YANGXIN HUANG, PhD in Biostatistics

Department of Epidemiology & Biostatistics, DMC 56
College of Public Health, University of South Florida
13201 Bruce B. Downs Blvd., Tampa, FL 33612
Tel: 813-9748209(o)
Fax: 813-9744719
Email: yhuang@usf.edu
Website: https://health.usf.edu/publichealth/overviewcoph/faculty/yangxin-huang

CURRICULUM VITAE

EDUCATION

- **2000: PhD** in Biostatistics
  Liverpool John Moores University, Liverpool, UK
- **1987: MSc** in Statistics
  Huazhong University of Science and Technology, Wuhan, P.R. China
- **1982: BSc** in Mathematics
  Wuhan University of Technology, Wuhan, P.R. China

EMPLOYMENT

- 08/2015-present: **Professor (Tenured) in Biostatistics**, College of Public Health, University of South Florida, Tampa, FL
- 05/2017-05/2018: **Professor in Biostatistics**, Health Informatics Institute, Morsani College of Medicine, University of South Florida, Tampa, FL
- 08/2010-07/2015: **Associate Professor (Tenured) in Biostatistics**, Department of Epidemiology and Biostatistics, College of Public Health, University of South Florida, Tampa, FL
- 05/2005-07/2010: **Assistant Professor (Tenure-track) in Biostatistics**, Department of Epidemiology and Biostatistics, College of Public Health, University of South Florida, Tampa, FL
- 08/2003-08/2005: **Assistant Professor in Biostatistics**, Department of Biostatistics and Computational Biology, University of Rochester School of Medicine and Dentistry, Rochester, NY
- 07/2001-08/2003: **Biostatistician**, AIDS Clinical Trial Groups and Center for Biostatistics in AIDS Research at Harvard School of Public Health, Boston, MA
- 01/2000-07/2001: **Research Associate**, Department of Mathematical and Computing Sciences, Liverpool John Moores University, Liverpool, UK
- 09/1997-01/2000: **Teaching Assistant**, Department of Mathematical and Computing Sciences, Liverpool John Moores University, Liverpool, UK
- 09/1993-09/1996: **Associate Professor in Statistics**, Department of Mathematics, Wuhan University of Technology, Wuhan, P. R. China
- 08/1985-09/1993: **Lecturer in Mathematics**, Wuhan University of Technology, Wuhan, P. R. China

ADMINISTRATIVE RESPONSIBILITIES

- 2012-2016: **Director of PhD program in biostatistics**; Department of Epidemiology and Biostatistics, College of Public Health, University of South Florida, Tampa, FL
- 2014-2015: **Director of PhD program in epidemiology**; Department of Epidemiology and Biostatistics, College of Public Health, University of South Florida, Tampa, FL
- 2005-2011: **Associate Director in center for collaborative research**; Department of Epidemiology and Biostatistics, College of Public Health, University of South Florida, Tampa, FL
- 2011, 2013: **Chair of departmental faculty search committee**; College of Public Health, University of South Florida, Tampa, FL
- 2005-2010: **Coordinator of departmental biostatistics forum**; College of Public Health, University of South Florida, Tampa, FL

RESEARCH INTERESTS

Methodology Research

- Bayesian statistics and methodology as well as MCMC-based algorithms

- Joint models for event time and longitudinal data with missing, skewed and mis-measured features
- Mixture of nonlinear mixed-effects models for skewed-longitudinal data
- Quantile regression-based joint models for longitudinal and survival data
- Nonparametric mixed effects models for asymmetric longitudinal data
- Causal inference and prediction
- Biomedical big data analytics for complex high-dimensional data
- Statistical methods and theories for dynamic ODE systems

Application Research

- Clinical trial design and studies, in particular, AIDS studies
- Missing, measurement error and zero-inflated data analysis
- Biostatistical applications in HIV/AIDS, cancer and diabetes etc.
- Study design and data analysis for clinical, survey and observational studies
- Infectious disease modelling and prediction

CONSULTING EXPERIENCE

I have extensive experience of statistical consulting and collaboration in biomedical and public health environment

- To conduct study design and protocol development
- To help statistical data analysis and interpretation/presentation of analysis results
- To provide general critique to grant proposal evaluation and preparation
- To provide critical review of manuscript critique and help revise statistical section
- To provide hands-on experience to train graduate students in biostatistical consulting-based statistical technique, data analysis and results interpretation
- To lead administrative role of consulting and collaboration for routine consulting services to medical, public health and other scientific researchers

RESEARCH PROJECTS

- ***On-going grants***
  1. Friedreich's Ataxia Research Alliance (FARA) (PI: Theresa Zesiewicz, USF), "Natural History Biomarkers in Friedreich's Ataxia". $200,000, 09/2017-09/2020. **Role:** Co-I with 7% efforts.
  2. Veterans Administration Grant (PI: Y. Huang, USF), "Hospital Falls and Nursing Unit Design". 10/2018-09/2020. $100,000. **Role:** PI with 20% efforts.

- ***Completed statistics related grants (2010-present)***
  1. Veterans Administration Grant (PI: Y. Huang, USF), "VISN 8 Patient Safety Center of Inquiry". 02/2019-09/2020. $50,000. **Role:** PI with 10% efforts.
  2. National Institute of Health (NIH) R03 AI080338 (**PI: Y. Huang**), "Statistical Methods for Long-Term HIV Dynamic Modeling and Design", $145,118, 07/2009-06/2012. **Role:** PI with 25% efforts.
  3. National Security Agency (NSA) Grant (**PI: Y. Huang**). "Hierarchical Bayesian Approaches to Modeling and Prediction in Longitudinal Viral Dynamic Studies". $35,000, 02/2009-01/2011. **Role:** PI with 8% efforts
  4. NIH T15 HL097780-01 (PI: Y. Zhu, USF), "Biostatistics in Medical & Health Research via Clinical Trials and Epidemiology". $793,640, 08/2009-07/2013. **Role:** Co-PI with 10% efforts
  5. USF Creative Scholarship Grant (PI: **Y. Huang**), "Jointly Modeling Longitudinal Response and Covariate Data for AIDS Studies". $10,000, 05/2015-04/2016. **Role:** PI with 25% efforts.
  6. USF Proposal Enhancement Grant (PI: **Y. Huang**), "Mixture Joint Modeling for Survival and Longitudinal Data with Multiple Features". $20,000, 05/2016-04/2017. **Role:** PI with 20% efforts.
  7. National Institute of Health (NIH) R01 AI055290 (PI: H. Wu, Univ. of Rochester), "AIDS clinical trial modelling and simulations", $1,250,000, 02/2005-02/2010. **Role:** Subcontract-PI with 20% efforts
  8. USF Proposal Enhancement Grant (PI: **Y. Huang**), "Statistical Modeling and Analysis for HIV/AIDS Longitudinal and Survival Data", $25,000, 06/2012-01/2014. **Role:** PI with 10% efforts.

