

Ronghui (Lily) Xu

EDUCATION

1996	Mathematics	Ph.D.	University of California, San Diego
1995	Applied Mathematics	M.A.	University of California, San Diego
1990	Mathematics	B.S.	Nankai University, China

ACADEMIC APPOINTMENTS

2010-present	Professor, Herbert Wertheim School of Public Health, Department of Mathematics and Halicioglu Data Science Institute; Faculty, UCSD Bioinformatics and Systems Biology Ph.D. Program, University of California, San Diego, CA.
2004-2010	Associate Professor, Department of Family and Preventive Medicine and Department of Mathematics, University of California, San Diego, CA.
1997-2004	Assistant Professor, Department of Biostatistics, Harvard School of Public Health, and Department of Biostatistical Science, Dana-Farber Cancer Institute, Boston, MA.
1996-1997	Postgraduate Researcher, Cancer Center and Department of Mathematics, University of California, San Diego.
1996	Research Assistant, Department of Mathematics, University of California, San Diego.
1995	Summer Assistantship, INSERM U 436, Universit de Paris, France.
1993-1996	Teaching Assistant, University of California, San Diego.

HONORS AND DISTINCTIONS

1998	David P. Byar Young Investigator Award, American Statistical Association
2001, 2003	Excellence in Teaching, Harvard School of Public Health
2003	Keynote Speaker, International Conference on Methodology and Statistics
2013	Fellow, American Statistical Association

PROFESSIONAL SOCIETIES

American Statistical Association	Institute of Mathematical Statistics
International Biometric Society	International Chinese Statistical Association

EDITORIAL BOARDS

Lifetime Data Analysis
The American Statistician (past)
Statistical Modelling: an International Journal (past)
Biometrical Journal (past)

COLLABORATIVE RESEARCH EXPERIENCE

UCSD Clinical and Translational Research Institute: 2009 - 2021

Founding director of Biostatistics, Epidemiology, and Research Design (BERD) 2009 - 2015

UCSD General Clinical Research Center: 2006 - 2009

Director of Biostatistics

The work at GCRC/CTRI involves statistical collaboration on various projects with biomedical investigators, including the planning, conduct, analysis, and reporting of clinical trials, epidemiologic and population based studies, experiments in -omics type fields using high-throughput technology as well as imaging. It includes consultation on clinical protocols, and education for investigators in the areas of study design, data collection, computerization, and statistical methods. We are handling on the order of about 100 projects each year.

San Diego Organization of Teratology Information Services (OTIS) Research Center (within the UCSD Department of Pediatrics): 2006 - present

Director of Biostatistics: multiple contracts with pharmaceutical industry to satisfy the US FDA postmarketing requirement upon approval of Investigational New Drug (IND) applications, in particular drug safety surveillance for use during pregnancy.

Moore's UCSD Cancer Center: 2004 - 2006

Director of Biostatistics Share Resource

Eastern Cooperative Oncology Group, Boston, MA: 1997 - 2004

Head Statistician, Thoracic Committee 2002 - 2004

Communicate with Thoracic Committee chair; Coordinate all thoracic studies among statisticians; Teach training sessions for new statisticians; Serve as statistician (see below for responsibilities of a statistician) for over a dozen thoracic clinical and laboratory studies; Analyze database for outcomes of lung cancer patients.

Statistician, Gastrointestinal Committee 1997 - 2004

Collaborate with clinical investigators on over 20 clinical trials; Create statistical design, review data collection forms, generate interim reports, present interim analyses in front of Data Monitoring Committees, analyze final data, write technical reports and collaborate in manuscript writing; Attend twice-a-year group meetings.

Statistician, Leukemia Committee 2003 - 2004

Dana-Farber-Harvard Cancer Center, Boston, MA: 1997 - 2004

Collaborate in adult and pediatric brain cancer, lung cancer, quality of life, complementary therapies, nursing studies, microarray and proteomic experiments; Supervise master level statisticians; Review protocols for Scientific Review Committee and Institutional Review Board; Supervise doctoral students on cancer training grants for projects.

TEACHING

MATH 181AB	Introduction to Mathematical Statistics
MATH 185	Introduction to Computational Statistics
MATH 189	Exploratory Data Analysis and Inference
MATH 281AC	Mathematical Statistics
MATH 284	Survival Analysis

SELECTED PUBLICATIONSMethodological Research:

1. Quigley J, Xu R, Blin P, Charpak Y. Interphase clinical trials: phase III/phase IV. *Biometrical Journal*. 1999; **41**:773-782.
2. Xu R, O'Quigley J. A R² type measure of dependence for proportional hazards models. *Nonparametric Statistics*. 1999; **12**: 83-107.
3. Xu R, O'Quigley J. Proportional hazards estimate of the conditional survival function. *Journal of the Royal Statistical Society, Series B*. 2000; **62**:667-680.
4. Xu R, O'Quigley J. Estimating average regression effect under non-proportional hazards. *Biostatistics*. 2000; **1**:423-439.
5. Vaida F, Xu R. Proportional hazards model with random effects. *Statistics in Medicine*. 2000; **19**:3309-3324.
6. O'Quigley J and Xu R. Inference for the Cox model under proportional and non-proportional hazards. *Metodoloski Zvezki (New Approaches in Applied Statistics)*. 2000; **16**: 3-19.
7. Xu R, Harrington D.P. A semiparametric estimate of treatment effects with censored data. *Biometrics*. 2001; **57**: 875-885.
8. Xu R, Adak S. Survival analysis with time-varying relative risks: a tree-based approach. *Methods of Information in Medicine*. 2001; **40**:141-147.
9. Xu R, Adak S. Survival analysis with time-varying regression effects using a tree-based approach. *Biometrics*. 2002; **58**: 305-315.
10. Xu R, Li X. Comparison of parametric versus permutation methods with applications to microarray gene expression data. *Bioinformatics*. 2003; **19**(10): 1284-1289.
11. Xu R. Measuring explained variation in linear mixed effects models. *Statistics in Medicine*. 2003; **22**(22): 3527-3541.
12. Xu R. Proportional hazards model with mixed effects: a review with applications to twin models. *Journal of Statistical Society of Slovenia*. 2004; **1**(1): 205-212.

13. O'Quigley J, Xu R and Stare J. Explained randomness in proportional hazards models. *Statistics in Medicine*. 2005; **24**: 479-489.
14. Xu R, Gamst A. Re: lessons from controversy: ovarian cancer screening and serum proteomics. *Journal of the National Cancer Institute*. 2005; **97**(16): 1226-1227.
15. Liu I, Xu R, Blacker DL, Fitzmaurice G, Lyons MJ, Tsuang MT. The application of a proportional hazards model with random effects to twin data. *Behavior Genetics*. 2005; **35**(6):781-789.
16. Li X, Xu R. Empirical and kernel estimation of covariate distribution conditional on survival time. *Computational Statistics and Data Analysis*. 2006; **50**(12): 3629-3643.
17. Xu R, Gamst A. On proportional hazards assumption under the random effects models. *Lifetime Data Analysis*. 2007; **13**: 317-332.
18. Kauermann G, Xu R, Vaida F. Stacked Laplace-EM algorithm for duration models with time-varying and random effects. *Computational Statistics and Data Analysis*. 2008; **52**: 2514-2528.
19. Deutsch R, Mindt MR, Xu R, Cherner M, Grant I, and the HNRC Group. Quantifying relative superiority among many binary-valued diagnostic tests in the presence of a gold standard. *Journal of Data Science*, 2009; **7**(2): 161-177.
20. Xu R, Vaida F, Harrington DP. Using profile likelihood for model selection with applications to proportional hazards mixed model. *Statistica Sinica*, 2009; **19**(2): 819-842.
21. Gamst A, Donohue M, Xu R. Asymptotic properties and empirical evaluation of the *NPMLE* in the proportional hazards mixed-effects model. *Statistica Sinica*, 2009; **19**(3): 997-1011.
22. Lu X, Gamst A, Xu R. RDCurve: A nonparametric method to evaluate the stability of ranking procedures. *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, 2010; **7**(4): 719-726. (First published online 19 Dec. 2008. IEEE computer Society Digital Library. IEEE Computer Society, <http://doi.ieeecomputersociety.org/10.1109/TCBB.2008.138>)
23. Donohue MC, Haut R, Xu R, Vaida F. Conditional Akaike information under generalized linear and proportional hazards mixed models. *Biometrika*, 2011; **98**(3): 685-700.
24. Donohue MC, Gamst AC, Thomas RG, Xu R, Beckett L, Petersen RC, Weiner MW, Aisen P. The relative efficiency of time-to-threshold and rate of change in longitudinal data. *Contemporary Clinical Trials*, 2011; **32**(5): 685-693.
25. Xu R, Chambers C. A sample size calculation for spontaneous abortion in observational studies. *Reproductive Toxicology*, 2011; **32**: 490-493.
26. Xu R, Luo Y, Chambers, CD. Assessing the effect of vaccine on spontaneous abortion using time-dependent covariates Cox models. *Pharmacoepidemiology and Drug Safety*, 2012; **21**(8): 844-50; doi: 10.1002/pds.3301.

