacco warnings need to inform users of harm. *Tobacco Regulatory Science*. **6**, 279-288.

Ferketich, A.K., **Pennell, M.**, Sieber, E., Wang, L., Farietta, T., Jin, Y., and Wewers, M.E. (2014). Provider delivered tobacco dependence treatment to Medicaid smokers. *Nicotine and Tobacco Research*. **16**, 786-793.

Nelms, E., Wang, L., **Pennell, M.**, Wewers, M.E., Sieber, E., Adolph, M.D., Paskett, E.D., Ferketich, A.K. (2014). Trust in physicians among rural Medicaid-enrolled smokers. *Journal of Rural Health.* **30**, 214-220.

Ferketich, A.K., Liber, A., **Pennell, M.**, Nealy, D., Hammer, J., and Berman, M. (2010). Clean indoor air ordinance coverage in the Appalachian region of the United States. *American Journal of Public Health*. **100**, 1313-1318.

## Veterinary Medicine (10)

Lim, K., **Pennell, M.**, Lewis, S., El-Gazzar, M., Gebreyes, W. (2021). Effects of flavophospholipol on conjugation and plasmid curing of multidrug-resistant Salmonella Enteritidis in broiler chickens. *JAC-Antimicrobial Resistance*. **3**, dlab022.

London, C.A., Gardner, H.L., Mathie, T., Stingle, N., Portela, R., **Pennell, M.L.**, et al. (2015). Impact of toceranib/piroxicam/cyclophosphamide maintenance therapy on outcome of dogs with appendicular osteosarcoma following amputation and carboplatin chemotherapy: a multi-institutional study. *PLOS ONE* **10**, e0124889.

London, C.A., Bernabe, L.F., Barnard, S., Kisseberth, W.C., Borgatti, A., Henson, M., Wilson, H., Jensen, K., Ito, D., Modiano, J.F., Bear, M.D., **Pennell, M.L.**, Saint-Martin, J.R., McCauley, D., Kauffman, M., Shacham, S. (2014). Preclinical evaluation of the novel, orally bioavailable selective inhibitor of nuclear export (SINE) KPT-335 in spontaneous canine cancer: results of a Phase I study. PLOS ONE **9**, e87585.

Bernabe, L.F., Portela, R., Nguyen, S., Kisseberth, W.C., **Pennell, M.**, Yancey, M.F., and London, C.A. (2013). Evaluation of the adverse event profile and pharmacodynamics of toceranib phosphate administered to dogs with solid tumors at doses below the maximum tolerated dose. *BMC Veterinary Research*. **9**, 190.

Lutz, E.A., Hoet, A.E., **Pennell, M.**, Stevensen, K., and Buckley, T.J. (2013). Non-outbreak related airborne *Staphylococcus* spp. in a veterinary hospital. *American Journal of Infection Control.* **41**, 648-651.

Couto, J.I., Bear, M.D., Lin, J., **Pennell, M.**, Kulp, S.K., Kisseberth, W.C., and London, C.A. (2012). Biologic activity of the novel small molecule STAT3 inhibitor LLL12 against canine osteosarcoma cell lines. *BMC Veterinary Research*. **8**, 244.

Fossey, S.L., Bear, M.D., Kisseberth, W.C., **Pennell, M.**, and London, C.A. (2011). Oncostatin M promotes STAT3 activation, VEGF production, and invasion in osteosarcoma cell lines. *BMC Cancer*. **11**, 125.

McMahon, M.B., Bear, M.D., Kulp, S.K., **Pennell, M.L.**, and London, C.A. (2010). Biological activity of gemcitabine against canine osteosarcoma cell lines in vitro. *American Journal of Veterinary Research.* **71**, 799-808.

Lord, L.K., **Pennell, M.L.**, Ingwersen, W., and Fisher, R.A. (2008). Sensitivity of commercial scanners to microchips of various frequencies implanted in dogs and cats. *Journal of the American Veterinary Medical Association*. **233**, 1729-1735.

Lord, L.K., **Pennell, M.L**., Ingwersen, W., Fisher, R.A., and Workman, J.D. (2008). In vitro sensitivity of commercial scanners to microchips of various frequencies. *Journal of the American Veterinary Medical Association*. **233**, 1723-1728.