9. USF Research Grant (**PI: Y. Huang**), "Statistical modeling and analysis for AIDS data", $20,000, 01/2010-12/2011. **Role:** PI with 7% efforts

- ***Completed collaborative research grants as Co-I or Biostatistician which were not listed (2010-present)***
  I have been involved more than 25 collaborative research grants from NSF, NIH, VA and other funding agents as co-investigator or biostatistician

PEER-REVIEWED PUBLICATIONS

- **Peer-reviewed publications (2010-present)**

Peer-reviewed book

Hengqing Tong, T. Krishna Kumar and **Yangxin Huang** (2011). *Developing Econometrics: Statistical Theories and Methods with Applications to Economics and Business*. New York: John Wiley & Sons. ISBN-10: 0470681772; ISBN-13: 978-0470681770

Peer-reviewed publications

2019

1. Zhang, H., **Huang, Y.** (Corr. author) (2019). Quantile regression-based Bayesian joint modeling analysis of longitudinal-survival data, with application to an AIDS cohort study. *Lifetime Data Analysis* (in press)
2. Zhang, H., **Huang, Y.** (Corr. author)**,** Wang, W., Chen H. and Langland-Orban, B (2019). Bayesian quantile regression-based partially linear mixed-effects joint models for longitudinal data with multiple features. *Statistical Methods in Medical Research*. 28(2):569-588.
3. Wang HL, McMillan SC, Vijayakumar N, McDonald S, Huang LT, Gwede C, Padhya T, Russell J, Vondruska K, Buck HG, **Huang Y**, Visovsky C. (2019). A behavioral physical activity intervention to manage moderate and severe fatigue among head and neck cancer patients-pre-efficacy study in the national institutes of health ORBIT model. *Cancer Nursing* 42(1):E1-E14.

2018

4. **Huang** Y., Lu X., Chen J., Liang J. and Zangmeister M (2018). Joint model-based clustering of nonlinear longitudinal trajectories and associated time-to-event data analysis, linked by latent class membership: with application to AIDS clinical studies. *Lifetime Data Analysis* 24: 699-718.
5. Zesiewicz T, **Huang Y**, Gooch C. (2018) Double-blind, randomized, controlled trial of EPI-743 in Friedreich's Ataxia. *Neurodegenerative Disease Management* 8(4): 233-242.
6. Lu X, **Huang Y**.(Corr. author), Chen J, Zhou R, Yu S., Yin P. (2018). Bayesian joint analysis of heterogeneous- and skewed-longitudinal data and a binary outcome, with application to AIDS clinical studies. *Statistical Methods in Medical Research* 27(10):2946-2963.
7. Han G., **Huang Y.** (Corr. author)**,** and Yuan A. (2018). Bayesian-frequentist hybrid approach for skew-normal nonlinear mixed-effects joint models in the presence of covariates measured with errors. *Statistics and Its Interface* 11(2):223-236.
8. Pamnani SJ, Sudenga SL, Rollison DE, Ingles DJ, Abrahamsen M, Villa LL, Lazcano-Ponce E, **Huang Y**, Borenstein A, Giuliano AR. (2018). Recurrence of Genital Infections With 9 Human Papillomavirus (HPV) Vaccine Types (6, 11, 16, 18, 31, 33, 45, 52, and 58) Among Men in the HPV Infection in Men (HIM) Study. *J Infect Dis.* 218(8):1219-1227.

2017

9. Xing, D., **Huang, Y**.(Corr. author)**,** Chen, H., Zhu, Y., Dagne, G. A. and Baldwin, J. (2017). Bayesian inference for two-part mixed-effects model using skew distributions, with application to longitudinal semi-continuous alcohol data. *Statistical Method in Medical Research***,** 26(4): 1838-1853.
10. Wang W., Ma Y., **Huang Y**. and Chen H. (2017). Generalizability analysis for clinical trials: A simulation study. *Statistics in Medicine* 36(10):1523-1531.
11. Lu, T. and **Huang, Y**. (Corr. author)**.** (2017) Bayesian inference on mixed-effects varying-coefficient joint models with ST distribution for longitudinal data with multiple features. *Statistical Methods and Medical Research,* 26(3): 1146-1164.
12. **Huang Y** and Xing D. (2017). Bayesian approach to linear mixed-effects models for skewed-longitudinal data. *Stochastic and Data Analysis Methods and Applications in Statistics and Demography*. James R. Bozeman, Teresa Oliveira and Christos H. Skiadas (Eds), 687-704.

13. **Huang** Y., Chen J. and Yin P. (2017). Hierarchical mixture models for longitudinal immunologic data with heterogeneity, non-normality and missingness. *Statistical Methods in Medical Research*. 26(1): 223–247.
14. **Huang Y** and Yan C. (2017). Piecewise mixture modeling for longitudinal virologic data with heterogeneity, non-normality and missingness. *Statistics in Biopharmaceutical Research* 9(1): 85-97.
15. **Huang, Y.** and Lu, T. (2017). Bayesian inference on partially linear mixed-effects joint models for longitudinal data with multiple features. *Computational Statistics* 32(1): 179-196.
16. Zesiewicz TA, Stephenson JB, **Huang Y**. et al. (2017). Longitudinal gait and balance decline in Friedreich's Ataxia: A pilot study. *Gait and Posture* 55:25-30

