

CURRICULUM VITAE

Haibo Zhou

BUSINESS ADDRESS:

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CITIZENSHIP:

U.S.A.

MARIAL STATUS:

Married with three children.

EDUCATION:

Ph.D. (1992), Statistics, University of Washington, Seattle, Washington

PROFESSIONAL POSITIONS:

Professor, Department of Biostatistics, Univ. of North Carolina at Chapel Hill,
Chapel Hill, North Carolina, 2008-present
Associate Professor, Department of Biostatistics, Univ. of North Carolina at Chapel Hill,
Chapel Hill, North Carolina, 2003-2008
Director, Biostatistics Core, Center for Environmental Medicine, Asthma and Lung Biology,
Univ. of North Carolina, Chapel Hill, North Carolina, 2006-present
Member, Center for Environmental Medicine, Asthma and Lung Biology,
Univ. of North Carolina, Chapel Hill, North Carolina, 2006-present
Assistant Professor, Department of Biostatistics, Univ. of North Carolina at Chapel Hill,
Chapel Hill, North Carolina, 1997-2003
Visiting Assistant Professor, Department of Biostatistics, Univ. of North Carolina at
Chapel Hill, 1996 - 1997
Mathematical Statistician, National Institute of Environmental Health Sciences, Research
Triangle Park, North Carolina, 1996 - 1997
IRTA Fellow, Biostatistics Branch, National Institute of Environmental Health Sciences,
Research Triangle Park, North Carolina, Jan. 1995 - Sep. 1996
Junior Fellow, National Institute of Statistical Sciences, Research Triangle Park, North
Carolina, April 1993 - Dec. 1994
Teaching/Research Assistant, Department of Statistics, Univ. of Washington, Seattle,
Washington, Sep. 1988 - Dec. 1992

HORNORS and AWARDS:

Elected Fellow: American Statistical Association(2010)
Society of Toxicology Award for Outstanding Presentation in Risk Assessment, Annual Meeting of the Society of Toxicology, Baltimore, Maryland, March 1995.
National Institute of Health Intramural Research Training Award (1995-1996).

SOCIETY MEMBERSHIPS:

American Statistical Association (ASA)
International Biometric Society (ENAR)
Institute of Mathematical Statistics (IMS)

RESEARCH INTERESTS:

- Environmental statistics; Outcome dependent sampling, Survival analysis; Measurement error problems; Biased sampling; Comparative effective research, Electronical Medical data analysis; Epidemiologic methods; Translational study; Pulmonary disease; Human fertility; Pregnancy outcomes; Early childhood development; Toxicological risk assessment.

RESEARCH PUBLICATIONS

- **Peer-reviewed Publications (* represents a Biostatistics doctoral students or post-doctoral fellows, or co-senior authors)**

1. Yu, J., and Zhou, H. (2016): "Outcome-Dependent Sampling Design and Interface for Cox's Proportional Hazards model". *Journal of Statistical Planning and Interface* (in press)
2. Zou, B., Zou, F., Shuster, J., Tighe, P., Koch, G., and Zhou, H. (2016): "On Variance Estimate for Covariate Adjustment By Propensity Score Analysis". *Statistics in Medicine* (in press)
3. Qin, G. and Zhou, H. (2016): "Estimation of a partially linear additive model for data from an outcome-dependent sampling design with a continuous outcome". *Biostatistics* (in press)
4. *Ding, J., Lu, T.S., Cai, J. and Zhou, H. (2016): "Recent progresses in outcome-dependent sampling with failure time data". *Lifetime Data Analysis. p 1-26.*
5. *Zhao, Y., Saville, B.R., Zhou, H. and Koch, G.G. (2016): "Sensitivity analysis for missing outcomes in time-to-event data with covariate adjustment". *Journal of Biopharmaceutical Statistics p. 1-11.*
6. Mail, R., Jones, S., Pan, Y., Zhou, H., Jaspers, I., Peden, D.B., Cairns, B.A. and Noah, T.L. (2015): "Association between early airway damage-associated molecular patterns and subsequent bacterial infection in patients with inhalational and burn injury". *American Journal of Physiology - Lung Cellular and Molecular Physiology p L855-L860*

