

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
MS (1990) 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, 2006-2020
Director, Molecular Analysis and Statistical Support Core, Center for Environmental Health and Suscept
Univ. of North Carolina, Chapel Hill, North Carolina, 2017-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
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 postdoctoral fellows, or co-senior authors)**
 1. Schworer, S.A., Hinderliter, A.L., Caughey, M.C., Robinette, C., Chason, K.D., Li, H., **Zhou, H.**, Sood, A.K., Burbank, A.J., Peden, D.B., Hernandez, M.L. (2024). Inhaled endotoxin induces a systemic neutrophil response without affecting cardiovascular measures in a randomized cross-over exposure study. *Inhalation Toxicology*, 36(2), 100-105. PMID: 38368594.
 2. Peden, D.B., Almond, M., Brooks, C., Robinette, C., Wells, H., Burbank, A., Hernandez, C., Hinderliter, A., Caughey, M., Jiang, Q., Wang, Q., Li, H., **Zhou, H.**, Alexis, N. (2023). A pilot randomized clinical trial of gamma tocopherol supplementation on wood smoke induced neutrophilic and eosinophilic airway inflammation. *The Journal of Allergy and Clinical Immunology*, in press.
 3. Schworer, S.A., Chason, K.D., Chen, G., Chen, J., **Zhou, H.**, Burbank, A.J., Kesic, M.J., Hernandez, M.L. (2023). IL-1 receptor antagonist attenuates proinflammatory responses to rhinovirus in airway epithelium. *The Journal of Allergy and Clinical Immunology*, 151(6), 1577-1584. PMC10257744.
 4. Yan, F., Liu, Y., Cai, J., **Zhou, H.** (2022). Estimated quadratic inference function for correlated failure time data. *Biometrics*, 79(2), 1145-1158. PMC9365883.
 5. Mahung, C., Stepp, W.H., Long, C., Malfitano, M., Saklayici, I., Wallet, S.M., Zhou, L.Y., **Zhou, H.**, Cairns, B.A., Maile, R. (2022). Early expression of IL-10, IL-12, ARG1 and NOS2 genes in peripheral blood mononuclear cells synergistically correlate with patient outcome after burn injury. *The Journal of Trauma and Acute Care Surgery*, 93(5), 702-711. PMC9522922.

6. Schworer, S., Chason, K., Chen, J., **Zhou, H.**, Chen, G., Hernandez, M. (2022). Anakinra attenuates epithelial-derived pro-inflammatory cytokine release after rhinovirus infection. *Journal of Allergy and Clinical Immunology*, 149(2), AB53. doi: 10.1016/j.jaci.2021.12.204.
7. Burbank, A.J., Schworer, S.A., Sood, A., Almond, M., Chason, K., Bean, N., **Zhou, H.**, Hernandez, M.L. (2021). Airway IL-1 β associates with IL-5 production following dust mite allergen inhalation in humans. *Respiratory Research*, 22(1), 309. PMC8649318.
8. Yan, F., Zhu, L., Liu, Y., Cai, J., **Zhou, H.** (2021). Semiparametric regression based on quadratic inference function for multivariate failure time data with auxiliary information. *Lifetime Data Analysis*, 27(2), 269-299. PMC7943434.
9. *Zhang, J., **Zhou, H.**, Liu, Y., Cai, J. (2021). Conditional screening for ultrahigh-dimensional survival data in case-cohort studies. *Lifetime Data Analysis*, 27(4), 632-661. PMC8561435.
10. *Yu, J., **Zhou, H.**, Cai, J. (2021). Accelerated failure time model for data from outcome-dependent sampling. *Lifetime Data Analysis*, 24(1), 15-37. PMC7856009.
11. *Zhou, Q., Cai, J., **Zhou, H.** (2021). Semiparametric regression analysis of case-cohort studies with multiple interval-censored disease outcomes. *Statistics in Medicine*, 40(13), 3106-3123. PMC8691208.
12. Liu, Y., Wu, Y., Zhang, J., **Zhou, H.** (2021). Cox regression analysis for distorted covariates with an unknown distortion function. *Biometrical Journal*, 63(5), 968-983. PMC8691206.
13. Hernandez, M.L., Ivins, S., Chason, K., Burbank, A.J., Rebuli, M.E., Kobernick, A., Schworer, S.A., **Zhou, H.**, Alexis, N.E., Peden, D.B. (2021). Respiratory effects of sedentary ozone exposure at the 70-ppb national ambient air quality standard: a randomized clinical trial. *American Journal of Respiratory and Critical Care Medicine*, 203(7), 910-913. PMC8017578.
14. *Zhang, J., **Zhou, H.**, Liu, Y., Cai, J. (2021). Feature screening for case-cohort studies with failure time outcome. *Scandinavian Journal of Statistics*, 48(1), 349-370. PMC9269537.
15. *Zhou, Q., Cai, J., **Zhou, H.** (2020). Semiparametric inference for a two-stage outcome-dependent sampling design with interval-censored failure time data. *Lifetime Data Analysis*, 26(1), 85-108. PMC6612481.
16. *Lu, T.S., Kang, S., **Zhou, H.** (2020). Semiparametric accelerated failure time modeling for multivariate failure times under multivariate outcome-dependent sampling designs. *Statistics and its Interface*, 13(3), 373-383. doi: 10.4310/SII.2020.v13.n3.a7.
17. *Zhou, F., **Zhou, H.** T. Li, H. Zhu (2020): Analysis of secondary phenotypes in multigroup association studies. *Biosometrics* 76 (2) 606-618.
18. Burbank, A.J., Vadlamudi, A., Mills, K.H., Alt, E.M., Wells, H., **Zhou, H.**, Alexis, N., Hernandez, M.L., Peden, D.B. (2019). The glutathione-S-transferase mu-1 null genotype increases wood smoke-induced airway inflammation. *Journal of Allergy and Clinical Immunology*, 143(6), 2299-2302. PMC6556420.
19. Sood, A.K., Burbank, A.J., Duran, C.G., Enders, K., **Zhou, H.**, Peden, D.B., Hernandez, M.L. (2019). Gamma tocopherol effect on LPS-induced sputum neutrophilia is not