## *Other (5)*

White, A., Bradley, D., Buschur, E., Harris, C., LaFleur, J., **Pennell, M.**, Soliman, A., Wyne, K., and Dungan, K.M. (2022). Effectiveness of a diabetes focused electronic discharge orderset and postdischarge nursing support among poorly controlled hospitalized patients: randomized controlled trial. *JMIR Diabetes*. **7**, e33401.

White, A., Buschur, E., Harris, C., **Pennell, M.**, Soliman, A., Wyne, K., and Dungan, K.M. (2022). Influence of literacy, self-efficacy, and social support on diabetes related outcomes following hospital discharge. *Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy.* **15**, 2323-2334.

Reiter P.L., **Pennell, M.L.**, Katz, M.L. (2020). Acceptability of a COVID-19 vaccine among adults in the United States: how many people would get vaccinated? *Vaccine* **38**, 6500-6507.

Richter, J., McAlearney, A.S., and **Pennell, M.** (2016). The influence of organizational factors on patient safety: examining successful handoffs in health care. *Health Care Management Review.* **41**, 32-41.

Richter, J., McAlearney, A.S., and **Pennell, M.** (2015). Evaluating the effect of safety culture on error reporting: a comparison of managerial and staff perspective. *American Journal of Medical Quality*. **30**, 550-558.

### **GRANTS AND CONTRACTS:**

#### Current, PI:

P01CA229143

04/11/2019-03/31/2024

NIH

Improving uptake of cervical cancer prevention services in Appalachia

Overall PI: Electra Paskett

Role: Core 3 (Biostatistics and Evaluation) Principal Investigator

Effort: 10% Year 1, 5% Years 2-4, 15% Year 5

#### Past, PI:

18IPA1816723

09/01/2018-08/31/2019

#### NIOSH/CDC

Investigation of novel non-parametric Bayesian methodologies to link in vitro dose-response assays to longer term in vivo studies.

Role: PI Effort: 20%

Research Institute at Nationwide Children's Hospital

01/01/2010 - 12/31/2010

Infant Pulmonary Structure and Function Group Role: PI of memorandum of understanding (MOU)

Effort: 15%

351605 10/01/2009 - 09/30/2010

Research Institute at Nationwide Children's Hospital

Prime: Cystic Fibrosis Foundation (NCH PI: Robert Castile)

Changes in Lung Structure and Function in Children with Cystic Fibrosis

Role: Principal Investigator of Subcontract

Effort: 7.5%

343604 10/01/2009 - 09/30/2010

Research Institute at Nationwide Children's Hospital

Prime: Genentech (NCH PI: Robert Castile)

Efficacy of Pulmozyme in Infants and Young Children with Cystic Fibrosis

Role: Principal Investigator of Subcontract

Effort: 7.5%

University of Maryland 09/01/2006 - 08/31/2009

Prime: NIOSH/CDC, R01 OH008649 (PI: Mei-Ling Ting Lee) *Threshold regression methodology for cancer risk assessment* 

Role: PI of Subcontract

Effort: 10%

#### Current, Co-I:

GR129571 10/2020 - 10/2023

Fred Hutchinson Cancer Research Center Women's Health Initiative Regional Center

Role: Co-Investigator, Biostatistics Core Leader for Midwest Regional Center (since 2023)

Effort: 10%

R01CA255563 09/15/2020 - 08/31/2023

Waterpipe tobacco additives and their effect on human puffing behavior, toxicant exposures, pulmonary function, and appeal

PI: Marielle Brinkman

Role: Co-I

Effort: 5% in Year 1, 10% in Years 2-3.

0001011967 09/19/2019 - 08/31/2023

Fred Hutchinson Cancer Research Center

Life and longevity after cancer (LILAC): The women's health initiative cancer survivor cohort

PI: Electra Paskett Role: Co-Investigator

Effort: 10%

UG3CA233282

09/19/2018-07/30/2023

University of Kentucky (NIH Prime)

Accelerating Colorectal Cancer Screening through Implementation Science (ACCSIS) in Appalachia

PI: Mark Dignan Role: Co-Investigator

Effort: 10%

P30CA016058 12/01/2015-11/30/2023

National Cancer Institute

Cancer center support grant | Yr 40: Biostatistics shared resource (NIH Core 007)