7. Todric, K., Zhou, H., Zhang, H., Mills, K., Peden, D.B., and Hernandez, M.L. (2015): "Body mass index correlates with pollutant-induced interleukin-1beta in sputum and blood". *Annals of Allergy, Asthma and Immunology* p.251-253.
8. Hernandez, M.L., Mills, K., Almond, M., Todoric, K., Aleman, M., Zhang, H., Zhou, H. and Peden, D.. (2015): "IL-1 receptor antagonist reduces endotoxin-induced airway inflammation in healthy volunteers". *Journal of Allergy and Clinical Immunology*, p. 379-385
9. Muller, Meyer, Bauer,Zhou, Zhang, Jones, Letang, Robinette, Noah, and Jaspers (2015): "Effect of broccoli sprouts and live attenuated influenza virus on peripheral blood natural killer cells: a randomized, double-blind study."
10. Aleman, M. M., Mills, K., Almond, M., Todoric, K., Zhang, H., Zhou, H., Peden, D.B. and Hernandez, M. (2015): *Journal of Allergy and Clinical Immunology*, p. 836-837
11. *Yu, J., Liu, Y., Sandler, D. P. and Zhou, H. (2015): "Statistical inference for the additive hazards model under outcome-dependent sampling". *Canadian Journal of Statistics*, p. 436-453
12. *Zou, Jin, Koch, Zhou, Borst, Menon and Shuster (2015): "On model selection for repeated measurement data in clinical studies". *Statistics in Medicine* p. 1621-1633
13. *Zhao Y., Herring, A.H., Zhou, H., Ali, M.W. and Koch, G.G. (2014): "A multiple imputation method for sensitivity analyses of time-to-event data with possibly informative censoring". *Journal of Biopharmaceutical Statistics*, p. 229-253
14. Noah T.L., Zhang H., Zhou H., Glista-Baker E., Muller L., Bauer R.N., Meyer M., Murphy P.C., Jones S., Letang B., Robinette C. and Jaspers I. (2014): "Effect of broccoli sprouts on nasal response to live attenuated influenza virus in smokers: A randomized, double-blind study". *PLoS ONE* (2014) 9,6(e98671).
15. Noah,T. and Zhou, H., PhD3, Claire Chehraazi, MD4, Carole Robinette1, Loretta Muller, PhD5, and Ilona Jaspers, PhD1,2 (2014): "INFLUENZA-INDUCED EOSINOPHIL ACTIVATION AFTER EXPOSURE TO DIESEL EXHAUST IN ALLERGIC HUMAN VOLUNTEERS". *J. A. C. I.*
16. * Yu, Zhou, Liu, Zou, and Willke (2014): "Adjusting Complex Heterogeneity in Treatment Assignment in Observational Studies". *International Journal of International Statistics in Medical Research*.
17. * Ding, J., Zhou, H., Liu, Y., Cai, J., Longnecker, M.(2014): "Estimating Effect of Environmental Contaminants on Womens Subfecundity for the MoBa Study Data with an Outcome-Dependent Sampling Scheme". *Biostatistics* 15, 4, p. 636-650.
18. Calandruccio and Zhou (2014): "Increase in speech recognition due to linguistic mismatch between target and masker speech: monolingual and simultaneous bilingual performance" *Journal of Speech, Language, and Hearing Research* p. 1089-1097.
19. Geiser M., Lay J.C., Bennet W.D., Zhou H., Wang X., Peden D.B. and Alexis N.E. (2013) : "Effects of ex vivo -tocopherol on airway macrophage function in healthy and mild allergic asthmatics". *Journal of Innate Immunity*. 5,6, p. 613-624
20. Sturmer, Marquis, Zhou, Meigs, Lim, Londe, Macdonald, Wang, Lavange, Ppate and Buse: (2013) "Cancer Incidence Among Those Initiating Insulin Therapy With Glargine

- Versus Human NPH Insulin”. *Diabetes Care*. 36, 11, p. 3517-3525 published online July 22, 2013.
21. Zhou, Xu, Zeng, and Cai (2014): "Semiparametric Inference for Data with a Continuous Outcome from a Two-Phase Probability Dependent Sampling Scheme". *J. of R. Stat. Assoc.* 76, 1, p. 197-215 **B**. (NIHMS553601)
 22. Jones, Zhou, Ortiz-Pujols, Maile, Herbst, Oyner Jr, Zhang, Kesic, Jaspers, KA. Short, Meyer, Peden, Cairns, and Noah (2013): "Bronchoscopy-Derived Correlates of Lung Injury following Inhalational Injuries: A Prospective Observational Study". *PLOS ONE*. 8,5, e64250.
 23. Zamboni, Caron, Lay, Fong, La-Beck, Kumar, Newman, Zhou, Monaco, Clarke-Pearson, Brewster, Van Le, Bae-Jump, and Gehrig (2014): "Translational Studies of Phenotypic Probes for the Mononuclear Phagocyte System and Liposomal Pharmacology". *Clinical Pharmacology & Therapeutics* 347, 3, p. 599-606.
 24. Hernandez, Wagner, Kala, Mills, Wells, Alexis, Lay, Jiang, Zhang; Zhou, and Peden (2013): "Vitamin E Gamma-tocopherol Reduces Airway Neutrophil Recruitment after Inhaled Endotoxin Challenge in Rats and in Healthy Volunteers". *Free Radical Biology & Medicine* 60, p. 56-62.
 25. Alexis, Lay, Zhou, Kim, Hernandez, Kehrl, Hazuch, Devlin, Diaz-Sanchez, and Peden (2013): "The Glutathione-S-Transferase null genotype and increased neutrophil response to low level ozone (0.06 ppm)" *J Allergy Clin Immun* 131, 2, p. 610-612
 26. Noah, Zhou, and Jaspers (2012): "Alteration of the nasal responses to influenza virus by tobacco smoke". *Current Opinion in Allergy and Clinical Immunology*. 12, 1, p. 24-31
 27. Hernandez M.L., Herbst M., Lay J.C., Alexis N.E., Brickey W.J., Ting J.P.Y., Zhou H. and Peden D.B. (2012): "Atopic asthmatic patients have reduced airway inflammatory cell recruitment after inhaled endotoxin challenge compared with healthy volunteers". *Journal of Allergy and Clinical Immunology*. 130
 28. *Wang X., Ma J., George S. and Zhou H. (2012): "Estimation of AUC or partial AUC under test-result-dependent sampling". *Statistics in Biopharmaceutical Research*. 4, 4, p. 313-323
 29. *Ding, J. Lu, T. and Zhou, H.: (2012) "Outcome dependent sampling models". *Encyclopedia of Environmetrics*
 30. Hernandez, Brickey, Alexis, Fry, Rager, Zhou, Ting, Zhou, and Peden (2012): "Airway cells from atopic asthmatic patients exposed to ozone display an enhanced innate immune gene profile". *J ALLERGY CLIN IMMUNOL* 129 doi:10.1016/j.jaci.2011.11.007
 31. Fry, Rager, Zhou, Zou, Brickey, Ting, Lay, Peden, and Alexis (2012): "Individuals with increased inflammatory response to ozone demonstrate muted signaling of immune cell trafficking pathways". *Respiratory Research*, pg. 13 2012, 13:89.
 32. *Wang, X. and Zhou, H. (2012): "Mixed Effect Regression Analysis for a Cluster Based Two-Stage Outcome-Auxiliary-Dependent Sampling Design with a Continuous Outcome". *Biostatistics*, 13,4, p. 650-664 doi: 10.1093/biostatistics/kxs013
 33. *Wang, XF. Wu, Y., and Zhou, H. (2012): "Outcome- and auxiliary-dependent subsampling and its statistical inference". *J. Bioph. Stat.* 19:1132-1150

