

## CURRICULUM VITAE

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### **Office Address:**

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### **EDUCATION:**

- 1992 Ph.D. University of Minnesota, Minneapolis, Minnesota  
Major: Biostatistics  
Thesis advisor: Thomas A. Louis
- 1984 M.S. University of Minnesota, Minneapolis, Minnesota  
Major: Statistics
- 1981 B.A. National Cheng-Chi University, Taipei, Taiwan  
Major: Statistics

### **POSITIONS HELD:**

- 1981 – 1982 *Teaching Assistant.* National Cheng-Chi University
- 1982 – 1984 *Teaching Assistant.* University of Minnesota, Department of Statistics, Minneapolis, Minnesota
- 1984 – 1985 *Statistician, Tor Dahl & Associates*
- 1985-1988 *Statistical Analyst,* Division of Epidemiology, University of Minnesota, Minneapolis, Minnesota
- 1988 – 1991 *Research Assistant.* Coordinating Centers for Biostatistics Research, University of Minnesota, Minneapolis, Minnesota
- 1991 – 1992 *Research Associate.* Coordinating Centers for Biostatistics Research, University of Minnesota, Minneapolis, Minnesota. Collaborated with investigators on associating the risk factors with cardiovascular diseases from the data collected from the Multiple Risk Factors in Cardiovascular Disease study, designed AIDS clinical trials, and conducted statistical research with application to clinical trials.

- 1992 – 2001 *Mathematical Statistician*. NHLBI/NIH, Office of Biostatistics Research. Responsible for providing technical assistance and review to Program Staff on the selection of contracts for Data Coordinating Centers, including development and specification of the work scope and technical oversight. Provided technical direction in the application of statistical methodology to clinical trials. Supported program staff designing and monitoring clinical trials. Collaborated with NHLBI investigators in the design and analysis of heart disease studies. Conducted independent statistical research in clinical trials, and health and epidemiological fields.
- 2001 – Present *Mathematical Statistician*. NCI/NIH, Biometric Research Program, Division of Cancer Treatment and Diagnosis. Collaborating with investigators in Center for Cancer Research (CCR), NCI on the design and analysis of genomic studies and clinical studies in the area of radiation oncology, pediatric oncology, molecular imaging, and urologic oncology. Conduct independent research in the development of new methodologies and techniques in mathematical and/or applied statistics applicable to cancer research and related studies.

**PROFESSIONAL SOCIETIES:**

American Statistical Association, Biometric Society, International Chinese Statistical Association

**HONORS AND AWARDS:**

- 1991 University of Minnesota, Graduate school fellowship
- 1991 Biometric Society (ENAR) John Van Ryzin Best Student Paper Award, prize competition for student papers presented at Biometric Society (ENAR) Spring Meetings, Houston, Texas
- 1992 Delta Omega Honorary Public Health Society
- 2006 Teaching award, Center for Information Technology, National Institutes of Health, 2006
- 2007 Fellow of the American Statistical Association: For innovative contributions to the analysis of survival data; for effective collaborative research related to cancer and heart disease; and for outstanding service to the profession.
- 2019 NICHD Partnership Award
- 2020 NCI Special Act Award

**EDITORIAL WORK:**

- 1999 – 2003 Associate Editor, *Controlled Clinical Trials*
- 2000 – 2001 Associate Editor, *Lifetime Data Analysis*
- 2006 – Present Associate Editor, *Statistics in Medicine*
- 2008 – 2010 Associate Editor, *Statistica Sinica*
- 2012 – 2018 Associate Editor, *Journal of the American Statistical Association, Application & Case Studies*

**MENTORING:**

2001-2005 Aleksandra M. Michalowska, Postdoctoral Fellow  
2003-2005 Huaitian Liu, Postdoctoral Fellow

**PROFESSIONAL ACTIVITIES:****Elected Officer:**

2004 – 2005 *Treasurer*, Biometric Society (ENAR)  
2009 – 2011 *Member*, Biometric Society (ENAR) Regional Committee Board

**Committee Appointments:**

1995 *Member*, ENAR Spring Meeting Program Committee  
1999 *Member*, ENAR Student Paper Award Committee  
2002 *Member*, ENAR Education Advisory Committee  
2002 Program Chair, ENAR 2002 Spring Meeting, Washington D.C.  
2002-2004 *Member*, ENAR Regional Advisory Board  
2003-2005 *Member*, American Statistical Association Committee on Meetings  
2016 ICSA nomination committee

**Organizing Invited Sessions:**

1995 Organizer and Chair of the invited session entitled “Analysis of Multivariate Survival Data“, ENAR Spring Meeting, Birmingham, Alabama  
2002 Organizer of the invited session entitled “Recent Advances in Estimating Diagnostic Error Without a Gold Standard“, ENAR Spring Meeting, Washington D.C.  
2006 Organizer of the invited session entitled “Recent Advances in the Analysis of Association for Multivariate Failure Time Data“, ENAR Spring Meeting, Tampa, Florida  
2019 Organizer and chair of the topic contributed session entitled “Recent Advances in the Design and Analysis of Multi-Reader Imaging Studies“, JSM, Denver, Colorado

**External Grant Review:**

Reviewer for NIAID, 1997  
Reviewer for US-Israel Binational Science Foundation, 2001  
Reviewer for Academia Sinica, 2010