2016

17. **Huang Y.** and Chen J. (2016). Bayesian quantile regression-based nonlinear mixed-effects joint models for time-to-event and longitudinal data with multiple features. *Statistics in Medicine* 35 5666–5685. DOI: 10.1002/sim.7092
18. Shitaldas J Pamnani, Staci L Sudenga, Dana E Rollison, Donna J Ingles, Martha Abrahamsen, Luisa L Villa, Eduardo Lazcano-Ponce, **Yangxin Huang**, Amy Borenstein, Anna Giuliano. (2016). Impact of serum antibodies to HPV 6, 11, 16, 18 to risk of subsequent genital HPV infections among men: HIM Study. *Cancer Research* 76 (20) 6066-6075. DOI: 10.1158/0008-5472.CAN-16-0224
19. Xing D., **Huang Y**.(Corr. author), Chen H., Zhu Y., Dagne G A. and Baldwin J. (2016). Bayesian inference on bivariate semi-continuous mixed-effects models with application to longitudinal substance use data. *Journal of Advanced Statistics* 3(1): 122-135
20. **Huang Y.,** Dagne G.A. and Park J-G. (2016). Mixture joint models for event time and longitudinal data with multiple features. *Statistics in Biopharmaceutical Research* 8(2): 194-206
21. Shitaldas J Pamnani, Staci L Sudenga, Dana E Rollison, Donna J Ingles, Martha Abrahamsen, Luisa L Villa, Eduardo Lazcano-Ponce, **Yangxin Huang**, Amy Borenstein, Anna Giuliano. (2016). Sequential acquisition of anal HPV infection following genital infection among men who have sex with women: the *HPV* Infection in Men (HIM) Study. *Journal of Infectious Diseases* 214(8):1180-7
22. Meng, R., Li, Y., Chen, X., **Huang, Y**., Shi, H., Du, D., Niu, X., Lu C. and Lu, M. (2016). Aberrant Methylation of RASSF1A Closely Associated with HNSCC, a Meta-Analysis. *Scientific Report*. Feb 9; 6:20756. DOI: 10.1038/srep20756. PMID: 26857374
23. Lu, X., **Huang, Y**.(Corr. author) and Zhu, Y. (2016). Finite mixture of nonlinear mixed-effects joint models in the presence of missing and mismeasured covariate, with application to AIDS studies. *Computational Statistics and Data Analysis.* 9:119-130.
24. Yan C., Chen R. and **Huang Y** (Corr. author) (2016). Mixed-effects models with skewed distributions for time-varying decay rate in HIV dynamics. *Communications in Statistics -Simulation and Computation.* 45(2): 737-757. DOI: 10.1080/03610918.2013.873129
25. **Huang, Y.** (2016) Quantile regression-based Bayesian semiparametric mixed-effects models for longitudinal data with non-normal, missing and mismeasured covariate. *Journal of Statistical Computation and Simulation* 86(6):1183-1202.
26. **Huang Y**, Yan C., Yin P. and Lu M. (2016). A mixture of hierarchical joint models for longitudinal data with heterogeneity, non-normality, missingness and covariate measurement errors. *Journal of Biopharmaceutical Statistics*, 26:2, 299-322.

2015

27. **Huang Y.**, Dagne G.A., Zhou S. and Wang Z. (2015). Piecewise mixed-effects models with skew distributions for evaluating viral load changes: A Bayesian approach. *Statistical Methods in Medical Research,* 24(6): 730-746. **PMID**: 22045781.
28. Chen, L., **Huang**, **Y.,** Kasen, S., Skodol, A., Cohen, P. and Chen, H. (2015). Impact of adolescent personality disorders on obesity 17 years later. *Psychosomatic Medicine*, 77: 921-926.
29. Chen, H., **Huang**, **Y.** and N. Zhang (2015) Joint modeling of a linear mixed effects model for selfesteem from mean ages 13 to 22 and a generalized linear model for anxiety disorder at mean age 33. *Journal of Medical Statistics and Informatics.* 3: Article 1. doi: 10.7243/2053-7662-3-1.
30. Chen, J. and **Huang, Y** (Corr. author) (2015). A Bayesian mixture of semiparametric mixed-effects joint models for skewed-longitudinal and time-to-event data. *Statistics in Medicine.* 34: 2820–2843.

31. Xu Y., Hu B, Alnajm SS., Lu Y., **Huang** Y., Allen-Gipson, D. and F. Cheng. SEGEL: a web server for visualization of smoking effects on human lung gene expression. *PLoS One*. 10(5): e0128326. DOI:10.1371/journal.pone.0128326
32. Shi H., Chen X., Lu C., Gu C., Jiang H., Meng R., Niu X., **Huang** Y. and Lu, M. Association between P16INK4a promoter methylation and HNSCC: A meta-analysis of 21 published studies. *PLoS One*. 10(4): e0122302. DOI:10.1371/journal.pone.0122302
33. Zhang, H. and **Huang, Y** (Corr. author) (2015). Finite mixture models and their applications: A review. *Austin Biometrics and Biostatistics.* 2(1): 1013. http://austinpublishinggroup.com/biometrics/online-first.php
34. Chen J., Wang R. and **Huang Y**. (2015). Semiparametric spatial autoregressive model: A two-step Bayesian approach. *Annals of Public Health and Research.* 2(1): 1012.
35. **Huang Y**., Chen R., Dagne G.A., Zhu Y. and Chen H. (2015). Bayesian bivariate linear mixed-effects models with skew-normal/independent distributions, with application to AIDS studies. *Journal of Biopharmaceutical Statistics* 25(3):373-396.
36. **Huang Y**., Yan C., Xing D., Zhang N., Chen H. (2015). Jointly modeling event time and skewed-longitudinal data with missing response and mismeasured covariate for AIDS studies. *Journal of Biopharmaceutical Statistics.* **25**(4): 670-694.
37. Dagne G.A. and **Huang** Y. (2015). Bayesian Two-part Tobit Models with Left-Censoring, Skewness and Non-Ignorable Missingness. *Journal of Biopharmaceutical Statistics.* **25**(4): 714-730.