34. Liu, YY., Yuan, Z. and Zhou, H., Cai, J. (2012): “Marginal Hazard Regression for Correlated Failure Time Data with Auxiliary Covariates”. *Life Time Data Analysis* pg. 18. 18: 116-138.
35. *Ding, J., Liu, YY., Peden, D., Kleeberger, S., and Zhou, H (2012): “Regression Analysis for a Summed Missing Data Problem under an Outcome-Dependent Sampling Scheme”. *The Canadian Journal of Statistics*, p. 282-303. vol 40: 282-303.
36. Noah, T., Zhou, H., Zhang, H., Ilona, J. (2012): “Diesel exhaust exposure and nasal response to attenuated influenza in normal and allergic volunteer”. *American Journal of Respiratory and Critical Care Medicine*. vol 185: 179-185.
37. Noah, TL., Zhou, H., and Jaspers, I.(2012): “Alternation of the nasal responses to influenza virus by tobacco smoke”. *J. of Allergy and Clinical Immunology* 2012, 12:2431
38. Liao, D., Shaffer, M.L., and Zhou, H. (2011): “Acute Effects of Fine Particulate Air Pollution on Cardiac Electrophysiology”. *Environmental Health and Air Pollution case Studies* ISBN: 978-953-307-525-9 (editor Anca, Moldoreana)
39. Noah TL, Horvath K, , Robinette C., Zhang H., Zhou H., Diaz-Sanchez D., and Jaspers, I. (2011): “Effect of short term diesel exhaust exposure on nasal response to influenza in allergic rhinitis”. *Am. J. Respir. Crit. Care Med*, doi:10.1164/rccm.201103-0465OC.
40. Zhou, You, Qin, and Longnecker, M.P. (2011): “A partially linear regression model for data from an outcome-dependent sampling design”. *Journal of the Royal Statistical Society. Series C: Applied Statistics* p. 559-574
41. Dillon, MA., Harris, H., Hernandez, ML., Zou, B, Reed, B, Bromberg, PA., Devlin, RB., Diaz-Sanchez, D, Kleeberger, S., Zhou, H., Lay, JC., Alexis, AE. and Peden, DB. (2011): “Enhancement of systemic and sputum granulocyte response to inhaled endotoxin in persons with the GSTM1 null genotype”. *Occupation Environmet Medicine* p. 783-785 vol. 68
42. Horvath, KM., Herbst, M., Zhou, H., Zhang, H., Noah, T. and Jaspers, I. (2011): “Nasal lavage natural killer cell function is suppressed in smokers after live attenuated influenza virus”. *Respiratory Research* 2011, 12:102.
43. Doreswamy, V., Alexis, NE., Zhou, H., and Peden, DB. (2011): “Nasal PMN response to repeated challenge with endotoxin in healthy volunteers”. *Inhalation Toxicology*; 23(3): 142-147.
44. Zhou, H., Zou, B., Huzucha, M., and Carson, J. (2011): “Nasal Nitric Oxide and Lifestyle Exposure to Tobacco Smoke”. *Annals of Otology, Rhinology & Laryngology* , 120: 455-459. (NIHMS#: 329674)
45. Harris, B., Lay, J., Zhou, H., Bromberg, P., Alexis, N., Kherl, H., Devlin, R., Peden, D. (2011): “Acute inhalational challenge of 20,000 units of endotoxin decreases heart rate variability”. (revision)
46. Zhou, H., You, J., Qin, G., and Longnecker, M. P. (2011): “A partially linear regression model for data from an outcome-dependent sampling design”. *J. of Royal Stat. Soc. C*, 60: 559-574. (NIHMS#: 301012)
47. Zhou, H., Wu, Y., Liu, Y., and Cai, J. (2011): “Semiparametric inference for a 2-stage outcome-auxiliary dependent sampling design with continuous outcome”. *Biostatistics*, 12: 521-534. (PMC#: 3114654)