- modified by BMI or GSTM1 genotype. *The Journal of Allergy and Clinical Immunology*, 143(5), 1937-1939. PMC6504592.
20. Rebuli, M.E., Speen, A.M., Martin, E.M., Addo, K.A., Pawlak, E.A., Glista-Baker, E., Robinette, C., **Zhou, H.**, Noah, T.L., Jaspers, I. (2019). Wood smoke exposure alters human inflammatory responses to viral infection in a sex-specific manner. A randomized, placebo-controlled study. *American Journal of Respiratory and Critical Care Medicine*, 199(8), 996-1007. PMC6467301.
 21. *Zhou, F., Li, T., **Zhou, H.**, Zhu, H., Jieping, Y. (2019). Graph-based semi-supervised learning with non-ignorable non-response. *Advances in Neural Information Processing Systems*, 32, 7015-7025.
 22. Burbank, A.J., Todoric, K., Steele, P., Rosen, J., **Zhou, H.**, Frye, M., Loughlin, C.E., Ivins, S., Mills, K., Massey, L.D., Reeve, B.B., Hernandez, M.L. (2018). Age and African-American race impact the validity and reliability of the asthma control test in persistent asthmatics. *Respiratory Research*, 19(1), 152. PMC6094875.
 23. *Pan, Y. Cai, J., Kim, S., **Zhou, H.** (2018). Regression analysis for secondary response variable in a case-cohort study. *Biometrics*, 74(3), 1014-1022. PMC6026088.
 24. *Burbank, A.J., Duran, C.G., Pan, Y., Burns, P., Jones, S., Jiang, Q., Yang, C., Jenkins, S., Wells, H., Alexis, N., Kesimer, M., Bennett, W.D., **Zhou, H.**, Peden, D.B., Hernandez, M.L. (2018). Gamma tocopherol-enriched supplement reduces sputum eosinophilia and endotoxin-induced sputum neutrophilia in volunteers with asthma. *The Journal of Allergy and Clinical Immunology*, 141(4), 1231-1238.e1. PMC5775926.
 25. *Zhou, Q., Cai, J., **Zhou, H.** (2018). Outcome-dependent sampling with interval-censored failure time data. *Biometrics*, 74(1), 58-67. PMC5797528.
 26. Carson, J.L., Hernandez, M., Jaspers, I., Mills, K., Brighton, L., **Zhou, H.**, Zhang, J., Hazucha, M.J. (2018). Interleukin-13 stimulates production of nitric oxide in cultured human nasal epithelium. *In Vitro Cellular & Developmental Biology - Animal*, 54(3), 200-204. PMC6337725.
 27. *Pan, Y., Cai, J., Longnecker, M.P., **Zhou, H.** (2018). Secondary outcome analysis for data from an outcome-dependent sampling design. *Statistics in Medicine*, 37(15), 2321-2337. PMC6130921.
 28. *Zou, B., Cai, J., Koch, G.G., **Zhou, H.**, Zou, F. (2017). A model-based conditional power assessment for decision making in randomized controlled trial studies. *Statistics in Medicine*, 36(30), 4765-4776. PMC5995155.
 29. Burbank, A.J., Duran, C.G., Almond, M., Wells, H., Jenkins, S., Jiang, Q., Yang, C., Wang, T., **Zhou, H.**, Hernandez, M.L., Peden, D.B. (2017). A short course of gamma-tocopherol mitigates LPS-induced inflammatory responses in humans ex vivo. *The Journal of Allergy and Clinical Immunology*, 140(4), 1179-1181.e4. PMC5632577.
 30. *Lu, T.S., Longnecker, M.P., **Zhou, H.** (2017). Statistical inferences for data from studies conducted with an aggregated multivariate outcome-dependent sample design. *Statistics in Medicine*, 36(6), 985-997. PMC5291804.
 31. *Zhou, Q., **Zhou, H.**, Cai, J. (2017). Case-cohort studies with interval-censored failure time data. *Biometrika*, 104(1), 17-29. PMC5608290.