PI: Raphael Pollock

Role: Core 7 Co-Investigator

Effort: 5%

AGRMT DTD 10/02/2008 10/01/2006-09/30/2023

Breast Cancer Research Foundation

Breast Cancer Prevention through Nutrition Program

PI: Electra Paskett Role: Co-Investigator

Effort: 10%

Past, Co-I:

R01CA229306 06/07/2018-05/31/2023

NIH

*Graphic and text-based warning labels to combat harm misperceptions.* 

MPI: Amy Ferketich/Marielle Brinkman

Role: Co-Investigator

Effort: 8%

54605499 (Paskett) 12/20/2019-01/01/2023

Pfizer Inc

Turning the page on breast cancer

PI: Electra Paskett Role: Co-Investigator

Effort: 5%

P01CA229143, Supplement 04/01/2020-03/31/2023

NIH

Improving uptake of cervical cancer prevention services in Appalachia, Diversity Supplement

Supplement PI: Kelsey Jordan

Overall PI: Electra Paskett Role: Co-Investigator

Effort: 3%

UL1TR002733 06/29/2018-05/31/2022

NIH

The OSU Center for Clinical and Translational Science: Advancing Today's Discoveries to Improve

Health

PI: Rebecca Jackson Role: Co-Investigator

Effort: 5%

Contract# SA-2016-11531

12/01/2017-07/31/2021

Sanofi-aventis

Effectiveness of a diabetes focused discharge order set among poorly controlled hospitalized patients transitioning to glargine U300 insulin.

PI: Kathleen Dungan Role: Co-Investigator

Effort: 8%

R21MD012800 08/22/2018-03/31/2020

NIH

A secondary analysis to identify HPV vaccination disparities across Hispanic subgroups in the United

States

PI: Paul Reiter

Role: Co-Investigator

Effort: 10%

R01CA134451 07/18/2014 - 05/31/2018

National Cancer Institute

Computer-based assessment of tumor microenvironment (TME) in Follicular Lymphoma.

PI: Metin Gurcan Role: Co-Investigator

Effort: 10%

Fred Hutchison Cancer Research Center 02/15/2013 – 01/31/2018

Prime: National Cancer Institute (1UM1CA173642-01, PI Anderson)

Women's Health Initiative Cancer Survivor Cohort

PI: Electra Paskett Role: Co-Investigator

Effort: 10%

2P50CA105632-06 04/01/2010 - 03/31/2016

National Cancer Institute, NCI

Reducing Cervical Cancer in Appalachia

PI: Electra Paskett

Role: Co-Investigator of Measurement and Analysis Core

Effort: 13%

1R01HL102450-01 04/01/2010 - 03/31/2015

National Heart, Lung, and Blood Institute, NIH Exercise Stress Cardiovascular Magnetic Resonance

PI: Orlando Simonetti Role: Co-Investigator

Effort: 10%

R01 HL095563 05/01/2009 -04/30/2014

National Heart, Lung, and Blood Institute/NIH

Iron and Atherosclerosis

PI: Subha Raman Role: Co-Investigator

Effort: 12%

Karyopharm Therapeutics 08/08/2011 - 09/30/2013

Evaluation of the biologic activity of CRM1 inhibitors against canine cancer cell lines

PI: Cheryl London Role: Co-Investigator

Effort: 1% Academic in 2012; 4% Academic in 2013

Pfizer Inc 11/01/2010-11/30/2013

Impact of Palladia/Piroxicam/Cyclophosphamide maintenance therapy on the survival time of dogs with appendicular osteosarcoma following amputation and carboplatin chemotherapy

PI: Cheryl London Role: Co-Investigator

Effort: 17% (Summer 2013 Only)

Tufts Medical Center 04/01/2013 - 12/31/2013

Patient Navigator Research Program

PI: Electra Paskett Role: Co-Investigator

Effort: 4% Academic and 3% Summer

1R01CA134451-01A1 05/01/2009 -02/28/2013

National Cancer Institute/NIH

Computer-Assisted Grading and Risk Stratification of Follicular Lymphoma

PI: Metin Gurcan Role: Co-Investigator

Effort: 12.5%

R01 CA116487 05/24/2007 - 02/28/2012

National Cancer Institute/NIH

Enhancing Colorectal Cancer Screening in Primary Care (TIME)