48. Noah TL, Zhou H, Monaco J, Horvath K, Herbst M, Jaspers I. (2011): "Tobacco smoke exposure and altered nasal responses to live attenuated influenza virus". *Environ Health Perspect* 2011 January; 119(1): 78-83. (PMC#: 3018504)
49. Qin, G. and Zhou, H. (2011): "Partial linear inference for a two-stage outcome-dependent sampling design with a continuous outcome". *Biostatistics*, 12: 506-520. (PMC#: 3114650)
50. Zhou, H., Qin, G., Longnecker, MP. (2011): "A Partial Linear Model in the Outcome Dependent Sampling Setting to Evaluate the Effect of Prenatal PCB Exposure on Cognitive Function in Children". *Biometrics* p. 876-885, 67: 876-885. (NIHMS#: 301012)
51. Zhou, H., Song, R., Wu, Y., and Qin, J. (2011): "Statistical inference for a two-stage outcome-dependent sampling design with a continuous outcome". *Biometrics*, 67: 194-202. (NIHMS#: 203208)
52. Zhou, H., You, J. and Zhou, B. (2010): "Statistical inference for fixed-effects partially linear regression models with errors in variability". *Statistical Papers*, 51, 3: p. 629-650
53. *Liu, Y., Wu, Y., Cai, J., and Zhou, H. (2010): "Additive-multiplicative rates model for recurrent events", *Lifetime Data Analysis*. 16: 353-373. NIHMSID327688. PMC3199147
54. *You, J, Zhou, B., and Zhou, H. (2010): "Statistical inference for seemingly unrelated varying-coefficient nonparametric regression models". *International J. of Stat. and Managment System*. 2010. V.5, N. 1-2, 59-83. (NIHMS# 329678)
55. Zhou, H., Lu, TS, Brighton, L., Hazucha, M., Jaspers, I., and Carson, JL. (2010): "Phenotypic and Physiologic Variability in Nasal Epithelium Cultured from Smokers and Non-Smokers Exposed to Secondhand Tobacco Smoke". *In Vitro Cellular & Developmental Biology - Animal*, Volume 46, Number 7, 606-612. (NIHMS#: 329682)
56. Liu, Y., Wu, Y., and Zhou, H. (2010): "Multivariate failure times regression with a continuous auxiliary covariate". *Journal of Multivariate Analysis* 101, Issue 3, March 2010, 679-691. (NIHMS#: 150138)
57. *Wang, X. and Zhou, H. (2010): "Design and Inference for Cancer Biomarker Validation with an Outcome- and Auxiliary-Dependent Subsampling". *Biometrics*, 66: 502-511. (PMC#: 2891224)
58. Gaines, L., Fent, K., Flack, S., Thomasen, J., Ball, L., Zhou, H., Whittaker, S. and Nylander-French, L. (2010): "Effect of creatinine and specific gravity normalization on urinary biomarker 1,6-hexamethylene diamine". *J. Environ. Monit.*, 2010, 12, 591-599.
59. Zhou, H., Alexis, N.E., Almond, M., Donohue, J., LaForce, C., Bromberg, P.A., and Peden, D.B. (2009): "Influence of C-159T SNP of the CD14 gene promoter on lung function in smokers". *Respiratory Medicine* 103, 9: pg. 1358-1365.
60. Zhou, H., Wang, X., Brighton, L., Hazucha, M., Jaspers, I. and Carson, J.L. (2009): "Increased nasal epithelial ciliary beat frequency associated with lifestyle tobacco smoke exposure". *Inhalation Toxicology* 21, 10, p. 875-885.
61. Liu, Y., Zhou, H. and Cai, J. (2009): "Estimated pseudopartial-likelihood method for correlated failure time data with auxiliary covariates". *Biometrics* 21, 10: p. 875-881
62. Graff, D.W., Cascio, W.E., Rappold, A., Zhou, H., Huang, Y.C.T. and Devlin, R.B. (2009): "Environmental Health Perspectives". 117, 7, p. 1089-1094.