**Review for Tenure and Promotion:**

National Cancer Institute, 2002, 2004, 2006  
Rutgers University, Department of Biostatistics, 2006  
University of Virginia, School of Medicine, 2009, 2011  
Emory University, Department of Biostatistics, 2013

**Search Committee:**

Tenure-track investigator, Biostatistics Branch, Division of Cancer Epidemiology and Genetics,

National Cancer Institute, 2012  
 Chief, Biostatistics and Bioinformatics Branch, *Eunice Kennedy Shriver* National Institute of Child Health and Human Development, 2019  
 Tenure-track investigator, Biostatistics Branch, Division of Cancer Epidemiology and Genetics, National Cancer Institute, 2020

**TEACHING:**

Lectures:

- 1996-2001 Lectures on survival analysis in Core Curriculum in Clinical Research course, National Institute of Health.
- 1998 Basic principles of survival analysis, National Heart, Lung and Blood Institute.

Short Courses:

- 2002-2010 Statistical analysis of gene expression microarray data, National Institute of Health.
- 2017 Analysis of multivariate failure time data with application to family/genetic studies, Lifetime Data Analysis Conference, Storrs, Connecticut, 2017.

**DATA SAFETY AND MONITORING BOARD/PROTOCOL REVIEW COMMITTEE:**

- 2000-2007 Member, hematology intramural Data and Safety Monitoring Board, National Heart, Lung and Blood Institute (NHLBI)
- 2010-Present Member, NIAID Hematopoietic Stem Cell Transplant Data Safety Monitoring Board
- 2015-Present Member, NIAID Autoimmune Data Safety Monitoring Board
- 2018-2020 Member, Pediatric Heart Network, NHLBI

**MAJOR COMMITTEES of CLINICAL TRIALS:**

- 1993-2001 Member, T-cell Depletion Trial (TCD), National heart, Lung and Blood Institute
- 1994-2001 Member, Steering Committee, Atrial Fibrillation follow-up Investigation of Rhythm Management (AFFIRM) Study, National Heart, Lung and Blood Institute
- 1994-2001 Member, Activity Counseling Trial (ACT), National Heart, Lung, and Blood Institute
- 1998-2001 Member, Steering Committee, Mode Selection Trial (MOST), National Heart, Lung, and Blood Institute
- 1999-2001 Member, Steering Committee, Multi-ethnic study of Atherosclerosis (MESA) Study, National Heart, Lung, and Blood Institute
- 1999-2001 Member, Steering Committee, Feasibility of Tetinoid Therapy for Emphysema (FORTE) Clinical Trial, National Heart, Lung, and Blood Institute

#### PEER REVIEWED PUBLICATIONS:

1. Neaton J, Blackburn H, Jacobs D, Kuller-Lee D, Sherwin R, Shih J, Stamler J, Wentworth D. Serum cholesterol and mortality: findings for men screened in the Multiple Risk Factor Intervention Trial. *Archives of Internal Medicine* 152: 1490-1500, 1992.
2. Flack J, Neaton J, Grimm R, **Shih J**, Cutler J, Ensrud K, McMahon S. Blood pressure and mortality among men with prior myocardial infarction. *Circulation* 92: 2437-45, 1992.
3. **Shih JH**, Louis TA. Assessing gamma frailty models for clustered failure time data. *Lifetime Data Analysis* 1: 205-20, 1995
4. **Shih JH**. Sample size calculation for complex clinical trials with survival time endpoints. *Controlled Clinical Trials* 16: 395-407, 1995.
5. **Shih JH**, Louis TA. Inferences on the association parameter in copula models for bivariate survival data. *Biometrics* 51: 1384-99, 1995.
6. **Shih JH**, Louis TA. Tests of independence for bivariate survival data. *Biometrics* 52: 1440-49, 1996.
7. Dugi KA, Feuerstein IM, Hill S, **Shih JH**, Santamarina-Fojo S, Brewer HB Jr, Hoeg JM. Lipoprotein lipase correlates positively and hepatic lipase inversely with calcific atherosclerosis in homozygous familial hypercholesterolemia. *Arteriosclerosis, Thrombosis, and Vascular Biology* 17: 354-64, 1997.
8. Wyse DG, Anderson JL, Antman EM, Cooper ES, Dalquist JE, Davis KB, Greene HL, Mickel MC, Dimarco JP, Domanski MJ, Rosenbert Y, Schron EB, **Shih JH**, Epstein AE, Gersh BJ, Jenkins LS, Saksena S, Sherman DG, Steinberg JS, Waldo AL. Atrial fibrillation follow-up investigation of rhythm management – The AFFIRM study design. *American Journal of Cardiology* 79: 1198-1202, 1997.
9. Blair SN, Applegate WB, Dunn AL, Ettinger WH, Haskell WL, King AC, Morgan TM, **Shih JH**, and Simons-Mortan D.G. (1998). Activity Counseling Trial (ACT): Rationale, Design, and Methods. *Medicine and Science in Sports and Exercise* 30: 1097-1106, 1998.
10. **Shih JH**. A goodness-of-fit test for association in a bivariate survival model. *Biometrika* 85: 189-200, 1998
11. Fay MP, **Shih JH**. Permutation tests using estimated distribution functions. *Journal of the American Statistical Association* 93: 387-96, 1998.
12. **Shih JH**. Modeling multivariate discrete failure time data. *Biometrics* 54: 330-43, 1998.
13. **Shih JH**, Fay MP. A class of permutation tests for stratified survival data. *Biometrics* 55: 1156-61, 1999.

