

Yanna Song

CONTACT INFORMATION

Office Address: Vanderbilt University School of Medicine
Department of Biostatistics
D 2218 Medical Center North
Nashville, TN 37232

Phone: 615-343-0209 (Office)

E-mail: yanna.song@vanderbilt.edu

Web Site: <http://biostat.mc.vanderbilt.edu/wiki/Main/YannaSong>

EDUCATION

M.S. in Biostatistics, University of Minnesota, September 2004
“Cause-specific failure probability for AIDS trial” (Advisor: Dr. Chap Le)

M.S. in Chemistry, University of Minnesota, July 2003
“Determination of Trace Elements in Seawater by Inductively Coupled Plasma Mass Spectrometry”
(Advisor: Dr. Donald Harris)

Minor: Applied and Computational Mathematics (Advisor: Dr. Kang James)

B.S. in Analytical Chemistry, Lanzhou University, Gansu, China
“Spectrophotometric Determination of Rhodium by 2-(2-benzothiazolylazo)-5-dimethylamino benzoic Acid (BTAMB)” (Advisor: Dr. Huilan Zhou)

WORKING EXPERIENCE

October 2007 - present

Statistician III, Department of Biostatistics, Vanderbilt University

September 2004 - September 2007

Statistician II, Department of Biostatistics, Vanderbilt University

Provide statistical expertise in the design of research projects, focusing on fundamental issues including specification of hypotheses and basic study design. Assist the research team in the design of methods to collect information, including the design of questionnaires and other data collection instruments, following the study design developed for the research program. Participate in the development of operations and procedures for the collection, editing, verification and management of data. Assist in preparing preliminary plan for analysis of a research study; present such plans to the research team, and prepare final analysis plans based on team input. Implement planned analysis, including data verification and data correction as necessary, using one or more systems of computer hardware and statistical analysis software for the management and analysis of data. Participate in the preparation of written reports and oral presentations summarizing data analysis results, including detailed description of statistical methods, detailed analysis of results, and synthesis of conclusions from summary tables.

SUMMARY OF QUALIFICATIONS

- M.S. in Biostatistics. Ability to prioritize, meet deadlines and multi - task. Ability to work independently and as a team member.
- Proficient with R/SAS.
- Proficient with sample size calculations and advanced statistical modeling techniques such as survival analysis, repeated measures analysis using Mixed Effects Models and GEE.

- Extensive knowledge of study designs for clinical trials and clinical studies.
- Experienced with STATA, SPSS, WinBUGS, nQuery Advisory, MatLab, PS, C, C++, Perl, Excel and Access.

PROFESSIONAL ORGANIZATION

2004 - Present, Member, The American Statistical Association (ASA)

2005 - Present, Member, Biometric Society (ENAR)

Other Service

1. **2004:** Book and periodicals organization, department library.
2. **2005-2006:** Kennedy Center Statistics and Methodology Core webpage development and maintenance.
3. **2005:** Kennedy Center Statistics and Methodology Core survey analysis.
4. **2006:** CQI project - more efficient use of paper
5. **2007:** Back translation - RASS and CAM-ICU Worksheet (Chinese Simplified)
6. **2008-2010:** CQI project - publication poster
7. **2010:** Bi-monthly Supervisees Survey
8. **2012:** MS Thursday meeting organization
9. **Participates in recruiting and interviewing.**

PEER - REVIEWED PUBLICATION

1. Hill MF, Patel AV, Murphy A, Smith HM, Pentassuglia L, Peng X, Galinda CL, Odiete O, Friedman DB, Kronenberg M, Zheng S, Zhao Z, **Song Y**, Harrell FE, Srinivas M, Ganguly A, Laci J, Parry T, Caggiano AO, Sawyer DB. Intravenous Glial Growth Factor 2 (GGF2) Isoform of Neuregulin-1 β Improves Left Ventricular Function, Gene and Protein Expression in Rats after Myocardial Infarction. PLOS ONE (In press)
2. Shoemaker BM, Muhammad R, Parvez B, White BW, Streur M, **Song Y**, Stubblefield T, Kucera G, Blair M, Rytlewski J, Parvathaneni S, Nagarakanti R, Saavedra P, Ellis C, Whalen PS, Roden DM, Darbar D. Common Atrial Fibrillation Risk Alleles at 4q25 Predict Recurrence after Catheter-based Atrial Fibrillation Ablation. Heart Rhythm (In press).
3. Boyd SB, Walters AS, **Song Y**, Wang L. Comparative Effectiveness of Maxillomandibular Advancement and Uvulopalatopharyngoplasty for the Treatment of Moderate to Severe Obstructive Sleep Apnea. Journal of Oral and Maxillofacial Surgery (In press).
4. Alamanda VK, Crosby SN, Archer KR, **Song Y**, Schwartz HS, Holt GE. Amputation for extremity soft tissue sarcoma does not increase overall survival: A retrospective cohort study. Journal: Eur J Surg Oncol (In press).
5. Alamanda VK, Crosby SN, Archer KR, **Song Y**, Schwartz HS, Holt GE. Predictors and clinical significance of local recurrence in extremity soft tissue sarcoma. Acta Oncol. 2012 Aug 9. [Epub ahead of print]
6. Archer KR, Phelps KD, Seebach CL, **Song Y**, Riley LH 3rd, Wegener ST. Comparative study of short forms of the tampa scale for kinesiophobia: fear of movement in a surgical spine population. Arch Phys Med Rehabil. 2012 Aug;93(8):1460-2.