PI: Electra Paskett Role: Co-Investigator Effort: 5%

R24 MD002785 05/28/2008 -01/31/2013

National Institutes of Health

CBPR Strategies to Increase Colorectal Cancer Screening in Ohio Appalachia

PI: Electra Paskett Role: Co-Investigator

Effort: 5%

D09CA-500 07/01/2009 - 06/30/2012

Morris Animal Foundation

Biologic Activity of the Curcumin Analog FLL32 Against Canine Osteosarcoma

PI: Cheryl London Role: Co-Investigator

Effort: 5%

UL 1RR025775 05/19/2008 - 04/30/2010

National Center for Research Resources/NIH

The Ohio State University Center for Clinical and Translational Science, Biostatistics Core

Role: Co-Investigator

Effort: 4%

1R21CA141603-01 08/13/2009 - 06/30/2011

National Cancer Institute, NIH

Examining the effect of a provider-delivered intervention among Medicaid smokers

PI: Amy Ferketich Role: Co-Investigator

Effort: 7.5%

AGMT DTD 11/05/2009 09/25/2009-06/30/2010

EXCMR Ltd.

Exercise stress cardiac magnetic resonance imaging

PI: Jennifer Dickerson Role: Co-Investigator

Effort: 5%

P50 CA015632-05S2 09/01/2007 - 08/31/2010

National Cancer Institute, NIH

Reducing cervical cancer in Appalachia (METHODOLOGICAL SUPPLEMENT)

PI: Electra Paskett Role: Co-Investigator

Effort: 15%

NCMHD/ R24MD002785 09/19/2008 - 01/31/2010

Supplement for regional seminar series on health disparities, CBPR strategies to increase colorectal cancer screening in Ohio Appalachia

PI: Electra Paskett

Role: Co-Investigator

Effort: 5%

Joint Microchip Study

01/01/2008-12/31/2008

Bayer Health Care/Schering-Plough Home Ag

Evaluation of scanner sensitivity in detecting microchips of different frequencies in dogs and cats under controlled and shelter field conditions.

PI: Linda Lord Role: Co-PI Effort: 10%

Agrmnt dtd 11/5/07

01/01/2008-12/31/2008

#### AM ANIMAL HOSPITAL ASSOCIATION FDN

Evaluation of scanner sensitivity in detecting microchips of different frequencies in dogs and cats under controlled and shelter field conditions.

PI: Linda Lord Role: Co-PI Effort: 0%

P50-CA015632

09/30/2003-08/31/2008 (Supported 8/08)

National Cancer Institute/NIH

Reducing cervical cancer in Appalachia.

Core B: Biostatistics (Core PI: S. Lemeshow)

Role: Statistician, Biostatistics Core (36% for one summer month)

## **INVITED PRESENTATIONS:**

#### Local

Efficient Bayesian joint models for group randomized trials with multiple observation times and multiple outcomes. Invited talk given to the Department of Mathematics and Statistics, Ball State University, Muncie, IN, November, 2011.

Cutoff designs for community intervention studies. Methodology seminar given to the Initiative in Population Research, Ohio State University, Columbus, OH, April, 2010.

Bayesian threshold regression for time to event data. Invited talk given at Ohio State-Case Western-Cleveland Clinic Biostatistics Symposium, May, 2009.

Modeling survival data using Bayesian random effects threshold regression. Invited talk given to the Department of Statistics, The Ohio State University, Columbus, OH, October, 2008.

A Bayesian nonparametric test for dose-response data. Environmental Exposure and Health Data Seminar hosted by the Divisions of Epidemiology and Environmental Health Sciences in the College of Public Health and the Department of Statistics, The Ohio State University, Columbus, OH, February, 2007.

Bayesian nonparametric and semiparametric methods for correlated data with applications in chemoprevention and toxicology. Invited talk given to the Department of Mathematics and Statistics, Miami University, Oxford, OH, November, 2006.

Bayesian semiparametric methods for longitudinal and survival data. Invited talk given to the Division of Biostatistics, The Ohio State University School of Public Health, Columbus, OH, November, 2005.

#### National/International

Bayesian Semiparametric Joint Modeling of Longitudinal Data and Discrete Outcomes. Invited talk to be given at the Joint Statistical Meetings, American Statistical Association, Toronto, ON, August 2023.

Predicting dose-response using constrained density regression. Invited talk given at the Joint Statistical Meetings, American Statistical Association, Virtual conference, August, 2021.