32. *Shook-Sa, B.E., Chen, D.G., **Zhou, H.** (2017). Using structural equation modeling to assess the links between tobacco smoke exposure, volatile organic compounds, and respiratory function for adolescents aged 6 to 18 in the United States. *International Journal of Environmental Research and Public Health*, 14(10), 1112. PMC5664613.
33. *Ding, J., Lu, T.S., Cai, J., **Zhou, H.** (2017). Recent progresses in outcome-dependent sampling with failure time data. *Lifetime Data Analysis*, 23(1), 57-82. PMC4942414.
34. *Carson, J.L., Zhou, L., Brighton, L., Mills, K.H., **Zhou, H.**, Jaspers, I., Hazucha, M. (2017). Temporal structure/function variation in cultured differentiated human nasal epithelium associated with acute single exposure to tobacco smoke or E-cigarette vapor. *Inhalation Toxicology*, 29(3), 137-144. PMC5545111.
35. *Yan, Y., **Zhou, H.**, Cai, J. (2017). Improving efficiency of parameter estimation in case-cohort studies with multivariate failure time data. *Biometrics*, 73(3), 1042-1052. PMC5522786.
36. *Duran, C.G., Burbank, A.J., Mills, K.H., Duckworth, H.R., Aleman, M.M., Kesic, M.J., Peden, D.B., Pan, Y., **Zhou, H.**, Hernandez, M.L. (2016). A proof-of-concept clinical study examining the NRF2 activator sulforaphane against neutrophilic airway inflammation. *Respiratory Research*, 17(1), 89. PMC4957339.
37. Pawlak, E.A., Noah, T.L., **Zhou, H.**, Chehrazi, C., Robinette, C., Diaz-Sanchez, D., Miller, L., Jaspers, I. (2016). Diesel exposure suppresses natural killer cell function and resolution of eosinophil inflammation: a randomized controlled trial of exposure in allergic rhinitics. *Particle and Fibre Toxicology*, 13(1), 24. PMC4859992.
38. Muller, L., Meyer, M., Bauer, R.N., **Zhou, H.**, Zhang, H., Jones, S., Robinette, C., Noah, T.L., Jaspers, I. (2016). Effect of broccoli sprouts and live attenuated influenza virus on peripheral blood natural killer cells: a randomized, double-blind study. *PLOS One*, 11(1), e0147742. PMC4731143.
39. *Tan, Z., Qin, G., **Zhou, H.** (2016). Estimation of a partially linear additive model for data from an outcome-dependent sampling design with a continuous outcome. *Biostatistics*, 17(4), 663-676. PMC5031945.
40. *Zou, B., Zou, F., Shuster, J.J., Tighe, P.J., Koch, G.G., **Zhou, H.** (2016). On variance estimate for covariate adjustment by propensity score analysis. *Statistics in Medicine*, 35(20), 3537-3548. PMC4961520.
41. *Yu, J., Liu, Y., Cai, J., Sandler, D.P., **Zhou, H.** (2016). Outcome-dependent sampling design and inference for Cox's proportional hazards model. *Journal of Statistical Planning and Inference*, 178, 24-36. PMC5224741.
42. Kobernick, A.K., Peden, D.B., **Zhou, H.**, Zhou, Q., Dillon, M.A., Alexis, N.E. (2016). Reproducibility of the inflammatory response to inhaled endotoxin in healthy volunteers. *Journal of Allergy and Clinical Immunology*, 138(4), 1205-1207. PMC5056796.
43. *Zhao, Y., Saville, B.R., **Zhou, H.**, Koch, G.G. (2016). Sensitivity analysis for missing outcomes in time-to-event data with covariate adjustment. *Journal of Biopharmaceutical Statistics*, 26(2), 269-279. PMC4821499.