2014

38. Yan C., Zhang H., Chen Q. and **Huang Y** (Corr. author) (2014). An improved model of dividend tax based on continuous function. *Journal of Systems Science and Information.* **2(6):** 568-576.
39. Wei Q., Li Y., Shu C., Long L., **Huang Y.** and Yin, P. (2014). Transmission/disequilibrium tests incorporating unaffected offspring. *PLoS One*. **9(12):** e114892.
40. **Huang Y**., Yan C., Wu H. and Zhang X. (2014). Simultaneous inference for HIV dynamic models with skew-t distribution incorporating covariate measurement error and multiple treatment factors. *Statistics in Biopharmaceutical Research*. **6(3):** 213-228.
41. Lu X. and **Huang Y** (Corr. author) (2014). Bayesian analysis of nonlinear mixed-effects mixture models for longitudinal data with heterogeneity and skewness. *Statistics in Medicine* **33:**2830-2849.
42. Lu T., **Huang Y** (Corr. author), Wang M. and Qian F. (2014) A Refined Parameter Estimating Approach for HIV Dynamic Model. *Journal of Applied Statistics*. **41(8):** 1645–1657
43. **Huang Y.**, Hu J.X. and Dagne G.A. (2014). Joint modeling time-to-event and longitudinal data: A Bayesian approach. *Statistical Method & Applications.* **23**: 95-121
44. Zou J., **Huang Y.**, Maldonado L., Kasen S., Cohen P., Chen H. (2014) The Efficacy of Religious Service Attendance in Reducing Depressive Symptoms. *Social Psychiatry and Psychiatric Epidemiology*. **49(6):** 911-918.

2013

45. **Huang Y.** and Chen R. (2013). Skew-Elliptical Mixed-Effects Models with Time-Dependent Viral Decay Rates. In *JSM 2013 Proceedings, Biometrics Section*. 375-388.
46. Han G., **Huang Y.,** Li Q., Chen L. and Zhang X. (2013). Hybrid Bayesian Inference on HIV Viral Dynamic Models. *Journal of Applied Statistics.* **40(11):** 2516-2532.
47. Gu C., Lu J., Cui T., Lu C., Shi H., Xu W., Yuan X., Yang X., **Huang Y.** and Lu M. (2013). Association between MGMT Promoter Methylation and Non-Small Cell Lung Cancer: A Meta-Analysis. *PLoS One*. **8(9)**: e72633. doi:10.1371/journal.pone.0072633
48. Shi H., Li Y., Wang X., Lu C., Yang L., Gu C., Xiong J., **Huang** Y., Wang S. and Lu M. (2013). Association between RASSF1A Promoter Methylation and Ovarian Cancer: A Meta-analysis. *PLoS One*. **8(10):** e76787. doi:10.1371/journal.pone.0076787
49. **Huang Y.,** Dagne, G. A. and Park J-G. (2013). Segmental modeling of changing immunologic response for CD4 data with skewness, missingness and dropout. *Journal of Applied Statistics* **40**(10): 2244-2258.
50. Dagne, G.A. and **Huang, Y**. (2013). Bayesian semiparametric mixture Tobit models with left-censoring, skewness and covariate measurement error. *Statistics in Medicine* 32(22): 3881-3898. PMID: 23553914

51. Maldonado L., **Huang Y.,** Chen R., Kasen S., Cohen P. and Chen H. (2013). Impact of early adolescent anxiety disorders on self-esteem development from adolescence to young adulthood. *Journal of Adolescent Health.* 53: 287-292. **PMCID:** PMC3725205
52. **Huang Y**. and Dagne G.A. (2013). Comparison of mixed-effects models for skew-normal responses with an application to AIDS data: A Bayesian approach. *Communications in Statistics - Simulation and Computation*. 42(6):1268-1287
53. **Huang, Y**. (2013) Segmental modeling of viral load changes for HIV longitudinal data with skewness and detection limits. *Statistics in Medicine* **32**(2): 319-334. **PMID:** 22833368

2012

54. **Huang Y**., Chen J., and Yan C. (2012) Mixed-Effects joint models with skew-normal distribution for HIV dynamic response with missing and mismeasured time-varying covariate. *International Journal of Biostatistics* Vol. 8, Issue 1, Article 34. **PMID:** 23192055
55. Dagne G.A. and **Huang Y**. (2012). Bayesian inference for a nonlinear mixed-effects Tobit model with multivariate skew-t distributions: application to AIDS studies. *The International Journal of Biostatistics* Vol. 8, Issue 1, Article 27. **PMID:** 22992288
56. **Huang Y**. and Dagne G.A. (2012). Simultaneous Bayesian inference for longitudinal data with asymmetry, detection limits and covariate measured with errors. *Journal of the Japan Statistical Society* **42**(1):1-22.
57. Wu L., Liu W., Yi G.Y., and **Huang Y.** (2012). Analysis of longitudinal and survival data: joint modeling, inference methods and issues. *Journal of Probability and Statistics* Volume 2012, Article ID 640153, 17 pages.
58. **Huang Y.** Wu L., Yi G.Y., and Lu W. (2012). *Editorial:* Joint Models and Their Application. *Journal of Probability and Statistics*. Volume 2012, Article ID 463502, 2 pages.
59. Dagne G.A. and **Huang Y.** (2012). Mixed-effects Tobit joint models for longitudinal data with skewness, detection limits and measurement errors. *Journal of Probability and Statistics***.** Volume 2012, Article ID 614102**,** 19 pages.
60. **Huang Y.** and Dagne G.A. (2012). Bayesian semiparametric nonlinear mixed-effects joint models for data with skewness, missing responses and measurement errors in covariates. *Biometrics* **68**(3):943-953. **PMID:** 22150787. **PMCID:** PMC3460696
61. **Huang Y.** and Dagne G. (2012). Simultaneous Bayesian inference for skew-normal semiparametric nonlinear mixed-effects models with covariate measurement errors. *Bayesian Analysis.* **7**(1): 189-210. **PMID:** 23459161
62. **Huang Y.** (2012). Modeling Virologic Response in HIV-1 Infected Patients to Assess Medication Adherence. *Chapter in the Book Antiviral Dru**g**–Aspects of Clinical Use and Recent Advances*, Ed: Patrick Arbuthnot, 51-68. Publisher: InTech (ISBN 978-953-308-72-7)