A Bayesian semiparametric first hitting time model for latent fetal development. Invited talk given at the Conference on Lifetime Data Science, Pittsburgh, PA, May, 2019.

Bayesian threshold regression for multivariate current status data with informative censoring. Invited talk given at the Conference on Lifetime Data Science, Storrs, CT, May, 2017.

Bayesian threshold regression for current status data with informative censoring. Invited talk given to the Department of Biostatistics, UNC-Chapel Hill, April, 2016.

Bayesian threshold regression for informatively censored current status data. Invited talk given at the Spring Meeting of the Eastern North American Region of the International Biometric Society, Baltimore, MD, March, 2014.

Ornstein-Uhlenbeck threshold regression models for time to event data. Invited talk given at the International Chinese Statistical Association Applied Statistics Symposium, Boston, MA, June, 2012.

Regression modeling of time to event data using the Ornstein-Uhlenbeck Process. Invited talk given at the Conference on Risk Assessment and Evaluation of Predictions, Silver Spring, M.D., October, 2011.

A two-step method for fitting semiparametric random effects models to large data sets. Invited talk given at the Spring Meeting of the Eastern North American Region of the International Biometric Society, Atlanta, GA, March, 2007.

Fitting semiparametric random effects models to large data sets. Invited talk given at the International Chinese Statistical Association Applied Statistics Symposium, Storrs, CT, June, 2006.

# Invited Presentations by Advisees

Semiparametric Bayes testing of ordinal effects on survival. Presentation by Jonathan Race, doctoral student in Biostatistics. Invited talk given at the Conference on Lifetime Data Science, Pittsburgh, PA, May, 2019.

## **COURSES TAUGHT (all at The Ohio State University)**

- A Problem Oriented Approach to Biostatistics. Spring 2008-2012.
- Advanced Regression Modeling for Time to Event Data (survival course for Biostat PhD students). Spring 2016, 2018, 2020-2022.
- Applied Survival Analysis. Spring 2017, 2019.
- Biostatistical Collaboration. Spring 2023.
- Design and Analysis of Studies in the Health Sciences I. Fall 2009, 2014, and 2017.
- Design and Analysis of Studies in the Health Sciences II. Spring 2007, 2013-2015.
- Doctoral Seminar in Biostatistics, Fall 2016, 2022.
- Introduction to SAS. Winter 2009.
- Practical Biostatistics for Biomedical Laboratory Researchers. Summer 2007- 2009.
- Regression Methods in the Health Sciences. Fall 2012-2015.

## **DOCTORAL STUDENTS**

- Lingpeng (Andrew) Shan, Biostatistics (2022-present). Tentative Dissertation Title: Bayesian Variable Selection in Joint Models of Longitudinal Data and Discrete Outcomes.
- Woobeen Lim, Biostatistics (Graduated 2021). Dissertation Title: Bayesian Semiparametric Joint Modeling of Longitudinal Predictors and Discrete Outcomes. Current Position: Mathematical Statistician, FDA
- Sara Conroy, Co-Advisor, Epidemiology (Graduated 2019). Dissertation Title: A Novel Approach for Modeling Time to Event Data in Maternal Child Health. Current Position: Research Scientist, The Ohio State University Wexner Medical Center.
- **Jonathan Race**, Biostatistics (Graduated 2019). Dissertation Title: Semi-Parametric Survival Analysis via Dirichlet Process Mixtures of the First Hitting Time Model. Current Position: Assistant Professor, University of Utah.
- **Tao Xiao**, Biostatistics (Graduated 2015). Dissertation Title: Bayesian Threshold Regression for Current Status Data with Informative Censoring. Current Position: Assistant Professor at Shenzhen University in China.
- **Beom Seuk Hwang**, Biostatistics (Graduated 2013). Dissertation: Semiparametric Bayesian Joint Modeling with Applications in Toxicological Risk Assessment. Runner-up, 2013 Student Paper Award, Risk Analysis Section of the American Statistical Association. Current Position: Associate Professor, Chung-Ang University, Seoul, South Korea.
- Roger Erich, Biostatistics (Graduated 2012). Dissertation: Regression Modeling of Time to Event Data using the Ornstein-Uhlenbeck Process. Current Position: Epidemiologist/Biostatistician, Solutions Through Innovative Technologies, Inc.