44. Mail, R., Jones, S., Pan, Y., **Zhou, H.**, Jaspers, I., Peden, D.B., Cairns, B.A., 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*, 308(9), L855-860. PMC4421787.
45. Todric, K., **Zhou, H.**, Zhang, H., Mills, K., Peden, D.B., Hernandez, M.L. (2015). Body mass index correlates with pollutant-induced interleukin-1beta in sputum and blood. *Annals of Allergy, Asthma & Immunology*, 114(3), 251-253. PMC4352399.
 46. Hernandez, M.L., Mills, K., Almond, M., Todoric, K., Aleman, M., Zhang, H., **Zhou, H.**, Peden, D. (2015). IL-1 receptor antagonist reduces endotoxin-induced airway inflammation in healthy volunteers. *Journal of Allergy and Clinical Immunology*, 135(2), 379-385. PMC4323893.
 47. *Yu, J., Liu, Y., Sandler, D.P., **Zhou, H.** (2015). Statistical inference for the additive hazards model under outcome-dependent sampling. *Canadian Journal of Statistics*, 43(3), 436-453. PMC4569173.
 48. *Zou, B., Jin, B., Koch, G.G., **Zhou, H.**, Borst, S.E., Menon, S., Shuster, J.J. (2015). On model selection for repeated measurement data in clinical studies. *Statistics in Medicine*, 34(10), 1621-1633. PMC4390448.
 49. *Zhao Y., Herring, A.H., **Zhou, H.**, Ali, M.W., Koch, G.G. (2014). A multiple imputation method for sensitivity analyses of time-to-event data with possibly informative censoring. *Journal of Biopharmaceutical Statistics*, 24(2), 229-253. PMC4009741.
 50. 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., Jaspers, I. (2014). Effect of broccoli sprouts on nasal response to live attenuated influenza virus in smokers: a randomized, double-blind study. *PLOS ONE*, 9(6), e98671. PMC4049587.
 51. *Ding, J., **Zhou, H.**, Liu, Y., Cai, J., Longnecker, M. (2014). Estimating effect of environmental contaminants on women's subfecundity for the MoBa study data with an outcome-dependent sampling scheme. *Biostatistics*, 15(4), 636-650. PMC4168316.
 52. Calandruccio, L., **Zhou, H.** (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*, 57(3), 1089-1097. PMC4043956.
 53. *Yu, J., **Zhou, H.**, Liu, X., Zou, F., Willke, R.J. (2014). Adjusting complex heterogeneity in treatment assignment in observational studies. *International Journal of Statistics in Medical Research*, 3(2), 203. doi: 10.6000/1929-6029.2014.03.02.13
 54. Geiser, M., Lay, J.C., Bennet, W.D., **Zhou, H.**, Wang, X., Peden, D.B., Alexis, N.E. (2013). Effects of ex vivo γ -tocopherol on airway macrophage function in healthy and mild allergic asthmatics. *Journal of Innate Immunity*, 5(6), 613-624. PMC3939603.
 55. Sturmer, T., Marquis, M.A., **Zhou, H.**, Meigs, J.B., Lim, S., Blonde, L., Macdonald, E., Wang, R., Lavange, L.M., Pate, V., Buse, J.B. (2013). Cancer incidence among those initiating insulin therapy with glargine versus human NPH insulin. *Diabetes Care*, 36(11), 3517-3525. PMC3816915.
 56. **Zhou, H.**, Xu, W., Zeng, D., Cai, J. (2013). Semiparametric inference for data with a continuous outcome from a two-phase probability dependent sampling scheme.