14. **Shih JH**, Albert PS. Latent model for correlated binary data with diagnostic error. *Biometrics* 55: 1232-35, 1999.
15. Mohiddin SA, Begley D, **Shih JH**, Fananapazir L. Myocardial bridging does not predict sudden death in children with hypertrophic cardiomyopathy but is associated with more severe cardiac disease. *Journal of American College of cardiology* 36:2270-78, 2000.
16. Chatterjee N, **Shih JH**, Hartge P, Brody L, Tucker M, Wacholder S. Association and aggregation analysis using kin-cohort designs with applications to genotype and family history data from the Washington Ashkenazi Study. *Genetic Epidemiology* 21: 123-38, 2000.
17. Fananapazir L, Mohiddin SA, Begley D, **Shih JH** (2001). Myocardial bridging does not predict sudden death in children with hypertrophic cardiomyopathy but is associated with more severe cardiac disease - Reply. *Journal of American College of Cardiology* 38, 922.
18. Simons-Morton DG, Morgan T, Haskell W, King A, Applegate W, Blair S, Albright C, Cohen S, Ribisl P, O'Toole M, **Shih J**. Effects of physical activity counseling in primary care – The activity counseling trial: A randomized controlled trial. *Journal of American Medical Association* 286: 677-87, 2001.
19. Albert PS, McShane LM, **Shih JH** and the U.S. National Cancer Institute Bladder Tumor Marker Network. Latent modeling approaches for assessing diagnostic error in P53 immunohistochemical assays in bladder cancer without a gold standard. *Biometrics* 57: 610-19, 2001.
20. Proschan MA, McMahon RP, **Shih JH**, Hunsberger SA, Geller NL, Wittes J, Knatterud G. Statistical properties of the Wittes, Lakatos, and Probstfield imputation method in clinical trials. *Journal of Statistical Planning and Inference* 96: 155-65, 2001.
21. Chatterjee N, **Shih JH**. A bivariate mixture model for modeling familial association in diseases. *Biometrics* 57: 779-86, 2001.
22. **Shih JH** and Chatterjee, N. Survival analysis of family data from case- control studies. *Biometrics* 58: 502-09, 2002.
23. Vasselli J, **Shih JH**, Iyengar SR, Maranchie J, Riss J, Worrell R, Torres-Cabala C, Tabios R, Mariotti A, Stearman R, Merino R, Walther MW, Simon R, Klausner R, Linehan WM. Predicting survival in patients with metastatic kidney cancer by gene expression profiling in the primary tumor. *Proceedings of National Academy of Sciences*, 100: 6958-63, 2003.
24. Su H, Hu N, **Shih J**, Hu Y, Wang O, Chuang EY, Roth MJ, Wang C, Goldstein AM, Ding T, Dawsey SM, Giffen C, Emmert-Buck MR., Taylor PR. Gene expression in esophageal squamous cell carcinoma reveals highly consistent molecular profiles and is related to a family history of upper gastrointestinal cancer. *Cancer Research*, 63: 3872-76, 2003.
25. Dobbin K, **Shih JH**, Simon R. Statistical design of reverse dye microarrays. *Bioinformatics* 19: 803-10, 2003.

26. Dobbin K, **Shih JH**, Simon R. Questions and answers on design of dual-label microarrays for identifying differentially expressed genes. *Journal of the National Cancer Institute* 95: 1362-69, 2003.
27. Albert PS, **Shih JH**. Modeling tumor growth with random onset. *Biometrics* 59: 897-906, 2003.
28. Chatterjee N, **Shih JH**. On use of bivariate survival models with cure fraction. *Biometrics* 59: 1184-85, 2003.
29. McShane LM, **Shih JH** and Michalowska AM. Statistical issues in the design and analysis of microarray studies in animal models. *Journal of Mammary Gland Biology and Neoplasia* 8 359-74, 2003.
30. Fukuoka J, Fujii T, **Shih JH**, Dracheva T, Hewitt S, Travis WD, Jen J. Chromatin remodeling factors in non-small cell lung cancer, cellular location of BRM and coexpression with BRG1 are important prognostic indicators. *Clinical Cancer Research* 10: 4314-24, 2004.
31. Desai KV, Michalowska A, Kondaiah P, Ward JM, **Shih JH**, and Green JE. Gene expression profiling identifies Pten as a candidate apoptosis mediator in androgen depleted rat ventral prostate. *Molecular Endocrinology* 18:2895-2907, 2004.
32. Donniger H, Bonome T, Radonovich M, Pise-Massion C, Brady J, **Shih JH**, Barrett JC, and Birrer M. Whole genome expression profiling of advance stage papillary serous ovarian cancer reveals activated pathways. *Oncogene* 23: 8065-77, 2004.
33. **Shih JH**, Michalowska AM, Dobbin K, Ye Y, Qiu TH, Green JE. Effects of pooling mRNA in microarray class comparisons. *Bioinformatics* 20: 3318-25, 2004.
34. Dobbin K, **Shih JH** and Simon R. Comment on "Evaluation of the gene specific dye bias in cDNA microarray experiments". *Bioinformatics* 21: 2803-04, 2005.
35. Tsurutani J, Fukuoka J, Tsurutani H, **Shih JH**, Hewitt SM, Jen J, Dennis PA. Evaluation of two phosphorylation sites improves the prognostic significance of Akt activation in NSCLC tumors. *Journal of Clinical Oncology* 24:306-14, 2006.
36. Mayburd AL, Martinez A, Sackett D, Liu H, **Shih JH**, Tauler J, Avis I, Mulshine JL. Ingenuity network assisted transcription profiling: Identification of new pharmacological mechanism for MK886. *Clinical Cancer Research* 12: 1820-27, 2006.
37. Chatterjee N, Zeynep K, **Shih JH**, Gail M. Case-control study with family history data: a combined approach of kin-cohort and case-control analysis. *Biometrics* 62: 36-48, 2006.
38. Wang H, Owens JO, **Shih JH**, Li M, Bonner RF, Mushinski, JF. Histological staining method preparatory to laser capture microdissection significantly affects detection of mRNAs in microarray hybridization. *BMC Genomics* 7:97, 2005.
39. Lu SE, **Shih JH**. Case-cohort designs and analysis of clustered failure time data. *Biometrics* 62: 1138-48, 2006.