### **MASTERS STUDENTS**

- Thesis Advisor, MS in Biostatistics (6): Alex Ning (current), Yubo Tan (2017), Sara Conroy (2016), Wenna Xi (2014), Adam Bartley (2014), Yi Guo (2010)
- Culminating Project Advisor, MPH in Biostatistics (6): Julie Nemeth (2018), Deanna Flynn (2011, Co-advisor), Christine Young (2010), Mihyun Chang (2010), Jana Rush (2009, Co-advisor), Angela Pedroza (2008).

#### **NATIONAL SERVICE:**

#### **Government:**

- Inorganic Arsenic Review Panel, Scientific Advisory Board, U.S. EPA, 2023
- Committee to Review the Revised NTP Monograph on Systematic Review of Fluoride Exposure and Neurodevelopmental and Cognitive Health Effects, National Academies of Sciences, Engineering and Medicine, 2020
- Scientific Advisory Committee on Chemicals, Ad hoc member for review of Perchloroethylene, U.S. EPA, 2020
- Committee to Review the NTP Monograph on Systematic Review of Fluoride Exposure and Neurodevelopmental and Cognitive Health Effects, National Academies of Sciences, Engineering and Medicine, 2019
- Committee to Evaluate the IRIS Protocol for Inorganic Arsenic, Committee Member, National Academies of Sciences, Engineering and Medicine, 2019
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Scientific Advisory Panel, Ad hoc member, U.S. EPA, 2017
- Chemical Safety Advisory Subcommittee for 1-Bromopropane, U.S. EPA, 2016
- Libby Amphibole Asbestos Scientific Advisory Board Review Panel, U.S. EPA, 2012
- Trichloroethylene Scientific Advisory Board Review Panel, U.S. EPA, 2010

#### **Professional Societies:**

- Memberships:
  - American Statistical Association (Sections on Bayesian Statistical Science, Biometrics, Lifetime Data Science, Teaching Statistics in the Health Sciences, Risk Analysis)

#### • Offices held:

- Publications Officer, Section on Risk Analysis, American Statistical Association, 2022-2023.
- o Co-chair of organizing committee for Bernard Harris Memorial Symposium: Risk in the 21<sup>st</sup> Centurty, May 10-11, 2018, Raleigh, NC.
- o Past Chair, Section on Risk Analysis, American Statistical Association, 2019
- o Chair, Section on Risk Analysis, American Statistical Association, 2018
- o Chair Elect, Section on Risk Analysis, American Statistical Association, 2017
- Program Chair, Section on Risk Analysis, American Statistical Association, 2016
- o Program Chair Elect, Section on Risk Analysis, American Statistical Association, 2015

#### • Other Service:

- Reviewer, Section on Risk Analysis Student Paper Award, American Statistical Association, 2015-2019, 2022-2023 (Chair in 2017).
- Reviewer, Section on Bayesian Statistical Science Student Paper Award, American Statistical Association, 2014

#### **Conferences:**

• Chaired and organized invited session: "Novel Methods for Dose-Response Assessment of Time-to-Event Outcomes," Lifetime Data Science (LiDS) Conference, LiDS Section, American Statistical Association, Raleigh, NC, 2023.

- Chaired and organized invited session: "Bayesian Analysis Methods for Contemporary Study Designs in Toxicological Risk Assessment," Joint Statistical Meetings, Virtual Meeting, 2020.
- Organized topic contributed session: "Bayesian Statistical Methods for High-Throughput Toxicity Testing and Risk Assessment," Joint Statistical Meetings, Denver, CO, 2019.
- Chaired and organized invited session: "Time-to-Event Models for Human Health Risk Assessment," Conference on Lifetime Data Science, Storrs, CT, 2017.
- Organized topic contributed session: "Time-to-Event Models for Studies with Informative Censoring, Truncation, or Drop-out," Joint Statistical Meetings, Chicago, IL, 2016.
- Chaired and organized topic contributed session: "Recent Developments in the Design and Analysis of Cluster Randomized Trials," Joint Statistical Meetings, Boston, MA, 2014.
- Organized topic contributed session: "Stochastic models for longitudinal and survival data," Joint Statistical Meetings, San Diego, CA, 2012.
- Chaired contributed session: "Robust estimation for skewed and heavy tailed distributions," Joint Statistical Meetings, Denver, CO, 2008.
- Chaired and organized invited session: "Hierarchical modeling in environmental exposure and toxicological risk assessment," Spring Meeting of the Eastern North American Region of the International Biometrics Society, Arlington, VA, 2008.