7. Alamanda VK, Crosby SN, Archer KR, **Song Y**, Schwartz HS, Holt GE. Primary excision compared with re-excision of extremity soft tissue sarcomas - is anything new? *J Surg Oncol*. 2012 Jun 1;105(7):662-7.
8. Adkins KW, Goldman SE, Fawkes D, Surdyka K, Wang L, **Song Y**, Malow BA. A pilot study of shoulder placement for actigraphy in children. *Behavioral Sleep Medicine*. 2012;10(2):138-47.
9. Seebach CL, Kirkhart M, Lating JM, Wegener ST, **Song Y**, Riley LH 3rd, Archer KR. Examining the role of positive and negative affect in recovery from spine surgery. *Pain*. 2012Mar;153(3):518-25.
10. Archer KR, Abraham CM, **Song Y**, Obremskey WT. Cognitive-Behavioral Determinants of Pain and Disability 2-Years after Traumatic Injury: A Cross-Sectional Survey Study. *J Trauma*. 2011 Jul 29. [Epub ahead of print]
11. Even JL, Crosby CG, **Song Y**, McGirt MJ, Devin CJ. Effects of Epidural Steroid Injections on Blood Glucose Levels in Patients with Diabetes Mellitus. *Spine (Phila Pa 1976)*. 2012 Jan 1;37(1):E46-50.
12. Zuckerman S, **Song Y**, Obremskey W. Understanding the Concept of Medialization in Scapula Fractures. *J Orthop Trauma*. 2012 June;26(6):350-7.
13. Even JL, McCullough K, Braley BA, Hohl J, **Song Y**, Lee JY, McGirt M, Devin CJ. Clinical Indications for Arterial Imaging in Cervical Trauma. *Spine (Phila Pa 1976)*. 2012 Feb 15;37(4):286-91.
14. Jackson JC, Archer KR, Bauer R, Abraham C, **Song Y**, Greevey R, Guillaumondegui O, Ely EW, Obremskey W. A Prospective Investigation of Long-Term Cognitive Impairment and Psychological Distress in Moderately versus Severely Injured Trauma ICU Survivors without Intracranial Hemorrhage. *J Trauma* 2011 Oct;71(4):860-6.
15. Archer KR, Wegener ST, Seebach C, **Song Y**, Skolasky RL, Thornton C, Khanna AJ, Riley LH. The Effect of Fear-Avoidance Beliefs on Pain and Disability after Surgery for Lumbar and Cervical Degenerative Conditions. *Spine (Phila Pa 1976)*. 2011 Sep 1;36(19):1554-62.
16. McCullough KA, Even JL, Braly BA, Hohl JB, **Song Y**, Lee JY, McGirt MJ, Devin CJ. Clinical indications for arterial imaging in cervical trauma. *Tenn Med*. 2011 Sep;104(8):41-2.
17. Crosby CG, Even JL, **Song Y**, Block JJ, Devin CJ. Diagnostic abilities of magnetic resonance imaging in traumatic injury to the posterior ligamentous complex: the effect of years in training. *Spine J*. 2011 Aug;11(8):747-53. Epub 2011 Aug 12.
18. Arain AM, **Song Y**, Bangalore-Vittal N, Ali S, Jabeen S, Azar NJ. Long term video/EEG prevents unnecessary vagus nerve stimulator implantation in patients with psychogenic nonepileptic seizures. *Epilepsy Behav*. 2011 Aug;21(4):364-6.
19. Pawate S, Wang L, **Song Y**, Sriram. Analysis of T2 intensity by MRI of deep nuclei in MS patients: Role of immunotherapies on brain iron. *Journal of Neuroimaging*. *J Neuroimaging*. 2012 Apr;22(2):137-44.
20. Bagai K, **Song Y**, Ling JF, Malow BA, Black BK, Biaggioni I, Robertson D, Raj SR. Sleep Disturbances and Diminished Quality of Life in Postural Tachycardia Syndrome. *Journal of Clinical Sleep Medicine*. 2011 Apr 15;7(2):204-10.
21. Lee CD, **Song Y**, Peltier AC, Jarquin-Valdivia AA, Donofrio PD. Muscle Ultrasound Quantifies the Rate of Reduction of Muscle Thickness in ALS. *Muscle and Nerve*. 2010 Nov;42(5):814-9.
22. Azar NJ, Lagrange AH, Wang L, **Song Y**, Abou-Khalil BW. Transient Improvement after Brief Antiepileptic Drug Withdrawal in the Epilepsy Monitoring Unit- Possible Relationship to AED Tolerance. *Epilepsia* 2010 May;51(5):811-7.
23. Peltier AC, Garland E, Raj SR, Sato K, Black B, **Song Y**, Wang L, Biaggioni I, Diedrich A, Robertson D. Distal Sudomotor Findings in Postural Tachycardia Syndrome. *Clinical Autonomic Research* 2010 Apr;20(2):93-9.