40. Fukuoka J, Dracheva T, **Shih JH**, Hewitt SM, Travis, WD, Jen J. Desmoglein 3 as a prognostic indicator for pulmonary carcinoid tumors. *Human Pathology* 38:276-83, 2007.
41. Lusa L, McShane LM, Radmacher MD, **Shih JH**, Wright GW, Simon R. Appropriateness of some resampling-based inference procedures for assessing performance of prognostic classifiers derived from microarray data. *Statistics in Medicine* 26:1102-13, 2007.
42. Chatterjee N, Zeynep K, **Shih JH** and Gail M. Rejoinder to the letter to editor from C. Begg. *Biometrics* 63: 965-66, 2007.
43. Park ES, Lee JS, Woo HG, Zhan F, **Shih JH**, Shaughnessy JD, Mushinski JF. Heterologous Tissue Culture Expression Signature Predicts Human Breast Cancer Prognosis. *PLoS ONE* Jan 3;2:e145, 2007.
44. Deeb KK, Michalowska AM, Yoon CY, Krummey SM, Hoenerhoff MJ, Kavanaugh C, Li MC, Demayo FJ, Linnoila I, Deng CX, Lee E YH, Medina D, **Shih JH.**, Green, JE. An integrated cancer genetic network predicts aggressive human carcinomas with poor prognosis. *Cancer Research* 67:8065-80, 2007.
45. Shilo K, Dracheva T, Mani H, Fukuoka J, Sesterhenn I, Chu WS, **Shih JH**, Jen J, Travis W, Franks T. Alpha-methylacyl CoA Racemase (AMACR) in Pulmonary Adenocarcinoma, Squamous Cell Carcinoma and Neuroendocrine Tumors: Expression and Survival Analysis. *Archives of Pathology & Laboratory Medicine* 31:1555-60, 2007.
46. Tang B, Yoo N, Vu M, Mamura M, Nam J, Ooshima A, Desprez P, Anver M, **Shih JH**, Parks T, Wakefield LM. TGF- $\alpha$  can function as a tumor suppressor in breast cancer through effects on the cancer stem cell and committed progeny that are independent of its antiproliferative activity. *Cancer Research* 67:8643-52, 2007.
47. **Shih JH**, Lu SE. Analysis of failure time data with multi-level clustering, with application to the child vitamin A intervention trial in Nepal. *Biometrics* 63:673-80, 2007.
48. **Shih JH**. Sample size considerations for morbidity/mortality trials. *Wiley Encyclopedia of Clinical Trials* DOI: 10.1002/9780471462422, 2008.
49. Fenton JI, Lavigne LA, Perkins SN, Liu H, Chandramouli G, **Shih JH**, Hord NG, Hursting SD. Microarray analysis reveals that leptin induces autocrine/paracrine cascades to promote survival and proliferation of colon epithelial cells in an Apc genotype dependent fashion. *Molecular Carcinogenesis* 47: 9-21, 2008.
50. Landi MT, Dracheva T, Rotunno M, Figueroa JD, Liu H, Dasgupta A, Mann FE, Fukuoka J, Hames M, Bergen A, Murphy SE, Yang P, Pesatori AC, Consonni D, Bertazzi PA, Wacholder S, **Shih JH**, Caporaso N, Jen J. Gene expression signature of cigarette smoking and its role in lung adenocarcinoma risk and survival. *PLoS ONE* 3(2):e1651, 2008.