2011

63. **Huang Y.** Hu X. Joan and Dagne G. (2011). Robust joint modeling of event time and longitudinal data with skewness and measurement errors in covariates. In *JSM 2011 Proceedings, Section on Bayesian Statistics Science*. 851-865.
64. Dagne G.. and **Huang Y.** (2011). Bayesian inference for a nonlinear mixed-effects Tobit model with skew-elliptical distributions. In *JSM 2011 Proceedings, Section on Bayesian Statistics Science*. 792-800.
65. **Huang Y.**, Dagne G. and Lang Wu (2011). Bayesian inference on joint models of HIV dynamics for time-to-event and longitudinal data with skewness and covariate measurement errors. *Statistics in Medicine* **30**:2930-2946. **PMID**: 21805486.
66. **Huang Y.**, Wu H., Holden-Wiltse J. and Acosta P.E. (2011). A dynamic Bayesian nonlinear mixed-effects model of HIV response incorporating medication adherence, drug resistance and covariates. *The Annals of Applied Statistics*. 5 (1): 551–577
67. **Huang Y.** and Dagne G. A. (2011). A Bayesian approach to joint mixed-effects models with a skew-normal distribution and measurement errors in covariates. *Biometrics* **67**: 260–269. **PMID:** 20486924.

68. **Huang Y.** Chen R. and Dagne G.A. (2011). Simultaneous Bayesian inference for linear, nonlinear and semiparametric mixed-effects models with skew-normality and measurement errors in covariates. *The International Journal of Biostatistics.* **7**(1): Article 8. DOI: 10.2202/1557-4679.1292. **PMID:** 22848189

2010

69. **Huang Y.,** Chen R. and Dagne G.A. (2010). Simultaneous Bayesian Inference for Skew-Normal Mixed-Effects Joint Models for Longitudinal Data. In *JSM 2010 Proceedings, Section on Bayesian Statistics Science*. 1376-1390.
70. **Huang Y.** and Dagne G.A. (2010). Skew-normal Bayesian nonlinear mixed-effects models with application to AIDS studies. *Statistics in Medicine* **29**: 2384-2398. **PMID**: 20603815.
71. **Huang Y.**, Wu H. and Acosta P.E. (2010). Hierarchical Bayesian inference for HIV dynamic differential equation models incorporating multiple treatment factors. *The Biometrical Journal.* **52**(4), 470–486. **PMID**: 20661953.
72. Ma J., Dykes C., Wu T., **Huang Y**., Demeter L. and Wu, H. (2010). vFitness: a Web-based computing tool for improving estimation of *in vitro* HIV-1 virus fitness experiments. *BMC Bioinformatics* **11,** 261
73. **Huang Y.** (2010). A Bayesian approach in differential equation dynamic models incorporating clinical factors and covariates. *Journal of Applied Statistics.* **37** (2). 181-199. **PMID**: 20445811. **PMCID**: PMC2863069.

- **Peer-reviewed publications before 2010 which were not listed**

  I published more than 70 peer-reviewed methodological and scientific articles before 2010

TEACHING EXPERIENCE

- **09/05-present at USF:**
  1. Probability models (PhD)
  2. Longitudinal data analysis (PhD)
  3. Applied Bayesian analysis (PhD and Master)
  4. Multilevel data modelling and analysis (PhD and Master)
  5. Biostatistical inference I (Master)
  6. Categorical data analysis (Master)
  7. Linear model analysis of health data (Master)
  8. Biostatistical case studies and collaboration I (Master)
  9. Biostatistics I (Master; online)
  10. Biostatistics II (Master; online)
  11. Biostatistics in society (Undergraduate; online)

- **08/87-06/05 before USF**

  Calculus; Advanced calculus; Probability theory; Introductory statistics; Applied regression analysis; Statistical inference; Linear models; Data collection & analysis; Bayesian methodology in biostatistics; Viral dynamic models

GRADUATE ADVISING ACTIVITIES

I am fully responsible for monitoring and supervising Master/PhD students through whole program process such as selecting research topics, literature review and dissertation proposal with the following engagements.

- Ph.D. Major/Co-Major Professor (2010-present)

	Name	**Dissertation**	**Role**	**Year completed**
1	Zachary Thompson	Statistical estimation of physiologically-based pharmacokinetic models: identifiability, variation, and uncertainty with an illustration of chronic exposure to dioxin and dioxin-like-compounds	Co-major professor	2011
2	Ren Chen	Bayesian inference on mixed-effects models with skew distributions for HIV longitudinal responses	Major professor	2012
3	Xiaosun Lu	A mixture of nonlinear mixed-effects models for CD4 and viral load longitudinal data	Co-major professor	2014
4	Dongyuan Xing	Bayesian zero-inflated models with application to alcohol longitudinal l data	Major professor	2015
5	Das Pamnani	Incidence, persistence, and recurrence of anogenital α- mucosal HPV infections	Co-major professor	2016
6	Hanze Zhang	Bayesian quantile regression-based nonlinear mixed-effects joint models for time-to-event and longitudinal data with multiple features	Major professor	2017

7	Lan Xu	Multivariate joint models with skew distributions for multiple longitudinal data and time-to-event outcome	Major professor	Current
8	Weiwei He	Joint analysis of high-dimensional longitudinal gene expression and risk for islet autoimmunity and type 1 diabetes in a case-control study	Major professor	Current
9	Rui Wu	TBD	Major professor	Current

- MPH/MSPH Advisor (2010-present)