- Journal of the Royal Statistical Society, Series B (Statistical Methodology)*, 6(1), 197-215. PMC3984585.
57. Jones, S.W., **Zhou, H.**, Ortiz-Pujols, S.M., Maile, R., Herbst, M., Joyner, B.L., Zhang, H., Kesic, M., Jaspers, I., Short, K.A., Meyer, A.A., Peden, D.B., Cairns, B.A., Noah, T.L. (2013). Bronchoscopy-derived correlates of lung injury following inhalational injuries: a prospective observational study. *PLOS One*, 8(5), e64250. PMC3656836.
 58. Caron, W.P., Lay, J.C., Fong, A.M., La-Beck, N.M., Kumar, P., Newman, S.E., **Zhou, H.**, Monaco, J.H., Clarke-Pearson, D.L., Brewster, W.R., Van Le, L., Bae-Jump, V.L., Gehrig, P.A., Zamboni, W.C. (2013). Translational studies of phenotypic probes for the mononuclear phagocyte system and liposomal pharmacology. *Journal of Pharmacology and Experimental Therapeutics*, 347(3), 599-606. PMC3836305.
 59. Hernandez, M.L., Wagner, J.G., Kala, A., Mills, K., Wells, H.B., Alexis, N.E., Lay, J.C., Jiang, Q., Zhang, H., **Zhou, H.**, Peden, D.B. (2013). Vitamin E, γ -tocopherol, reduces airway neutrophil recruitment after inhaled endotoxin challenge in rats and in healthy volunteers. *Free Radical Biology and Medicine*, 60, 56-62. PMC3654053.
 60. Alexis, N.E., Lay, J.C., **Zhou, H.**, Kim, C.S., Hernandez, M.L., Kehrl, H., Hazucha, M.J., Devlin, R.B., Diaz-Sanchez, D., Peden, D.B. (2013). The glutathione-S-transferase mu 1 (GSTM1) null genotype and increased neutrophil response to low-level ozone (0.06 ppm). *The Journal of Allergy and Clinical Immunology*, 131(2), 610-612. PMC3509264.
 61. Noah, T.L., **Zhou, H.**, Jaspers, I. (2012). Alteration of the nasal responses to influenza virus by tobacco smoke. *Current Opinion in Allergy and Clinical Immunology*, 12(1), 24-31. PMC3305994.
 62. Hernandez, M.L., Herbst, M., Lay, J.C., Alexis, N.E., Brickey, W.J., Ting, J.P., **Zhou, H.**, Peden, D.B. (2012). Atopic asthmatic patients have reduced airway inflammatory cell recruitment after inhaled endotoxin challenge compared with healthy volunteers. *The Journal of Allergy and Clinical Immunology*, 130(4), 869-876.e2. PMC3652253.
 63. *Wang, X., Ma, J., George, S., **Zhou, H.** (2012). Estimation of AUC or Partial AUC under test-result-dependent sampling. *Statistics in Biopharmaceutical Research*, 4(4), 313-323. PMC3564679.
 64. Hernandez, M., Brickey, W.J., Alexis, N.E., Fry, R.C., Rager, J.E., Zhou, B., Ting, J.P., **Zhou, H.**, Peden, D.B. (2012). Airway cells from atopic asthmatic patients exposed to ozone display an enhanced innate immune gene profile. *The Journal of Allergy and Clinical Immunology*, 129(1), 259-261.e1-2. PMC3254026.
 65. Fry, R.C., Rager, J.E., **Zhou, H.**, Zou, B., Brickey, J.W., Ting, J., Lay, J.C., Peden, D.B., Alexis, N.E. (2012). Individuals with increased inflammatory response to ozone demonstrate muted signaling of immune cell trafficking pathways. *Respiratory Research*, 13(1), 89. PMC3607990.
 66. *Xu, W., **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), 650-664. PMC3440236.
 67. Liu, Y., Yuan, Z., Cai, J., **Zhou, H.** (2012). Marginal hazard regression for correlated failure time data with auxiliary covariates. *Lifetime Data Analysis*, 18(1), 116-138. PMC3259288.