51. Bonome T, Levine DA, **Shih JH**, Randonovich M, Pise-Masison CA, Brady J, Barrett, JC Boyd J, Birrer MJ. Identification of a gene signature predicting for survival in sub-optimally debulked patients with high-grade papillary serous ovarian cancer. *Cancer Research* 68:5478-86, 2008.
52. Calvo KR, Dabir B, Kovach A, Devor C, Bandle R, Bond A, **Shih JH**, Jaffe ES. IL-4 protein expression and basal activation of Erk *in vivo* in follicular Lymphoma. *Blood* 112: 3818-26, 2008.
53. Orina JN, Calcagno AM, Wu CP, Varma S, **Shih JH**, Lin M, Eichler G, Weinstein JN, Pommier Y, Ambudkar SV, Gottesman MM and Gillet JP. Generation of an improved drug discovery repository using high-throughput Taqman low density arrays. *Mol Cancer Ther* 8:2057-66, 2009.
54. **Shih JH**, Lu SE. Semiparametric estimation of a nested random effects model for the analysis of multi-level clustered failure time data. *Journal of Computational Statistics and Data Analysis* 53:3864-71, 2009.
55. Albert PS, **Shih JH**. On estimating the relationship between longitudinal measurements and time-to-event data using a simple two-stage procedure. *Biometrics* 66, 983-87, 2010.
56. Albert PS, **Shih JH**. An approach for jointly modeling multivariate longitudinal measurements and time-to-event data. *The Annals of Applied Statistics* 4,1517-32, 2010.
57. **Shih JH**, Albert, PS. Modeling familial association of ages at onset of diseases in the presence of competing risk. *Biometrics* 66:1012-23, 2010.
58. Tauler J, Zudaire E, Liu H, **Shih J**, Mulshine JL. hnRNP A2/B1 modulates epithelial-mesenchymal transition in lung cancer cell lines. *Cancer Research* 70:7137-47, 2010.
59. Turkbey B, Shah VP, Pang X, Bernado M, Xu S, Kruecker J, Locklin J, Baccala AA, Rastinehad AR, Merino MJ, **Shih JH**, Wood BJ, Pinto PA, Choyke PL. Is apparent diffusion coefficient associated with clinical risk scores for prostate cancers that are visible on 3-T MR images? *Radiology* 258:488-95, 2010.
60. Rastinehad AR, Baccal AA, Chung PH, Proano JM, Kruecker J, Xu S, Lockin JK, Turkbey B, **Shih J**, Linehan WM, Glossop ND, Choyke PL, Wood BJ, Pinto PA. D'Amico Risk Stratification Correlates with Degree of Suspicion of Prostate Cancer on Multi-Parametric Magnetic Resonance Imaging (MRI). *Journal of Urology* 185:815-20, 2011.
61. Steffen-Smith EA, **Shih JH**, Warren KE. Proton magnetic resonance spectroscopy predicts survival in children with diffuse intrinsic pontine glioma. *Journal Neuro-Oncology* 105:365-73, 2011.
62. Hipp SJ, Steffen-Smith EA, Hammoud D, **Shih JH**, Bent R, Warren KE. Predicting outcome of children with diffuse intrinsic pontine gliomas using multiparametric imaging. *Neuro-Oncology* 13,904-9, 2011.

63. Kreisl TN, Zhang W, Odia Y, **Shih J**, Butman JA, Hammoud D, Iwamoto F, Su J, Fine HA. A Phase II Trial of Single Agent Bevacizumab in Patients with Recurrent Anaplastic Glioma. *Journal of Neuro-Oncology* 13:1143-50, 2011.
64. Turkbey B, Mani H, Shah VJ, Rastinehad AR, Bernardo M, Pohida T, Pang Y, Daar D, Benjamin C, McKinney YL, Trivedi H, Chua C, Bratslavsky G, **Shih JH**, Linehan WM, Merino MJ, Choyke PL, Pinto PA. Multiparametric 3T prostate MR imaging to detect cancer: histopathologic correlation using prostatectomy specimens processed in customized MRI-based molds. *Journal of Urology* 186:1818-24, 2011.
65. Zhang C, Elkahloun AG, Robertson M, Gills JJ, Tsurutani J, **Shih JH**, Fukuoka J, Hollander C, Harris CC, Travis WD, Jen J, Dennis PA. Loss of cytoplasmic CDK1 predicts poor survival in human lung cancer and confers chemotherapeutic resistance. *Plos One* 6(8):e23849, 2011.
66. Pinto PA, Chung PH, Rastinehad AR, Baccala AA, Kruecker J, Benjamin CJ, Xu X, Yan P, Kadoury S, Chua C, Locklin JK, Turkbey B, **Shih JH**, Gates SP, Buckner C, Bratslavsky G, Linehan WM, Glossop ND, Choyke PL, Wood BJ. Magnetic resonance imaging/ultrasound fusion guided prostate biopsy improves cancer detection following transrectal ultrasound biopsy and correlates with multiparametric magnetic resonance imaging. *Journal of Urology* 186:1281-85, 2011.
67. Rotunno M, Hu N, Su H, Wang C, Goldstein AM, Bergen AW, Consonni D, Pesatori AC, Bertazzi, PA, Wacholder S, **Shih JH**, Caporaso NE, Taylor PR, Landi MT. A gene expression signature from peripheral whole blood for stage I lung adenocarcinoma. *Cancer Prevention Research* 4:1599-608, 2011.
68. Fay MP, **Shih JH**. Weighted logrank tests for interval censored data when assessment times depend on treatment. *Statistics in Medicine* 31: 3760-62, 2012.
69. Shuch B, Bratslavsky G, **Shih J**, Vourganti S, Finley D, Castor B, Treat E, Linehan WM, Pantuck AJ, Said J, Belldegrun AS. Impact of pathologic tumor characteristics in patients with sarcomatoid renal cell carcinoma. *British Journal of Urology* 109:1600-16, 2012.
70. Chen J, Petrus M, Bamford R, **Shih JH**, Morris JC, Janik JE, Waldmann TA. Increased serum soluble interleukin-15 receptor alpha (sIL-15R $\alpha$ ) levels in T cell large granular lymphocyte leukemia. *Blood* 119:137-43, 2012.
71. Simone NL, Dan T, **Shih JH**, Smith SL, Sciuto L, Lita E, Swain SM, Danforth D, Camphausen K. Twenty-five year results in the treatment of early stage breast carcinoma with mastectomy versus breast conservation therapy: the National Cancer Institute randomized trial. *Breast Cancer Research and Treatment* 132:197-203, 2012.
72. Yan W, **Shih J**, Rodriguez-Canales J, Hipp J, Player A, Hu N, Goldstein AM, Taylor PR, Emmert-Buck MR, Erickson HS. Identification of unique therapeutic targets in esophageal squamous cell carcinoma. *BMC Research Notes* doi: 10.1186/1756-0500-5-73, 2012.