	Name	**Thesis or Special Project**	**Role**	**Year completed**
1	Lizmarie Maldonado	Linear mixed-effects models: applications to the behavioural sciences and adolescent community health	MSPH Advisor	2012
2	Xiaohong Li	Investigating short telomere length as a risk factor for myelodysplastic syndromes	MPH Advisor	2010
3	Jacki Wachtel	Community themes and strengths assessment	MPH Advisor	2010
4	Siew Wong	Relationship of skewness parameter in skew-normal distribution between Sahu's and Azzalini's models with application to aids studies	MPH Advisor	2010
5	Zhengming Chen	Tissue microarray data spatial bias detection and adjustment	MPH Advisor	2011
6	Sangeorzan Emmeline	Risk analysis of non-specific cancer occurenence in participants with radiographic osteoarthritis	MPH Advisor	2011
7	Manfei Xu	Trajectories of CD4 lymphocyte count change at baseline 0-350 cells/mm^3: an analysis of HIV/AIDS patients receiving highly active antiretroviral therapy (HAART) at the Hillsborough County Health Department	MPH Advisor	2011
8	Maya Ozek	Gene expression classifier for carcinoma tumours of unknown primary site of origin	MPH Advisor	2011
9	Anne DeMuth	The distribution of birth defects among ethnic group in Texas	MPH Advisor	2011
10	Yang Ji	Forecasting Florida's long-term care population through 2030	MPH Advisor	2011
11	Nellka Darbinyan	Viral trajectory analysis using ACTG5055 AIDS clinical trial data	MPH Advisor	2012
12	Rossybelle Perales	Trajectories of CD4 lymphopcyte count change: An analysis of HIV/AIDS patients receiving HAART at Hillsborough County Health Department	MPH Advisor	2012
13	Jianxiang Zou	The efficacy of religious service attendance in reducing depressive symptoms: a community-based 30 year longitudinal investigation	MPH Advisor	2012
14	Nicole Ramos	Study of the association between head and neck aquamous cell carcinoma patients who are human pappilomavirus positive (hpv*) and hpv- in regards to age, gender and canobical biological pathway differences	MPH Advisor	2012
15	Tea Reljic	Maintenance therapies for multiple myeloma: a systematic review and meta-analysis	MPH Advisor	2013
16	Pengfei Li	Hillsborough county mosquito larvae data analysis for year 2011 and 2012	MPH Advisor	2014
17	Farina Khalil	Longitudinal study on the relationship between childhood exposure to violence and young adult physical health outcomes	MPH Advisor	2014
18	Jiannong Li	Longitudinal study on the relationship between childhood exposure to violence and obesity in adulthood	MPH Advisor	2015
19	Junmin Zhou	Longitudinal study on how childhood exposure to violence impacts family conflict from age 18 to 26 years	MPH Advisor	2016
20	Weiwei He	Influence of passive smoking on perinatal depressive symptoms	MPH Advisor	2016
21	Ying Ma	Comparison of four indexes for external validity in clinical trials	MPH Advisor	2016
22	Komi Mati	Longitudinal study of the effect of childhood exposure to violence on suicidal ideation	MPH Advisor	2016
23	Yingtao Zhou	Differences in burden, management, and quality of life health indicators among people with arthritis by weight status	MPH Advisor	2017
24	Brock Graham	Joint analysis for effect of longitudinal growth exposure on the risk of type 1 diabetes	MPH Advisor	2017
25	Bryce Applewhite	TBD	MPH Advisor	Current
26	Mason Breitzig	TBD	MPH Advisor	Current
27	Mingze Zhu	TBD	MPH Advisor	Current
28	Shengyan Xiang	TBD	MPH Advisor	Current

- Ph.D. and MPH/MSPH Committee (2010-present)

	Name	**Dissertation/Thesis/Special Project**	**Role**	**Year completed**
1	Rajendra Kadel (PhD in Biostat)	A latent mixture approach to modeling zero- inflated bivariate ordinal data	Member	2013
2	Luis Pieretti (PhD in EOH)	Performanceof a human inhalation challenge exposure sustems	Member	2011
2	Zhihong Jia (PhD in Biostat)	Statistical analyses of chemical mixture: parmacodynamics and departure from additivity	Member	2014
3	Peiyao Chen (PhD in Biostat)	Increase the precision of effect size estimate in interval-censored time to event data using unbalanced design	Member	2016
4	Yang Ji (PhD in Aging Study)	Racial /ethnic differences in long-term care services use among the elderly: trends in the context of changing demographic and health profiles	Member	2016
5	JohannaWilson (PhD in Nursing)	End of life care discussions in end stage heart failure: a clinical judgment analysis	Member	2016
6	Jennifer Fowler (MSPH in EOH)	Indoor environmental quality in an elementary school – measurements of allergen concentrations in carpeting	Member	2010
7	Erin Sanchez (MSPH in EOH	Filtration efficiency of surgical masks	Member	2011
8	Victoria Swaidan (MSPH in Biostat)	Strategies to adjust for response bias in clinical trials: a simulation study	Member	2018

PRESENTATIONS OF INTERNATIONAL CONFERENCES (2010-present)