24. Mengesha T, Abu-Ata M, Haas KF, Lavin PJ, Sun DA, Konrad PE, Pearson M, Wang L, **Song Y**, Abou-Khalil BW. Visual Field Defects after Selective Amygdalohippocampectomy and Standard Temporal Lobectomy. *Journal of Neuro-Ophthalmology*. 2009; 29(3): 208-213.
25. Peltier A, Smith AG, Russell JW, Sheikh K, Bixby B, Howard J, Goldstein J, **Song Y**, Wang L, Feldman EL, Singleton JR. Reliability of quantitative sudomotor axon reflex testing and quantitative sensory testing in neuropathy of impaired glucose regulation. *Muscle Nerve*. 2009 Mar 3;39(4):529-535.
26. Malow BA, Crowe C, Henderson L, McGrew SG, Wang L, **Song Y**, Stone WL. A sleep habits questionnaire for children with autism spectrum disorders. *J Child Neurol*. 2009 Jan;24(1):19-24.
27. Malow BA, Foldvary-Schaefer N, Vaughn BV, Selwa LM, Chervin RD, Weatherwax KJ, Wang L, **Song Y**. Treating Obstructive Sleep Apnea in Adults with Epilepsy: A Randomized Pilot Trial. *Neurology* 2008; 71(8):572-7.
28. Selwa LM, Marzec ML, Chervin RD, Weatherwax KJ, Vaughn BV, Foldvary-Schaefer N, Wang L, **Song Y**, Malow BA. Sleep staging and respiratory events in refractory epilepsy patients: Is there a first night effect? *Epilepsia*. 2008 Dec;49(12):2063-8.
29. Azar NJ, Wright AT, Wang L, **Song Y**, Abou-Khalil BW. Generalized Tonic-clonic Seizures after Acute Oxcarbazepine. *Neurology* 2008; 70: 2187-2188.
30. Rothney MP, Apker GA, **Song Y**, Chen KY. Comparing the performance of three generations of ActiGraph accelerometers. *J Appl Physiol*. 2008 Oct;105(4):1091-7.
31. Hutchison KN, **Song Y**, Wang L, Malow BA. Analysis of sleep parameters in patients with obstructive sleep apnea studied in a hospital vs. a hotel-based sleep center. *J Clin Sleep Med*. 2008 Apr 15;4(2):119-22.
32. Bagai K, Wilson JR, Khanna M, **Song Y**, Wang L, Fisher MA. Electrophysiological Patterns of Diabetic Polyneuropathy. *Electromyography and Clinical Neurophysiology* 2008; 48(3-4):139-45.
33. Azar NJ, Wang L, **Song Y**, Abou-Khalil BW. Temporal pattern of oxcarbazepine and phenytoin withdrawal seizures during epilepsy monitoring. *Epilepsy Res*. 2008 Mar;79(1):78-83.
34. Azar NJ, Tayah TF, Wang L, **Song Y**, Abou-Khalil BW. Postictal breathing pattern distinguishes epileptic from nonepileptic convulsive seizures. *Epilepsia*. 2008 Jan;49(1):132-7.
35. McGrew S, Malow BA, Henderson L, Wang L, **Song Y**, Stone WL. Developmental and behavioral questionnaire for autism spectrum disorders. *Pediatr Neurol*. 2007 Aug;37(2):108-16.
36. Peltier AC, Consens FB, Sheikh K, Wang L, **Song Y**, Russell JW. Autonomic dysfunction in obstructive sleep apnea is associated with impaired glucose regulation. *Sleep Med*. 2007 Mar;8(2):149-55.
37. Jackson JC, Obremskey W, Bauer R, Greevy R, Cotton BA, Anderson V, **Song Y**, Ely EW. Long-term cognitive, emotional, and functional outcomes in trauma intensive care unit survivors without intracranial hemorrhage. *J Trauma*. 2007 Jan;62(1):80-8.