73. Warren KE, Bent R, Wolters PL, Prager A, Hanson R, Packer R, **Shih J**, Camphausen K. A phase II study of pegylated interferon Alfa-2b (PET-Intron®) in children with diffuse intrinsic protine glioma. *Cancer* 118:3607-13, 2012.
74. Kurdziel KA, **Shih JH**, Linderberg ML, Apolo AB, Mena E, McKinney Y, Turkbey IB, Dahut W, Gulley JL, Madan R, Landgren O, Choyke PL. The kinetics and reproducibility of 18F-sodium fluoride (NaF) using current PET camera technology. *J Nuclear Medicine* 53:1175-84, 2012.
75. Scott JG, Bauchet L, Fraum TJ, Nayak L, Cooper AR, Reiner AS, Chao ST, Suh JH, Vogelbaum,MA, Peerboom DV, Zouaoui SZ, Mathieu-Daude H, Fabbro-Peray P, Rigau V, Taillandier L, Abrey LE, DeAngelis LM, **Shih JH**, Iwamoto FM. Recursive partitioning analysis identifies prognostic groups for glioblastoma patients aged 70 years or older. *Cancer* 118:5596-600, 2012.
76. Ou W, Delisle J, Jacques J, **Shih J**, Price G, Kuhn JH, Wang V, Verthelyi D, Kaplan G, Wilson CA. Induction of ebolavirus cross-species immunity using retrovirus-like particles bearing the Ebola virus glycoprotein lacking the mucin-like domain. *Virology Journal* 9:32 doi:10.1186/1743-422X-9-3, 2012.
77. Yan W, **Shih JH**, Rodriguez-Canales J, Tangera MA, Diao L, Hu N, Goldstein AM, Wang J, Taylor PR,,Lippman SM, Wistuba II, Emmert-Buck MR, Erickson HS. Three-dimensional mRNA measurements reveal minimal heterogeneity in esophageal squamous cell carcinoma. *American Journal of Pathology* 182:529-39, 2013.
78. Milenic D, Kwamena B, Wong K, **Shih J**, Brechbiel M. Evaluation of platinum chemotherapy in combination with HER2 targeted  $\alpha$ -particle radiation. *Cancer Biotheo Radiopharm* 28:441-9, 2013.
79. Kreisl TN, McNeill KA, Sul J, Iwamoto FM, **Shih J**, Fine HA. A phase I/II trial of vandetanib for patients with recurrent malignant glioma. *Neuro Oncology* 14:1519-26, 2013.
80. Kreisl TN, Smith, P, Sul J, Salgado C, Iwamoto FM, **Shih JH**, Fine HA. Continuous daily sunitinib for recurrent glioblastoma. *Journal of Neurooncology* 11:41-8, 2013.
81. Chen J, Pise-Masison CA, **Shih JH**, Morris JC, Janik JE, Conlon KC, Keating A, Waldmann TA. Markedly additive antitumor activity with the combination of a selective surviving suppressant YM155 and alemtuzumab in adult T-cell leukemia. *Blood* 121:2029-37, 2013.
82. Mena E, Lindenberg ML, Turkbey BI, **Shih J**, Logan J, Adler SS, Wong KJ, Wilson W, Choyke PL, Kurdziel KA. A pilot study of the value of <sup>18</sup>F-Fluoro-deoxy-thymidine PET/CT in predicting viable lymphoma in residual 18F-FDG avid masses following completion of therapy. *Clinical Nuclear Medicine* 39:874-81, 2013.
83. Albert PS, **Shih JH**. Modeling batched Gaussian longitudinal data subject to informative dropout. *Statistical Methods in Medical Research* 23: 203-17, 2014.