63. Zou, F., Huang, H., Cheng, F. Zhou, H. and Hoeschele, I. (2009): "Gaussian process based Bayesian semiparametric quantitative trait loci interval mapping". *Biometrics*, 66: 222-232. (PMC#: 2875332)
64. Zhou, Y., Zhou, H. and Ma, Y. (2009): "Smooth Estimation of ROC Curve in the Presence of Auxiliary Information". *Journal of Systems Science and Complexity*, 24, 5, p. 919-944.
65. Wang, X. Wu, Y., and Zhou, H. (2009): "Outcome and Auxiliary-Dependent Subsampling and Its Statistical Inference". *Journal of Biopharmaceutical Statistics*. 19, 6. 1132-1150. (PMC# 2830801)
66. Alexis, N.E., Zhou, H., Lay, J.C., Harris, B., Hernandez, M.L., Lu, T.S., Bromberg, P.A., Diaz-Sanchez, D., Devlin, R.B., Kleeberger, S.R. and Peden, D.B. (2009): "The glutathione-S-transferase Mu 1 null genotype modulates ozone-induced airway inflammation in human subjects". *Journal of Allergy and Clinical Immunology* pg. 124
67. Zhu, H., Zhou, H., Chen, J., Li, Y., Lieberman, J. and Styner, M. (2009): "Adjusted exponentially tilted likelihood with applications to brain morphology". *Biometrics*, 65: 919-927. (NIHMS# 48028)
68. Alexis, NE, Zhou, H.; Lay, JC., Harris, B., Hernandez, ML, Lu, TS. Bromberg, PA, Diaz-Sanchez, D., Devlin, RB, Kleeberger, SR, Peden, DB (2009): "The Glutathione-S-Transferase Mu 1 null genotype modulates ozone-induced airway inflammation in humans". *Journal of Allergy and Clinical Immunology* 124:1222-8 e5..
69. Liu, Y., Cai, j., and Zhou, H. (2009): "Estimated pseudo-partial-likelihood method for correlated failure time data with auxiliary covariates". *Biometrics* 65, 4. 1184-1193. (PMC#: 2819485)
70. Zhou, H., Alexis, N., Almond, M., Donohue, J., LaForce, C., Bromberg, P., Peden, D.: "Influence of C-159T SNP of the CD14 gene promoter on lung function in smokers". *Respiratory Medicine*, Volume 103, Issue 9: 1358-1365. (PMC#: 3178042)
71. Hernandez, M., Zhou, H., Robinette, C., Zhou, B., Hatch, G., Alexis, N., and Peden, D. (2009): "Combination treatment with high dose vitamin C and alpha tocopherol does not enhance respiratory-tract lining fluid vitamin C levels in asthmatics". *Inhal Toxicol.*; 21(3):173-81.
72. D. W. Graff, W. E. Cascio, A. Rappold, H. Zhou, Y. T. Huang, R. B. Devlin (2009): "Exposure to Concentrated Coarse Air Pollution Particles Causes Mild Cardiopulmonary Effects in Healthy Young Adults" *Environmental Health Perspectives*. v. 117. 1089-1094.
73. Zhou, H., Brighton, L., Hazucha, M., and Carson, J.L. (2009): "Persistent upregulation of nasal epithelial ciliary beat frequency in smokers and non-smokers exposed to environmental tobacco smoke". *Inhalation Toxicology*. 21(10): 875-881. (PMC#: 2721908)
74. Wang, X., Wu, Y., and Zhou, H. (2009): "Outcome- and auxiliary-dependent subsampling and its statistical inference". *Journal of Biopharmaceutical Statistics*. 19,6, p. 1132-1150
75. *Song, R. Zhou, H., and Kosorok, M. (2009): "A note on semiparametric efficient inference for two-stage outcome-dependent-sampling with a continuous outcome". *Biometrika*. March 2009; 96: 221 - 228. (PMC#: 2761000)

76. Zhu, H., Zhou, H., Chen, J., Li, Y., and Styner, M. (2009): "Statistical Analysis of Neuroimaging Data Using Adjusted Exponentially Tilted Likelihood". *Biometrics* 65, 3. 919-927. (NIHMS #48208)
77. *You, J. and **Zhou**, H. (2009): "Statistical inference for regression models with covariate measurement error and auxiliary information". *International Journal of Statistics and Management System* Vol.4, No. 1-2, 96-123. (NIHMS#: 329684)
78. Liao, D., Mo, J., Duan, Y., Klein, R., Scott, I.U., Huang, K.A., and Zhou, H. (2008): "Is Age-Related Macular Degeneration Associated with Stroke Among Elderly Americans?" *The Open Ophthalmology Journal*, 2: 37-42.
79. Cai, J., Fan, J., Jiang, J. and **Zhou**, H. (2008): "Partially Linear Hazard Regression with Varying-Coefficients for Multivariate Survival Data". *J. Royal Stat. Society*, **B** 70, Part 1, 141-158.
80. *You, J. and **Zhou**, H. (2008): "A Two-Stage Approach for Semilinear In-Slide Models". *Journal of Multivariate Analysis* 99, 1610-1634. (PMC#: 2756113)
81. **Zhou**, H. and You, J.H. (2007): "Statistical inference for a semiparametric measurement error regression model with heteroscedastic errors". *Journal of Statistical Planning and Inference*. 137, 2263-2276.
82. *You, J. and **Zhou**, H. (2007): "On semiparametric EV models with serial correlated errors in both regression models and mismeasured covariates". *Scandinavian Journal of Statistics*. 365-383.
83. **Zhou**, H. and You, J. (2007): "Semiparametric Methods for Data from an Outcome-Dependent Sampling Scheme". *Quantitative Medical Data Analysis Using Mathematical Tools and Statistical Techniques* (D. Hong and Y. Shyr Eds.), World Scientific Publications, Singapore, 93-110.
84. Cai, J., Fan, J., Jiang, J. and **Zhou**, H. (2007). "Partially Linear Hazard Regression for Multivariate Survival Data". *J. Am. Stat. Assoc.*, 102, 538-551.
85. **Zhou**, H. and You, J.H. (2007). "Statistical inference for a Semiparametric Measurement Error Regression Models with heteroscedastic errors". *Statistical Sinica* 137: 2263-2276.
86. *Jiang, J. and **Zhou**, H. (2007). "Additive Hazards Regression with Auxiliary Covariates". *Biometrika*, 94, 359-369.
87. **Zhou**, H., Chen, J., Rissanen, TH, Korrick, SA, Hu, H., Salonen, JT, and Longnecker, M. P.(2007): "Outcome dependent sampling: an efficient sampling and inference procedure for studies with a continuous outcome". *Epidemiology*. 18(4): 461-468.
88. Cai, J., Fan, J., **Zhou**, H. and Zhou, Y. (2007): "Hazard models with varying coefficients for Multivariate Failure Time Data". *Annals of Statistics* 35:324-354.
89. *Jiang, J., **Zhou**, H., X. Jiang, and J. Peng. (2007): "Generalized Likelihood Ratio Tests for the Structures of Semiparametric Additive Models". *Canadian Journal of Statistics*, 35(3), 381-398.
90. *You, J. and **Zhou**, H. (2007): "Two-stage efficient estimation of longitudinal nonparametric additive models". *Statistics and Probability Letters*. 77, 1666-1675.