#### **Reviewer Positions:**

- Associate Editor: Lifetime Data Analysis, 2014-Present
- Statistical Reviewer: Magnetic Resonance in Medicine, 2013-2014
- Article Reviewer (Frequency): Bayesian Analysis (1), Biometrical Journal (2), Biometrics (4), BMC Medicine (1), Communications in Statistics (1), Computational Statistics and Data Analysis (2), Contemporary Clinical Trials (1), Environment International (1), Environmental Toxicology (1), Health Education and Behavior (1), Journal of the American Statistical Association (1), Journal of the Royal Statistical Society, Series C (1), Journal of Statistical Computation and Simulation (3), Lifetime Data Analysis (5), Lung Cancer (1), Methodology and Computing in Applied Probability (1), Pediatric Research (1), Progress in Transplantation (1), Psychometrika (1), Scandinavian Journal of Statistics (1), Statistics and Computing (1), Statistics in Medicine (6), Toxicological Sciences (1)

### **Mentoring Positions:**

- OH-5 Program, 2022
  - o Duties: I mentored an undergraduate on a summer research project.
- Math Alliance Facilitated Applications Process (F-GAP) program, Fall 2018, 2019, and 2021.
  - Outies: I served as a facilitator for students applying graduate programs in the mathematical sciences. I reviewed their application materials (including personal statement) and helped them identify programs that fit their background, professional goals, and interests.
- OSU/Kenyon College Summer Progam, 2018
  - o Duties: I mentored an undergraduate on a summer research project.

### **UNIVERSITY COMMITTEES**

- Biomedical Informatics Graduate Studies Committee, Fall 2013-Spring 2016.
- Grant Reviewer, Ohio State Comprehensive Cancer Center Intramural Research Program, 2014-2021.

• Biomedical Internal Review Board, The Ohio State University, Fall 2006-Winter 2007.

### **COLLEGE COMMITTEES**

- College of Public Health Research Advisory Committee, 2021-2022.
- College of Public Health RAISE (race, inclusion and social equity) Hiring Committee, 2021-2022.
- College of Public Health Research Day Planning Committee, 2016-2018.
- College of Public Health Graduate Studies Committee, The Ohio State University, Fall 2011-Spring 2014.
- College of Public Health ISAC (information science advisory committee) committee, The Ohio State University, Winter 2011-Spring 2013.

### **DIVISION COMMITTEES**

- Mentoring Director, New student mentoring program, Interdisciplinary PhD Program in Biostatistics, The Ohio State University, Fall 2020-Present.
- Qualifier II Committee, Interdisciplinary PhD Program in Biostatistics, The Ohio State University, 2016-2023. Chair in 2016 and 2017.
- Graduate Studies Committee, Interdisciplinary PhD Program in Biostatistics, The Ohio State University, Fall 2008-Spring 2011, Spring 2014-Spring 2018, Fall 2020-Spring 2023.
- Division of Biostatistics faculty search committee, The Ohio State University, Fall 2012-Spring 2013, Fall 2017-Spring 2018, Spring 2021 (Diversity advocate in 2021).
- Graduate Studies Chair, Interdisciplinary PhD Program in Biostatistics, The Ohio State University, Fall 2018-Summer 2020.
- Seminar Chair, Division of Biostatistics, College of Public Health, The Ohio State University Spring 2015-Fall 2017.
- Admissions Committee, Interdisciplinary PhD Program in Biostatistics, The Ohio State University, Fall 2008-Spring 2011, Spring 2014-Spring 2018.
- Biostatistics Chair Search Committee, College of Public Health, The Ohio State University, Fall 2007-Spring 2008, Fall 2014-Spring 2015.
- Admissions Committee Chair (MS/MPH/PhD), Division of Biostatistics, The Ohio State University, Fall 2006-Spring 2008.
- Combined Biostatistics PhD Program Committee, Division of Biostatistics, The Ohio State University, Fall 2006-Spring 2007.
- Website Committee, Division of Biostatistics, The Ohio State University, Fall 2006-Spring 2007.