68. Noah, T.L., **Zhou, H.**, Zhang, H., Horvath, K., Robinette, C., Kesic, M., Meyer, M., Diaz-Sanchez, D., Jaspers, I. (2012). Diesel exhaust exposure and nasal response to attenuated influenza in normal and allergic volunteers. *American Journal of Respiratory and Critical Care Medicine*, 185(2), 179-185. PMC3297091.
69. *Ding, J., Lu, T., **Zhou, H.** (2012). Outcome dependent sampling models. *Encyclopedia of Environmetrics*, doi: 10.1002/9780470057339.vao018.pub2.
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71. **Zhou, H.**, You, J., Qin, G., 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)*, 60(4), 559-574. PMC3181132.
72. Dillon, M.A., Harris, B., Hernandez, M.L., Zou, B., Reed, W., Bromberg, P.A., Devlin, R.B., Diaz-Sanchez, D., Kleeberger, S., **Zhou, H.**, Lay, J.C., Alexis, N.E., Peden, D.B. (2011). Enhancement of systemic and sputum granulocyte response to inhaled endotoxin in people with the GSTM1 null genotype. *Occupational and Environmental Medicine*, 68(10), 783-785. PMC3808962.
73. Horvath, K.M., Herbst, M., **Zhou, H.**, Zhang, H., Noah, T.L., Jaspers, I. (2011). Nasal lavage natural killer cell function is suppressed in smokers after live attenuated influenza virus. *Respiratory Research*, 12(1), 102. PMC3163542.
74. Doreswamy, V., Alexis, N.E., **Zhou, H.**, Peden, D.B. (2011). Nasal PMN response to repeated challenge with endotoxin in healthy volunteers. *Inhalation Toxicology*, 23(3), 142-147. PMC3808958.
75. **Zhou, H.**, Zou, B., Hazucha, M., Carson, J.L. (2011). Nasal nitric oxide and lifestyle exposure to tobacco smoke. *The Annals of Otolaryngology, Rhinology, & Laryngology*, 120(7), 455-459. PMC3193610.
76. **Zhou, H.**, Wu, Y., Liu, Y., Cai, J. (2011). Semiparametric inference for a 2-stage outcome-auxiliary-dependent sampling design with continuous outcome. *Biostatistics*, 12(3), 521-534. PMC3114654.
77. Noah, T.L., **Zhou, H.**, Monaco, J., Horvath, K., Herbst, M., Jaspers, I. (2011). Tobacco smoke exposure and altered nasal responses to live attenuated influenza virus. *Environmental Health Perspectives*, 119(1), 78-83. PMC3018504.
78. Qin, G., **Zhou, H.** (2011). Partial linear inference for a 2-stage outcome-dependent sampling design with a continuous outcome. *Biostatistics*, 12(3), 506-520. PMC3114650.
79. **Zhou, H.**, Qin, G., Longnecker, M.P. (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*, 67(3), 876-885. PMC3182522.
80. **Zhou, H.**, Song, R., Wu, Y., Qin, J. (2011). Statistical inference for a two-stage outcome-dependent sampling design with a continuous outcome. *Biometrics*, 67(1), 194-202. PMC4106685.
81. Liao, D., Shaffer, M.L., **Zhou, H.** (2011). Acute effects of fine particulate air pollution on cardiac electrophysiology. *Advanced Topics in Environmental Health and Air Pollution Case Studies*, 119(7), 927-932. doi: 10.1289/ehp.1002640.