91. **Zhou**, H. (2006): “Statistical models for human fecundability”. *Statistical Methods in Medical Research* 15: 181-194.
92. *Chen, J., Fan, J., Li, K. H., and **Zhou**, H. (2006): “Local quasi-likelihood estimation with data missing at random”. *Statistica Sinica* 16, 1071-1100.
93. *Wang, X. and **Zhou**, H. (2006): “A Semiparametric Empirical Likelihood Method For Biased Sampling Schemes In Epidemiologic Studies With Auxiliary Covariates”. *Biometrics* 62, 1149-1160.
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96. Longnecker MP, Klebanoff MA, Dunson DB, Guo X, Chen Z, **Zhou** H, Brock JW. (2005): “Maternal serum level of the DDT metabolite DDE in relation to fetal loss in previous pregnancies”. *Environ. Res*; 97(2),127:33.
97. Gray KA, Klebanoff MA, Brock JW, **Zhou** H, Darden R, Needham L, Longnecker MP. (2005): “In utero exposure to background levels of polychlorinated biphenyls and cognitive functioning among school-age children”. *Am J Epidemiol.*; 162(1):17-26.
98. *Weaver, M. and **Zhou**, H. (2005): “An Estimated Likelihood Method for Continuous Outcome Regression Models with Outcome-Dependent Subsampling”. *J. Am. Stat. Assoc.* 100: 459-469.
99. Cai, J., Fan, J., Li, R. and **Zhou**, H. (2005): “Model Selection for Multivariate Failure Time Data”. *Biometrika* 92 303-316.
100. *Chen, J., Chou, Wu, **Zhou**, H. (2004): “Designing acceptance sampling schemes for life testing with mixed censoring”. *Naval Research Logistics* 51: 597-612.
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102. *Chen, J., Cai, J. and **Zhou**, H. (2004): “Two-Step Estimation for A Generalized Linear Mixed Model with Auxiliary Covariates”. *Statistica Sinica* 14, 361-376.
103. Longnecker, M. P., **Zhou**, H., Klebanoff, M. A., Brock, J.W. (2003): “An unexpected distribution of sodium concentration in serum specimens stored for more than 30 years.” *Ann Epidemiology*; 13: 178-181.
104. Daniels, J., Longnecker, M. P., Klebanoff, M. A., Gray, K. A., Brock, J. W., **Zhou**, H., and Needham, L. L. (2003): “Prenatal exposure to low-level polychlorinated biphenyls in relation to mental and motor development at 8 months”. *Am. J. of Epidemiol.* Mar 15;157(6):485-492.
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135. **Zhou**, H. and Pepe, M.S (1995): “Auxiliary covariate data in failure time regression”. *Biometrika* 83, 139-149.

TEACHING AND MENTORING

– Classroom Teaching:

- * Advanced Linear Models (BIOS 762: Fall 2010, 2011, 2012, 2013, average about 23 Ph.D. students).

- * Applied Stochastic Processes (BIOS 167: Spring 1999, 2000, 2001, 2002, 2003);
- * Introductory Survival Analysis (BIOS 680: Spring 2005, 2006, 2007, 2008, with 18, 17, 15, and 15 students, respectively).
- * Principles of Experimental Analysis (BIOS 145, Spring 1997)

– **Doctoral Student Advisory :**

- Mark Weaver (PhD), “Statistical inferences under outcome dependent sampling design”, Biostatistics, 1998-2001. Formerly Assistant Prof. at UNC Biostatistics. Currently At Family Health International.
- Rosalie Dominik (DrPH), “Statistical models for assessing contraceptive efficacy and efficiency”, Biostatistics, 1998-2000 (Co-adviser). (Recipient of the 2000 School of Public Health *Bernard G. Greenberg, Award* for Excellence in Doctoral Research and recipient of 2001 *Barry H. Margolin Award* for Excellence in Doctoral Research in Department of Biostatistics). Currently Associate Professor at UNC Medical School.
- Xiaofei Wang (PhD), “Complex sampling and its inference”. Biostatistics, 2000-2003. Currently Assistant Professor at Duke Biostatistics.
- Xiaoyan Wang (PhD, co-adviser), “Semiparametric Regression Models for Recurrent and Terminal Event Data”. Biostatistics, 2005 - present
- Tsui-shan Lu (PhD), “Multivariate Outcome-dependent sampling designs and inferences”. Department of Biostatistics, 2005 - 2009
- Karen Cai (DrPh), Biostatistics, 2007- present
- Baiming Zou (PhD), Biostatistics, 2008- 2013
- Hongao Zhang (PhD, co-advisor), Biostatistics, 2009- 2014
- Beth Horton (Ph.D), Biostatistics, 2009- 2013
- Yinghao Pan (Ph.D), Biostatistics, 2014- present
- Wan Suk Choi (Ph.D), Biostatistics, 2013- present
- Ting Wang (Ph.D), Biostatistics, 2015- present
- Fan Zhou (Ph.D), Biostatistics, 2015- present

– **Master Student Advisory :**

- J. Park (MS), “Statistical inferences under outcome dependent sampling design”, Biostatistics, 2005-2006.
- Jieni Xu (MS), “Statistical inferences under outcome dependent sampling design”, Biostatistics, 2014-2015.