CONTINUING EDUCATION AND SKILLS ENHANCEMENT

1. "Introduction to Analysis of Extremes: Univariate and Multivariate Cases" Dan Cooley. Joint Statistical Meeting 2012.
2. "Smoothing Spline Models and Their Applications". Yuedong Wang. Joint Statistical Meeting 2012.
3. "A Smattering of Stata: Fundamentals, Multilevel Models and Multiple Imputation, and Reproducible Research". Bill Rising. June 25-26, 2012.
4. "Modern Applied Statistics with". Bill Venables. R User Conference 2012.

5. "Predictive modeling with R and the caret Package". Max Kuhn. R User Conference 2012.
6. "Fitting and evaluating mixed models using lme4". Douglas Bates. R User Conference 2012.
7. "Scientific Writing" Judith Swan. June 15- June 16 2010.
8. "Fundamental Statistical Concepts in Presenting Data: Principles for Constructing Better Graphics". Rafe Donahue. July 21 2010.
9. "Data Visualization" Hadley Wickham. July 27 2010.
10. "2008 Bayesian Biostatistics Conference". Texas M. D. Anderson Cancer Center.
11. "Practical Bayesian Clinical Trial Design" 2007 Joint Statistical Meeting
12. "Regression Modeling Strategies". 2006, Instructor: Dr. Frank E. Harrell.
13. "Intermediate R Use and Programming". 2006, International Biometric Society.
14. "Clinical Trial". Audit. 2005. Instructor: Dr. Yu Shyr.
15. "An Introduction to Statistical Modeling With PROC GLIMMIX". 2006 International Biometric Society.
16. "Semiparametric Regression". Joint Statistical Meeting 2005.
17. "GLMM and GEE Modeling for Complex, Non-Gaussian Correlated Data". 2005 International Biometric Society.
18. "Sample Size Analysis in Study Planning with SAS Proc Power and Glimpower". 2005 International Biometric Society.
19. "Visual Explanations, Envisioning Information, and the Visual Display of Quantitative Information". 2005, Edward Tufte.

RESEARCH INTERESTS

- Clinical Trial
- Survival Analysis
- Mixed Model and Longitudinal Data Analysis
- Statistical Graphics
- Data Management

PROFESSIONAL EXPERIENCE

Teaching Assistant in Biostatistics, University of Minnesota, 2002-2004

Courses: Biostatistics I and II, Biostatistical Methods, Introduction to SAS Programming, ANOVA and Study Design.

Led computer laboratory sessions of SAS/R for up to 24 students. During weekly office hours, I worked with graduate students from a variety of health-science backgrounds, helping them to solve problems in introductory courses, statistical theory or SAS/R coding. Assisted more advanced students with statistical analyses and basic data management.

Teaching Assistant in Chemistry, University of Minnesota, 2000-2002

Courses: General Chemistry I and II, Introduction to General Organic and Biological Chemistry, Organic Chemistry I and II, Quantitative Analysis, Honor Course: General Chemistry.

Led chemistry labs, demonstrated procedures and ensuring the labs were done safely and correctly.

Taught recitation sections, showed how to solve the chemistry problems and led discussion.

MS Research:(Advisor: Dr. Chap Le)

- Compared the performance of the cumulative incidence estimator and the 1-Kaplan-Meier survival estimator for the cause - specific probability of recurrence of PCP in the presence of competing risk.
- Wrote SAS macro to accomplish the calculation of the cause-specific probability estimator.
- Used SAS G-plot to draw survival curves
- Analyzed data from a clinical trial with 310 AIDS patients intended to compare two treatments for prevention of the recurrence of PCP.

OPERATING SYSTEMS

WINDOWS, UNIX, LINUX

REFERENCE: Available upon request