82. 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.
83. *Liu, Y., Wu, Y., Cai, J., **Zhou, H.** (2010). Additive-multiplicative rates model for recurrent events. *Lifetime Data Analysis*, 16(3), 353-373. PMC3199147.
84. *You, J., **Zhou, H.** (2010). Inference for seemingly unrelated varying-coefficient nonparametric regression models. *International Journal of Statistics and Management System*, 5(1-2), 59-83. PMC3893667.
85. Carson, J.L., Lu, T.S., Brighton, L., Hazucha, M., Jaspers, I., **Zhou, H.** (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*, 46(7), 606-612. PMC3193609.
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100. *You, J., **Zhou, H.** (2009). Statistical inference for regression models with covariate measurement error and auxiliary information. *International Journal of Statistics and Management System*, 4(1-2), 96-112. PMC3244303.
101. Graff, D.W., Cascio, W.E., Rappold, A., **Zhou, H.**, Huang, Y.C.T., Devlin, R.B. (2009). Exposure to concentrated coarse air pollution particles causes mild cardiopulmonary effects in healthy young adults. *Environmental Health Perspectives*, 117(7), 1089-1094. PMC2717135.
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TEACHING AND MENTORING

– Classroom Teaching:

- * Bios662 INTERMEDIATE STATISTICAL METHODS (4 Credits, 2014-current, event years),
- * Bios680 Introductory Survival Analysis (3 credits, Spring 2005-current, odd years).
- * Bios762 Advanced Linear Models (4 Credits, Fall 2010, -2013).
- * Bios167 Applied Stochastic Processes (BIOS 167: Spring 1999-2003);
- * Bios145 Principles of Experimental Analysis (3 credits)

– 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-
- 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- 2017
 Wan Suk Choi (Ph.D), Biostatistics, 2013- 2018
 Ting Wang (Ph.D), Biostatistics, 2015- 2020
 Fan Zhou (Ph.D, joint with Hongtu Zhu), Biostatistics, 2015- 2019
Award for Excellence in Doctoral Research and recipient of 2001
 Leo Li (Ph.D, joint with Jianwen Cai) Biostatistics, 2021-present

– **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)	Vasyl Zhabotnysky (2020-2021)
Gene Urrutia (2018-2019)	Sarha Lotspeich (2020-2021)
Jia Wen (2022-2023)	Jordan Bryan (2023-2024)

– **Dissertation Committee Membership Served:**

Rosin, Samuel (Ph.D) Biostatistics, 2022-current
 Shaina Michell (Ph.D) Biostatistics, 2020-present
 Kilpatrick, Kayla (Ph.D), Biostatistics, 2020- present
 Arkopal Choudhury (Ph.D), Biostatistics, 2018- present
 Zhaoyu Yin (Ph.D.), Department of Biostatistics, 2012-.
 Maitra, Poulami (Ph.D.), Department of Biostatistics, 2017-.
 Briana Stephenson (Ph.D.), Department of Biostatistics, 2015-2019.
 Angle Devalos (Ph.D.), Department of Biostatistics, 2016-2019.
 Zachary Robbinsn (Ph.D.), Department of Environmental Sciences, 2013-.
 Fei Zou’s Student (Ph.D.), Department of Biostatistics, 2013-.
 Yue Zhao (Ph.D.), Department of Biostatistics, 2008-2013.
 Yi Gong (Ph.D.), Department of Biostatistics, 2008-2012.
 Amy Richardson (Ph.D.), Department of Biostatistics, 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.
 Kitie 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, 2012-2013
 Jieni Xu (MS, advisor), “Statistical inferences under outcome dependent sampling design”, Biostatistics, 2014-2015.
 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.

– **Bios Graduate Students Supported by my T32 Training Grant (2017-Current)**

Michael Jetsupphasuk (2023)	Andong Wang (2023)	Teya Davis (2023)
Kaitlyn Cross (2023)	Jordan Bryan (2023)	Brian Richardson (2022)
Jia Wen (2021)	Eric Zhang (2021)	Forrest Hurley (2021)
Samuel Hawke (2021)	Benjamin Bodek (2021)	Sarah Lotspeich (2020)
Andrew Walther (2020)	Jesus Vazquez (2020)	Wylina Guan (2020)
Vasyl Zhabotynsky (2019)	Adane Wogu (2019)	Emily R. Shives (2019)
Haolin Li (2019)	Owen E. Leete (2018)	Kyle F. Grosser (2018)
Taylor J. Krajewski (2018)	Emily M. Damone (2018)	Ethan M. Alt (2018)
Eugene G. Urrutia (2017)	Elizabeth Rowley (2017)	Jonathan D. Rosen (2017)
Ana S. P. Perez (2017)	Brady Nifong (2017)	Mike Lawson (2017)
Kayla Kilpatrick (2017)	Angel Davalos (2017)	Nathan W. Bean (2017)