84. Odia Y, **Shih JH**, Kreisl TN. Bevacizumab-related toxicities in patients with malignant gliomas. *Journal of Neuro-oncology* 120:431-40, 2014.
85. Turkbey B, Mena E, **Shih J**, Pinto PA, Merino MJ, Lindenberg ML, Bernardo M, McKinney YL, Adler S, Owenius R, Choyke PL, Kurdziel KA. Localized Prostate Cancer Detection with 18F FACBC PET/CT: Comparison with MR Imaging and Histopathology. *Radiology* 270:849-56, 2014.
86. Mena E, Owenius R, Turkbey B, Sherry R, Bratslavsky G, Machol S, Miller MP, Somer EJ, Lindenberg L, Adler S, **Shih J**, Choyke P, Kurdziel K. [<sup>18</sup>F]fluciclatide in the in vivo evaluation of human melanoma and renal tumors expressing  $\alpha\beta 3$  and  $\alpha\beta 5$  integrins. *European Journal Nuclear Medicine and Molecular Imaging* 41: 1879-88, 2014.
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161. Tepede AA, Lee M, Welch J, Mandl A, **Shih JH**, Cochran C, Hamimi A, Weinstein LS, Simonds WF, Gharib AM, Millo C, Sadowski SM, Blau JE. The role of <sup>68</sup>Gallium dotatate PET/CT versus <sup>18</sup>F-FDOPA PET/CT in the detection of neuroendocrine tumors in patients with multiple endocrine neoplasia type 1 (MEN1). Submitted.
162. **Shih JH**, Albert PS, Fine J, Liu D. An imputation approach for a time-to-event analysis subject to missing outcomes due to non-coverage. Submitted.
163. Saoud R, Telfer S, Maruf M, Singer EA, Weiss RE, Jang TL, Elsamra SE, Marino M, Valera V, Railkar R, Dolan R, Bellfield S, Brancato Sm, Stamatakis L, **Shih J**, Donohue R, Heery C, Apolo AB, Gulley J, Schlom J, Agarwal PK. Clinical outcomes of a randomized prospective phase II study to determine the efficacy of bacillus Calmette-guerin (BCG) given in combination with PANVAC™ versus BCG given alone in adults with high grade BCG-refractory non-muscle invasive bladder cancer. Submitted.
164. Srinivasan R, Gurram S, Singer EA, Sidana A, Harthy MA, Ball MW, Friend JC, Purcell E, Vocke C, Kong HH, Cowen EW, Malayeri AA, Long L, **Shih JH**, Merino MJ, Linehan WM. Phase II study of bevacizumab and erlotinib in fumarate hydratase-deficient kidney cancer. Submitted.
165. Patel KR, Rowe L, Schott E, Cooley-Zgela T, Ning H, Turkbey B, Choyke P, Lindenberg L, Pinto P, Zhang Q, Shih JH, Salemo K, Citrin DE. A phase I trial of highly conformal, hypofractionated post-prostatectomy radiotherapy. Submitted.
166. Liu D, Wu E, **Shih J**, Kitahara C, Cheung Li. Absolute and relative risk estimation in the presence of outcome ascertainment gaps and competing risks. Under revision.

#### **BOOK CHAPTERS:**

1. Stamler J, Neaton J, Wentworth D, **Shih J**, Dyer A, Shekelle R, Stamler R. Life styles and life style-related major risk factors: their combined impact in producing epidemic cardiovascular disease, and the potential for prevention. *Multiple Risk Factors in Cardiovascular Disease* edited by Chobanian A, Gotto A, Lenfant C, Paoletti R, Zanchetti A, 1991.
2. **Shih JH**. An Introduction to survival analysis. *Principles and practice of clinical research*, Gallin, J.I. (editor), 259-66, 2002.

3. **Shih JH** and Fay MP. A class of permutation tests for some two-sample survival data problems. *Contemporary biostatistical issues in clinical trials*, Geller, N. (editor), 141160, 2003.
4. Johnson L and **Shih JH**. An Introduction to survival analysis. *Principles and practice of clinical research 2<sup>nd</sup> edition*, Gallin, J.I. (editor): 259-66, 2007.
5. **Shih JH**. Copula models and analysis for multivariate failure time data. In Klein, J, Ibrahim, J, Scheike, T, Houwelingen, HV, editors, *Handbook of Survival Analysis*, pp. 489-510, 2013.

#### INVITED PRESENTATIONS:

- National Cancer Institute planning meeting on Smoking and Tobacco Control Program monograph, January 1991
- “Sample size calculation for complex clinical trials”. University of Minnesota, 1992
- “Models and analysis for multivariate failure time data”. National Heart, Lung, and Blood Institute, July 1992
- “Models and analysis for multivariate failure time data”. National Cancer Institute, March 1992
- “Models and analysis for multivariate failure time data”. Department of Biostatistics, University of Washington, February 1992
- “Models and analysis for multivariate failure time data”. Division of Biostatistics, University of Rochester, New York, January 1992
- “Models and analysis of multivariate failure time data”. Henry Ford Hospital, Michigan, February 1992
- “Models and analysis for multivariate failure time data”. Department of Biostatistics, University of Michigan, February 1992
- “Models and analysis for multivariate failure time data”. Department of Biostatistics, University of North Carolina, January 1992
- “Models and analysis for multivariate failure time data”. Pennsylvania State University, Medical School, February 1992
- “Models and analysis for multivariate failure time data”. Wake Forest University, Bowman Gray school of Medicine, February 1992

- “Models and analysis for multivariate failure time data”. University of Pennsylvania, Medical school, March 1992
- “Tests of independence of bivariate failure time data”, National Heart, Lung, and Blood Institute, December 1992
- “A goodness-of-fit test for association in a bivariate survival model”. International Chinese Statistical Association Symposium, June 1996
- “Modeling multivariate discrete failure time data”. National Cancer Institute, April 1998
- “Modeling multivariate discrete failure time data”. Department of Biostatistics, Johns Hopkins University, November 1998.
- “A class of permutation tests for stratified survival data”. International Chinese Statistical Association (ICSA) annual meeting, Washington, D.C., June 1999
- “Latent models for correlated binary data with diagnostic error”. Joint Statistical Meetings, Baltimore, MD, August 1999
- “A cure model for bivariate failure time data”. Department of Biostatistics, Columbia University, New York, January 2000
- “Sample size calculation for complex clinical trials with survival endpoints”. Pfizer Cooperation, Connecticut, November 2001
- “Design and Analysis issues in the microarray studies of animal models”. Mouse Models of Mammary Cancers Retreat, Gaithersberg, MD, 2003
- “Design, analysis and interpretation of microarray gene expression data (II)”. National Institute of Child Health and Development, 2003
- “Design, analysis and interpretation of microarray gene expression data (I)”. National Institute of Child Health and Development, 2003
- “A bivariate cure-mixture approach for modeling familial association in diseases”. Joint Statistical Meetings, San Francisco, August 2003.
- “Analysis of survival data from case-control family studies”. Johns Hopkins University, Department of Biostatistics, 2003
- “Estimating relative risk, cumulative risk and familial aggregation from case-control designs with genotype and family history data”. University of Medicine and Dentistry of New Jersey, Department of Biostatistics, 2004