– **Post Doctoral Fellow Advisory:**

- | | |
|----------------------------|-------------------------|
| Jianwei Chen (2000-2002) | Jinhong You (2003-2006) |
| Jianchen Jiang (2003-2005) | Rui Song (2006-2007) |
| Guoyou Qin (2008-2009) | Wangli Xu (2009-2010) |
| Jieli Ding (2009-2011) | Jichang Yu (2010-2012) |
| Yuanshan Wu (2008-2010) | Ying Yan (2014-2015) |

Qingning Zhou (2015-2017)

– **Dissertation Committee Membership Served:**

Amy Richardson (Ph.D.), Department of Biostatistics, 2012-.
Zhaoyu Yin (Ph.D.), Department of Biostatistics, 2012-.
Zachary Robbins (Ph.D.), Department of Environmental Sciences, 2013-.
Fei Zou's Student (Ph.D.), Department of Biostatistics, 20013-.
Yue Zhao (Ph.D.), Department of Biostatistics, 2008-2013.
Yi Gong (Ph.D.), Department of Biostatistics, 2008-2012.
Ramon Garcia (Ph.D.), Department of Biostatistics, 2005-2009.
Chris Slaughter (Ph.D.), Department of Biostatistics, 2005-2007.
Shankar Viswanathan (DrPH), Department of Biostatistics, 2005-present.
Sandy Santucci (Ph.D.), School of Nursing, 2007-present.
Katie Horvath (Ph.D.), The Curriculum of Toxicology, 2007-present.
Linda Gaines (Ph.D.), Environmental Science & Engineering Dept., 2007-present.
Emily Kistner (Ph.D.), Department of Biostatistics, 2003-2005.
jamie Biglow (Ph.D.), Department of Biostatistics, 2003-2006.
Brian Neelon (Ph.D.), Department of Biostatistics, 2002-2004.
Paivi Salo (Ph.D.), Department of Environmental Health Sciences, 2000-2001.
Wendy Greene (Ph.D.), Department of Biostatistics, 1999-2000.
Lisa Pompeii (Ph.D.), Department of Epidemiology, 1998-2000.
Tracy Herrmann (Ph.D.), Department of Nutrition, 1998-2000.
Terry Cox (Ph.D.), Department of Biostatistics, 1998-1999.
Frank Ye (Ph.D.), Department of Biostatistics, 1999-2000.

– **MS Master Papers:**

Christin Much (advisor), Department of Biostatistics, 2012-current.
Julie Aldridge (Reader), Department of Biostatistics, 2007-2008.
J. Park (Advisor), Department of Biostatistics, 2005-2006.
Jennifer Marcello (Reader), Department of Biostatistics, 2006.
Jerry Watkins (Reader), Department of Statistics, 2005-2006.
Miguel Villarreal (Reader), Department of Biostatistics, 2005-2006.
(Reader), Department of Biostatistics, 1999-2000.

– **Graduate Students Advised:**

The names of students who were supported at various times either by my grants or by the funds I received from serving as a co-investigator are:

Hongtao Zhang (Ph.D. student). Biostatistics, 2009-present.
Jingxiang Chen (Ph.D. student). Biostatistics, 2011-2013.
Ruoqing Zhu (Ph.D. student). Biostatistics, 2008-2009.
Baiming Zou (Ph.D. student). Biostatistics, 2008-present.
David Kessler (Ph.D. student). Biostatistics, 2008-2008.

Ben Saville (Ph.D. student). Biostatistics, 2008-2008.
 Zhengzheng Tang (Ph.D. student). Biostatistics, 2007-present.
 Bingqing Zhou (Ph.D. student). Biostatistics, 2006-2008.
 Yiyun Tang (PhD student). Biostatistics, 2006-2008.
 Dustin Long (PhD student). Biostatistics, 2007-2008.
 Jaeun Choi (PhD) (PhD student). Biostatistics, 2007.
 Sangwook Kang (PhD student). Biostatistics, 2007-2008.
 Mark Weaver (PhD student). Biostatistics, 2001.
 Changfu Xiao (MS student). Biostatistics, 2005-2006.
 Wen Gu (MS student). Biostatistics, 2003-2004.
 Jianhua Hu (Ph.D student). Biostatistics, 2000-2001.
 Yan Fang (MS student). Biostatistics, 1999-2000.
 Hong Liu (MS student). Biostatistics, 2000.
 Hongyang Zhang (MS student). Biostatistics, 1997.
 Jingjing Wu (MS student). Biostatistics, 2002-2003

CONTRACTS & GRANTS:

1. Principal Investigator on Grants:

- R01 ES021900, "Statistical Methods for Outcome-Dependent Sampling", (PI: Zhou), National Institute of Environmental Health Sciences (2013-2017), total \$1,197,111.00.
- "Risks of Cancers in Relation to Insulin Therapy in People with Diabetes". (PI: Zhou). Total Funding: \$3,822,155 Duration: 9/1/2009 - 12/31/2012
- R01 CA079949-07 "Statistical methods for biased sampling". (PI: Zhou), National Cancer Institute (2008-2012) total \$758,918.
- R01 CA079949-04 "Statistical methods for biased sampling", (PI: Zhou), National Cancer Institute (2004-2007) total \$650,942.
- R01 CA79949-01 "Statistical methods for biased sampling". (PI: Zhou), National Cancer Institute (1999-2003), total \$294,355.
- Inter Government Personal Act YI900037 National Institute of Environmental Health Sciences (1997-2004, 40% effort), total direct cost \$310,000.
- Junior Faculty Development Award, University of North Carolina at Chapel Hill (1999-2000), direct cost \$5000

2. Co-Investigator on Grants:

- R01 (PI Savitz) "Influence of iron, zinc and foliate on preterm delivery". National Institute of Health (1998-2000).
- P30 ES10126-01A1 (PI Swenberg) Center for Environmental Health. National Inst Envr Health Sciences (10/01/2000 - 3/31/10)
- R01 CA92571-01 (PI Cai) "Semi-parametric methods for multivariate survival data". National Institute of Health (07/01/2001 - 6/30/05).

- Center for Environmental Medicine, Asthma and Lung Biology (PI Zhou) 50% salary support as Biostatistics Director (2006 - Current).
- R21 HL089422-01 (PI Chen) “Environmental Determinants of Sleep Disturbance: Role of Ambient Air Pollution”. 10% effort. (2007 - 2009).

PROFESSIONAL SERVICE:

Associate Editor: Biometrics (2000-03, 2003-06, 2006-08, 2008-10, 2010-2012, 2012-2014 ,2014-2016)

Board Member: Regional Advisory Board of the International Biometrics Society (ENAR) (2000-2002)

ENAR Student Travel Award Committee (2008-2010)

Meeting/Session Organizer: IBS/ENAR Invited Session “Statistical methods for reproductive health”. March 17-20, 2002 Arlington, VA
 JSM Invited Session (#20015), “Session on Outcome-Dependent Sampling in Epidemiology Studies” Invited Session by Epidemiology Section of ASA. Aug., 2004, Toronto, Canada.
 JSM Invited Session (#201177), “Recent Development in - Nonparametric Survival Analysis Methods” Invited Session ASA. August, 2006, Seattle.

ICSA Invited Session, “Outcome dependent sampling” ICSA. June, 2007, Raleigh, NC.

ICSA Invited Session, “Statistical Methods in Epidemiology Research”. ICSA. June, 2007, Raleigh, NC.

JSM invited Session, “Comparative effective research and observational study”. JSM. Aug, 2013, Ontario, Canada.

NIH Grant Review Committee: NIEHS Special Emphasis Panel/Initial Review Group, ZES1 LWJ-B (MM) (S). 2004.

NIGMS Minority Biomedical Research Support (MBRS), 2006

Other Federal and State Expert Panels: USDA’s Food Safety and Inspection Service (FSIS) risk assessment expert panel for comparative risk assessment for *Listeria monocytogenes* (Lm) in ready-to-eat meat and poultry products. 2007.

USDA’s Food Safety and Inspection Service (FSIS) risk assessment expert panel for comparative risk assessment for a risk-based sampling algorithm for /*E. coli*/ O157:H7 in ground beef and trim. 2007

Health Effect Institute
assessment effects of emissions from a new diesel engine
2011

The State of Pennsylvania:
Department of Health Pregnancy Outcomes Expert Panel
Nov. 8-10, Philadelphia, PA, 2005

Referee for: Biometrics, Biometrika, Drug Information, J. of Biopharma. Statistics,
J. of American Statistical Asso., J. of Royal Stat. Society,
Statistics in Medicine, Statistica Sinica, Lifetime Data Analysis,
American J. of Epidemiology, Annals of Statistics.

University Service:

UNC SPH Appointment and Promotion Comm.	School of Public Health, 2013-current
UNC Public Heal-Nursing IRB ,	School of Public Health, 2009-2012
Web Comm.,	Department of Biostatistics, 2013-current
Chair, Strategic Planning Comm.,	Department of Biostatistics, 2008-2012
Chair, Communication Committee	Department of Biostatistics, 2008- 2012
Chair, Seminar Committee,	Department of Biostatistics, 1998-2001
Chair, MS Exam Committee	Department of Biostatistics, 2003- 2008
MS Exam Committee	Department of Biostatistics, 2003- present
ad hoc Space Allocation,	Department of Biostatistics, 2001
Graduate Study Committee,	Department of Biostatistics, 1997-1998
Self Study Committee,	Department of Biostatistics, 1997-1998
Faculty Search Committee,	Department of Biostatistics, 1999-2000
Faculty Search Committee,	Department of Biostatistics, 2005-2006
ENVR Dept Chair Search Comm.,	School of Public Health, 2005-2006