– **Graduate Students funded/Advised: (partial list)**

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

Leo Li (Ph.D. student). Biostatistics, 2021-current.
 Yucheng Li (Ph.D. student). Biostatistics, 2021-current.
 Jie Chen (Ph.D. student). Biostatistics, 2021-2022.
 Yinghao Pan (Ph.D. student). Biostatistics, 2009-2014.
 Hongtao Zhang (Ph.D. student). Biostatistics, 2009-2014.
 Jingxiang Chen (Ph.D. student). Biostatistics, 2011-2013.
 Ruoqing Zhu (Ph.D. student). Biostatistics, 2008-2009.
 Baiming Zou (Ph.D. student). Biostatistics, 2008-2012.

David Kessler (Ph.D. student). Biostatistics, 2008-2008.
 Ben Saville (Ph.D. student). Biostatistics, 2008-2008.
 Zhengzheng Tang (Ph.D. student). Biostatistics, 2007-2009.
 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 (as Principal Investigator):

1. IRBIS 20-1900 “Study of Latinos-Investigation of Neurocognitive Aging 2 (SOL-INCA2)”. (Lead PI - Haibo Zhou).
2. T32 ES007018-46 “Biostatistics for Research in Environmental Health”. (MPI and Program Director), NIH/NIEHS, 07/01/2023-06/30/2027, \$6,026,934 total, funding 23 pre-doctoral students in SPH (Bios 9, Epid 7, Envr 7). and 5 post-doctoral scholars (Bios 1, Epid 2, Envr 2).
3. T32 ES007018-41 “Biostatistics for Research in Environmental Health”. (MPI and Program Director), NIH/NIEHS, 07/01/2017-06/30/2022, \$6,026,934 total, unding 23 pre-doctoral students in SPH (Bios 9, Epid 7, Envr 7), and 5 post-doctoral scholars (Bios 1, Epid 2, Envr 2).
4. R01 ES021900, ”Statistical Methods for Outcome-Dependent Sampling”, (PI: Zhou), National Institute of Environmental Health Sciences (2013-2017), National Institute of Environmental Health Sciences, total \$1,197,111.00.
5. PO#3100063817 “Risks of Cancers in Relation to Insulin Therapy in People with Diabetes”. (PI: Zhou). Total Funding: \$3,822,155 Sponsor is Sanofi-Aventis, 9/1/09-6/30/13
6. R01 CA079949-07 “Statistical methods for biased sampling”. (PI: Zhou), National Cancer Institute (2008-2012) total \$758,918.
7. R01 CA079949-04 “Statistical methods for biased sampling”, (PI: Zhou), National Cancer Institute (2004-2007) total \$650,942.
8. R01 CA79949-01 “Statistical methods for biased sampling”. (PI: Zhou), National Cancer Institute (1999-2003), total \$294,355.
9. Inter Government Personal Act YI900037 National Institute of Environmental Health Sciences (1997-2004, 40% effort), total direct cost \$310,000.

10. Junior Faculty Development Award, University of North Carolina at Chapel Hill (1999-2000), direct cost \$5000

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:

Chair, Bios Award Committee,	Department of Biostatistics, 2019-Current
MS Exam Committee	Department of Biostatistics, 2021- current
Bios Admission Comm.	Biostatistics Dept, 2015-current
SPH Climate Change Working Group	School of Public Health, 2023-current
Bios Applied PhD Exam Comm.	School of Public Health, 2021-2022
UNC SPH APT Comm.	School of Public Health, 2013-2016
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

• **Meeting/Seesion Organized**

- Organizer of Invited Session for 2002 IBS/ENAR, “Statistical methods for reproductive health”. March 17-20, 2002 Arlington,.
- Organizer of Invited Session for 2004 JSM, ”Seesion on the Outcome-dependent sampling in epidemiologic studies” Invited Session by Epidemiology Section of ASA (Sesstion #20015). Aug., 2004, Toronto, Canada.
- Invited talk 2004 JSM, Toronto, Canada, Aug. 2004. Organizer: Louise Ryan
- Invited Talk 2004 Workshop for Children Health Study, NIH, Rockwell, MD.

- Special Emphasis Panel/Initial Review Group, National Institute of Environmental Health Sciences, ZES1 LWJ-B (MM) (S). 10/18/2004-10/19/2004.