- “Effects of pooling mRNA in microarray class comparisons”. Lombard Comprehensive Cancer Center, Georgetown University, 2005
- Effects of pooling mRNA in microarray class comparisons. International Chinese Statistical Association Annual Meeting, 2005
- “Analysis of failure time data with multi-level clustering, with application to the child intervention trial in Nepal”. ENAR, Tampa, Florida, March 2006
- “Analysis of failure time data with multi-level clustering, with application to the child intervention trial in Nepal”. Division of Biostatistics, Albert Einstein College of Medicine of Yeshiva University, Spring 2007.
- “Semiparametric approaches for the analysis of multi-level failure time data”. University of Maryland Cancer Center, Spring 2007.
- “Semiparametric approaches for the analysis of multi-level failure time data”. Joint Statistical Meetings, Salt Lake City, Utah, 2007.
- “Modelling familial association of ages of onset of disease in the presence of competing risk”. Joint Statistical Meetings, Colorado, 2008
- “Modelling familial association of ages of onset of disease in the presence of competing risk”. National Heart, Lung, and Blood Institute, 2008
- “Modelling familial association of ages of onset of disease in the presence of competing risk”. Department of Mathematics, Queen’s University, Canada, September 2009.
- “Modelling familial association of ages of onset of disease in the presence of competing risk”. Department of Biostatistics, Epidemiology and Informatics, University of Pennsylvania, October 2010
- “Modelling familial association of ages of onset of disease in the presence of competing risk”. National Institute of Child Health and Human Development, 2011
- “Modeling the type and timing of consecutive events: application to predicting preterm birth in repeated pregnancies”. National Institute of Child Health and Human Development, 2015
- “Modeling the type and timing of consecutive events: application to predicting preterm birth in repeated pregnancies”. Johns Hopkins University, 2015.
- “Pearson’s Chi-square Test and Rank Correlation Inferences for Clustered Data”. Johns Hopkins University, 2016.
- “Methods for measuring inter-observer agreement on prospective tumor detection”. Molecular Imaging Program, National Cancer Institute, 2016.

- “Prostate cancer risk prediction and evaluation”. Molecular Imaging Program, National Cancer Institute, 2016.
- “Pearson’s Chi-square Test and Rank Correlation Inferences for Clustered Data”. ICISA International conference, Shanghai, China, 2016.
- “The problems with the kappa statistic as a metric of inter-observer agreement in lesion detection using a third-reader approach when locations are not pre-specified”. Biometric Research Program, National Cancer Institute, 2018.
- “The problems with the kappa statistic as a metric of inter-observer agreement in lesion detection using a third-reader approach when locations are not pre-specified. Division of Imaging”. Diagnostics, and Software Reliability, FDA, 2018.
- “Analysis of error-prone self-reported time-to-event outcome with an internal validation sample identified from a mover-stayer model”. 2019 Conference on Lifetime Data Science, Pittsburgh, Pennsylvania, 2019.

#### **CONTRIBUTED PRESENTATIONS:**

- Models and analysis for multivariate failure time data, Eastern North American Region International Biometric Society (ENAR) Meeting, Houston, Texas, 1992.
- Tests of independence for bivariate failure time data, Eastern North American Region International Biometric Society (ENAR) Meeting, Cleveland, Ohio, 1994.
- Assessing gamma frailty models for clustered failure time data, Lifetime Data: Models in Reliability and Survival Analysis Symposium, Boston, Massachusetts., 1995.
- Modeling multivariate discrete failure time data, Eastern North American Region International Biometric Society (ENAR) Meeting, Richmond, Virginia, 1996.
- A goodness-of-fit test for association in a bivariate survival model, Eastern North American Region International Biometric Society (ENAR) Meeting, Memphis, Tennessee, 1997.
- Latent models for correlated binary data with diagnostic error, Eastern North American Region International Biometric Society (ENAR) Meeting, Pittsburgh, Pennsylvania, 1998..
- A class of permutation tests for stratified failure time data, Eastern North American Region International Biometric Society (ENAR) Meeting, Atlanta, Georgia, 1999.
- Effects of pooling mRNA in microarray class comparisons, Joint Statistical Meetings, Toronto, Canada, 2004.



- Discussant, Byar Award Presentations. (Topic Contributed) Joint Statistical Meetings, San Diego, California, 2012.
- “Modeling the type and timing of consecutive events: application to predicting preterm birth in repeated pregnancies”. (Topic Contributed) Joint Statistical Meetings, Boston, Massachusetts, 2014
- “Pearson’s Chi-square Test and Rank Correlation Inferences for Clustered Data”. (Topic Contributed) Joint Statistical Meetings, Baltimore, Maryland, 2017.