1. **Yangxin Huang.** Bayesian change-point joint models for multivariate longitudinal and time-to-event data. The 7th IMS-China International Conference on Statistics and Probability, Dalian, China,July 6-10, 2019. *Invited speaker.*
2. Xiang Liu, Kendra Vehik, **Yangxin Huang** et al. Distinct growth phases in early life associated with risk of type 1 diabetes prodrome: The TEDDY Study. The 2019 American Diabetes Association Meeting, San Francisco, CA, June 7-11, 2019. *Contributed speaker*.
3. Xiang Liu, **Yangxin Huang**, Kendra Vehik and Jeffrey Krischer. Bayesian Piecewise Linear Mixed Models with a Random Change Point: An application to study early growth patterns in the development of Type 1 Diabetes. The 2019 ENAR Spring Meeting, Philadelphia, March 24-27, 2019. *Contributed speaker*
4. **Huang Y.** "Bayesian joint models for multivariate longitudinal and event time data with multiple features: an application to diabetes" presented at Georgetown University, Washington DC. September 28, 2018. *Invited speaker*.
5. **Huang Y.** "Multilevel piecewise models with random changepoints for longitudinal data with multiple features" presented at ASA 2018 Joint Statistical Meeting, Vancouver, Canada. July 28—August 2, 2018. *Contributed speaker*
6. **Huang Y. "**Joint Mixture Modeling for Survival-Longitudinal Data with Multiple Features" presented at IDSC Seminar, USF. January, 2017. *Invited speaker.*
7. **Huang Y. "**Multilevel change-point models for longitudinal virologic data with multiple features" presented at Health Informatics Institute, USF. April, 2017. *Invited speaker*.
8. **Huang Y. "**Bayesian Approach on Mixture of Joint Models for Survival and Longitudinal Data with Multiple Features" presented at Huazhong University of Science and Technology, Wuhan, China. November 18, 2016. *Invited speaker*.
9. **Huang Y.** "Quantile regression-based Bayesian nonlinear mixed-effects joint models for survival-longitudinal data with multiple features" presented at The 4th Institute of Mathematical Statistics Asia Pacific Rim Meeting (4th IMS-APRM), Hong Kong. June 27-30, 2016. *Contributed speaker.*
10. **Huang Y.** "Bayesian approach on mixture of joint models for survival and longitudinal data with multiple features" presented at Sapienza University of Rome, Italy. June 25, 2015. *Invited speaker.*
11. **Huang Y.** "Joint mixture models with flexible distributions for longitudinal and time-to-event data" presented at 16th conference of ASMDA international society, Piraeus, Greece. July 3, 2015. *Invited speaker.*
12. **Huang Y.** "Bayesian joint modelling for longitudinal-survival data" presented at Wuhan University, China. March 15, 2014. *Invited speaker*
13. **Huang Y. "**Bayesian bivariate linear mixed-effects models with skewed distributions, with application to AIDS studies" presented at ASA 2013 Joint Statistical Meeting, Montreal, Canada. August 3--8, 2013. *Contributed speaker.*
14. **Huang Y. "**Mixed-effects models with skewed distributions for time-varying HIV viral decay rates" presented at ASA 2013 Joint Statistical Meeting, Montreal, Canada. August 3--8, 2013. *Contributed speaker.*
15. **Huang Y. "**Segmental modeling of viral load changes for HIV longitudinal data with skewness and detection limits" presented at ASA 2012 Joint Statistical Meeting, San Diego, CA. July 28-August 2, 2012. *Contributed speaker.*
16. **Huang Y.** "Joint modeling time-to-event and longitudinal data with skewness and covariate measurement errors: a robust Bayesian approach" presented at the First Joint Biostatistics Symposium, Beijing, China. July 8-19, 2012. *Invited speaker.*
17. **Huang Y.** "A Bayesian Approach in Differential Equation Dynamic Systems for Longitudinal HIV/AIDS Data" presented at Beijing University, China. July 5, 2012. *Invited speaker.*
18. **Huang Y.** "Simultaneous Bayesian Inference for Longitudinal Data with Skewness, Left-Censoring and Covariate Measurement Errors" presented at Academy of Mathematics and Systems Science, Chinese Academy of Sciences, China. July 6, 2012. *Invited speaker*

19. **Huang Y.** "Bayesian inference for linear, nonlinear and semiparametric mixed-effects models for skew-normal responses with an application to AIDS data" presented at Wuhan University, China. June 15, 2012. *Invited speaker.*
20. **Huang Y.** Shumin Zhou and Zhongjun Wang**.**"Piecewise mixed-effects models for evaluating HIV viral load changes" presented at Wuhan University of Technology, China. June 18, 2012. *Invited speaker.*
21. **Huang Y. et. al. "**Bayesian Semiparametric Nonlinear Mixed-Effects Joint Models for Data with Skewness, Missing Responses and Measurement Errors in Covariates". 2012 Spring ENAR meeting, DC, March 30-April 3, 2012. *Invited speaker*
22. Han G., **Huang Y.** et al. "Bayesian Hybrid Inference for Longitudinal and Survival Joint Models". 2012 Spring ENAR meeting, DC, March 30-April 3, 2012. *Invited speaker.*
23. **Huang Y.** "Simultaneous Bayesian Inference for Longitudinal Data with Various Features" presented at the 3rd IMS-China International Conference on Statistics and Probability. Xian, China, July 8-11, 2011. *Invited speaker.*
24. **Huang Y. "**Robust Joint Modeling of Event Time and Longitudinal Data with Skewness and Measurement Errors in Covariates" presented at ASA 2011 Joint Statistical Meeting, Miami, FL. July 30-August 4, 2011. *Contributed speaker.*
25. Chen R., **Huang Y.,** Dagne GA. "Simultaneous Bayesian Inference for Longitudinal Data with Skewness, Detection Limits and Covariates Measured with Errors" presented at Fourth Annual Bayesian Biostatistics Conference. The University of Texas MD Anderson Cancer Center, Houston, Texas USA .January 26 - 28, 2011. Poster.
26. **Huang Y.,** Dagne GA. "Simultaneous Bayesian Inference for Skew-Normal Mixed-Effects Joint Models for Longitudinal Data" presented at ASA 2010 Joint Statistical Meeting, Vancouver, BC, Canada. July 31-August 5, 2010. *Contributed speaker.*
27. **Huang Y.,** Dagne GA. "Bayesian Inference on Joint Models for Time-to-Event and Longitudinal Data with Skewness and Covariate Measurement Errors" presented at 2010 International Conference on Statistical Analysis of Complex Data (SACD), Kunming, China, June 30-July 3, 2010. *Invited speaker.*
28. **Huang Y.,** Dagne GA. "Joint Inference on Semiparametric Nonlinear Mixed-Effects Models with Skew-Normal Distribution for Survival and Longitudinal Data" presented at the First Joint Biostatistics Symposium, Beijing, China. July 15-17, 2010. *Invited speaker.*
29. **Huang Y.** "A dynamic Bayesian nonlinear mixed-effects model of HIV response incorporating medication adherence, drug resistance and covariatess". Department of Statistics and Actuarial Science, Simon Fraser University, Burnaby, BC, Canada. March 19, 2010. *Invited speaker*
30. **Huang Y.** "Modeling Association of Virologic Outcomes with Clinical Factors and Covariates in AIDS Clinical Studies" presented at the 18th Annual International Chinese Statistical Association (ICSA) Applied Statistics Symposium. San Francisco, CA, June 21-24, 2010. *Invited speaker*.

CONSULTING EXPERIENCE

I have extensive experience of statistical consulting periodically starting my PhD study until now

- To conduct study design and protocol development
- To help statistical data analysis and interpretation/presentation of analysis results
- To provide general critique to grant proposal evaluation and preparation
- To provide critical review of manuscript critique and help revise statistical section
- To provide hands-on experience to train graduate students in biostatistical consulting-based statistical technique, data analysis and results interpretation
- To lead administrative role of consulting and collaboration for routine consulting services to medical, public health and other scientific researchers

HONORS AND AWARDS

- 2010-present: Guest Professor; School of Science, Wuhan University of Technology, Wuhan, China
- 1998: Student Paper Award; International Royal Statistical Society Conference, Glasgow, UK

- 1996-1999: The Overseas PhD Research Students Awards; Education Council, UK
- 1996-1999: PhD Studentship Award; Liverpool John Moores University, UK
- 1993: Outstanding Teaching and Research Achievements Award; Council of Hubei Province, China
- 1991: Outstanding Publication Award; The Science &Technology Society of Hubei Province, China

HOSTED AND SUPPORTED VISITING SCHOLARS

- Dr. Weian Du, Wuhan University of Technology, Wuhan, China (2008-2009)
- Dr. Jiaqing Chen, Wuhan University of Technology, Wuhan, China (2012-2013)

PROFESSIONAL ACTIVITIES AND SERVICES

- **Editorial Board of Journals**
  1. 2015-present: Associate Editor of Journal: Metron http://link.springer.com/journal/40300
  2. 2013-present: Editorial Board of Journal: AIDS & Recent Advancements http://www.scigmoid.com/journal/index.php?jouid=journal10001
  3. 2013-present: Editorial Board of Journal: Annals of Biometrics and Biostatistics http://www.jscimedcentral.com/Biometrics/editors.php
  4. 2014-present: Editorial Board of Journal: Austin Biometrics and Biostatistics http://www.austinpublishinggroup.com/biometrics/editorialBoard.php
  5. 2008-2013: Associate Editor of Journal: Computational Statistics and Data Analysis
  6. 2010-2011: Lead Guest Editor for a Special Issue in Journal of Probability and Statistics http://www.hindawi.com/journals/jps/si/735909/

- **Professional Membership**
  1. 2001-present: The American Statistical Association;
  2. 1998-present: The Royal Statistical Society;
  3. 2001-present: The International Chinese Statistical Society;
  4. 2008-present: Institute of Mathematics and Statistics.
  5. 2011-present: American Public Health Association

- **Invited Manuscript Reviewer to Journals (2010-present):**
  1) Journal of Applied Statistics; (2) Biometrics; (3) Biometrical Journal; (4) Statistics in Medicine; (5) Computational Statistics and Data Analysis; (6) Statistical Computation and Simulation; (7) The Annals of Applied Statistics; (8) Journal of the American Statistical Association; (9) Journal of Theoretical Biology; (10) Journal of Infectious Disease; (11) International Journal of Quality, Statistics and Reliability; (12) Journal of Agricultural, Biological, and Environmental Statistics; (13) Mathematical Statistics and Applied Probability （in Chinese）; (14) European Journal of Medical Research; Biostatistics; (15) Statistics in Biosciences; (16) International Journal of Biostatistics; (17) Communications in Statistics - Simulation and Computation; (18) Journal of Virology; (19) Psychosomatic Medicine; (20) Statistics in Biopharmaceutical Research; (21) Statistical Methods in Medical Research; (22) BMC Infectious Diseases; (23) Multivariate Behavioral Research.

- **Panel Reviewer:** Review proposals for National Institute of Health (NIH/NIAID).
- **Session chair and/or organizer for International Conferences (2004-present):**
  1. 2019: The 7th IMS-China International Conference on Statistics and Probability, Dalian, China,July 6-10, 2019.
  2. 2016: The 4th Institute of Mathematical Statistics Asia Pacific Rim Meeting,Hong Kong. June 27-30, 2016
  3. 2012: The First Joint Biostatistics Symposium, Beijing, China. July 8-9, 2012
  4. 2012: The Spring ENAR meeting, DC, March 30-April 3, 2012

5. 2011: The 3rd IMS-China International Conference on Statistics and Probability. Xian, China, July 8-11, 2011
6. 2010: International Conference on Statistical Analysis of Complex Data (SACD), Kunming, China, June 30-July 3, 2010
7. 2010: ASA Joint Statistical International Meeting, Vancouver, Canada, July 31-August 5, 2010
8. 2009: IMS-China International Conference on Statistics & Probability, Weihai
9. 2008: ASA Joint Statistical International Meeting, Denver, UAS
10. 2008: The 1st International Symposium on Biopharmaceutical Statistics, Shanghai
11. 2007: The 15th International Conference of Forum for Interdisciplinary Mathematics on Interdisciplinary Mathematical & Statistical Techniques, Shanghai
12. 2006: The 5th Annual Hawaii International Conference on Statistics, Mathematics and Related Fields, Honolulu, Hawaii
13. 2004: The 6th International Chinese Statistical Association (ICSA) International Conference, Singapore.

- **University Services**
  1. USF Faculty Senate General Education Council Committee Member (2014-2017)
  2. USF Faculty Senate Research Council Committee Member (2008-2011)
  3. USF Internal Research Grant Reviewer and Review Panellist (2008-present)
  4. Steering Committee Member of Chinese Cultural Center of USF Confucius Institute (Fall 2008-present)
- **College Services**
  1. 2006-2009: Member of College Academic Programs and Curriculum Committee
  2. Poster Judge: USF Health Research Day (2008,2010,2013,2014,2015, 2016)
  3. 2014-2017: Member of College Research Committee
- **Departmental Services**
  1. 2005-present: Member in the Departmental Biostatistical Doctor Admission Committee
  2. 2005-present: Member in the Departmental Biostatistical Master Admission Committee
  3. 2005-present: Member in the Departmental Academic Program and Curriculum Committee
  4. 2012-2016: Co-Director of PhD Program in Biostatistics
  5. 2014-2015: Co-Director of PhD Program in Epidemiology
  6. 2011: Co-Chair of Departmental Faculty Search Committee
  7. 2014: Member of Departmental Faculty Search Committee
  8. 2013-2016: Member of Departmental APT Committee

PROFESSIONAL SKILLS

- **Computer Environments:** PC compatibles, Windows/Windows NT, UNIX
- **Software Technologies:** Extensive use of MS office; R, Rstan, SAS, WinBUGS, SPSS and Matlab
- **Programming:** Proficient use of Fortran