27. Strandberg E, Lin X, Xu R. Estimation of main effect when covariates have non-proportional hazards. *Communications in Statistics - Simulation and Computation*, 2014, **43**(7): 1760-1770; doi: 10.1080/03610918.2012.744043.
28. Lee KE, Kim Y, Xu R. Bayesian variable selection under the proportional hazards mixed-effects model. *Computational Statistics and Data Analysis*, 2014, **75**: 53-65.
29. Xu R, Luo Y, Glynn R, Johnson D, Jones K, Chambers C. Time-dependent propensity score for assessing the effect of vaccine exposure on pregnancy outcomes through pregnancy registries. *International Journal of Environmental Research and Public Health* (special issue: Vaccine Safety and Public Health), 2014, **11**(3): 3074-3085; doi: 10.3390/ijerph110303074.
30. Overholser R, Xu R. Effective degrees of freedom and its application to conditional AIC for linear mixed-effects models with correlated error structures. *Journal of Multivariate Analysis*, 2014, **132**: 160-170.
31. Overholser R, Xu R. Group analysis of fMRI data using L1 and L2 regularization. *Statistics and Its Interface*, 2015, **8**: 379-390.
32. Honerkamp-Smith G, Xu R. Three measures of explained variation for correlated survival data under the proportional hazards mixed-effects model. *Statistics in Medicine*, 2016, **35**(23): 4153-65.
33. Piao J, Ning J, Chambers C, Xu R. Semiparametric model and inference for spontaneous abortion data with a cured proportion and biased sampling. *Biostatistics*, 2018, **19**(1): 54-70.
34. Proudfoot J, Faig W, Natarajan L, Xu R. A Joint Marginal-Conditional Model for Multivariate Longitudinal Data. *Statistics in Medicine*, 2018, **37**(5): 813-828.
35. Chan PH, Xu R, Chambers CD. A Study of R-squared measure under the accelerated failure time models. *Communications in Statistics - Simulation and Computation*, 2018, **47**(2): 380-391.
36. Hou J, Chambers C, Xu R. A nonparametric maximum likelihood approach for survival data with observed cured subjects, left truncation and right-censoring. *Lifetime Data Analysis*, 2018, **24**(4): 612-651.
37. Xu R, Hou J, Chambers C. The impact of confounder selection in propensity scores when applied to prospective cohort studies in pregnancy. *Reproductive Toxicology*, 2018, **78**: 75-80.
38. Hou J, Paravati A, Hou J, Xu R, Murphy J. High-dimensional variable selection and prediction under competing risks with application to SEER-Medicare linked data. *Statistics in Medicine*, 2018, **37**(24): 3486-3502.
39. Wu Y, Chambers C, Xu R. Semiparametric sieve maximum likelihood estimation under cure model with partly interval censored and left truncated data for application to spontaneous abortion. *Lifetime Data Analysis*, 2019; **25**(3):507-528. doi: 10.1007/s10985-018-9445-4.

40. Ying A, Xu R, Murphy J. Two-Stage Residual Inclusion for Survival Data and Competing Risks - An Instrumental Variable Approach with Application to SEER-Medicare Linked Data. *Statistics in Medicine*, 2019, **38**(10): 1775-1801.
41. Xu R, Honerkamp-Smith G, Chambers C. Statistical sensitivity analysis for the estimation of fetal alcohol spectrum disorders prevalence. *Reproductive Toxicology*, 2019; **86**:62-67. doi: 10.1016/j.reprotox.2019.04.002.
42. Hou J, Bradic J, Xu R. Inference under Fine-Gray Competing Risks Model with High-Dimensional Covariates. *Electronic Journal of Statistics*, 2019; **13**(2):4449-4507.
43. Huang R, Xu R, Dulai PS. Sensitivity analysis of treatment effect to unmeasured confounding in observational studies with survival and competing risks outcomes. *Statistics in Medicine*, 2020; **39**(24):3397-3411.
44. Rava D, Xu R. Explained variation under the additive hazards model. *Statistics in Medicine*, 2021; **40**(1):85-100.
45. Hou J, Bradic J, Xu R. Treatment effect estimation under additive hazards models with high-dimensional confounding. *Journal of the American Statistical Association*, <https://doi.org/10.1080/01621459.2021.1930546>.
46. Xu R, Chen G, Conner M, Murphy J. Novel use of patient-specific covariates from oncology studies in the era of biomedical data science: a review of latest methodologies. *Journal of Clinical Oncology*, <https://ascopubs.org/doi/abs/10.1200/JCO.21.01957>.
47. Peng Y, Wang Y, Xu R. Explained variation under the mixture cure model for survival data. *Statistics in Medicine*, accepted.

Collaborative Research:

1. Parsons SK, Mayer DK, Alexander SW, Xu R, Land V and Laver J. Growth factor practice patterns among pediatric oncologists: results of a 1998 Pediatric Oncology Group GF survey. *J Ped Hem/Oncol*. 2000; **22**:227-241.
2. Hodgson D, Goumnerova LC, Loeffler JS, Dutton S, Black PM, Alexander E, Xu R, Kooy H, Silver B and Tarbell NJ. Radiosurgery in the management of pediatric brain tumors. *Int. J Radiation Oncology Biol. Phys.* 2001; **50**(4):929-935.
3. Astier A, Xu R, Svoboda M, Hinds E, Munoz O, De Beaumont R, Crean CD, Gabig T and Freedman AS. Temporal gene expression profile of human precursor B leukemia cells induced by adhesion receptor: identification of pathway regulating B-cell survival. *Blood*. 2003; **101**: 1118-1127.
4. Coyne C, Xu R, Raich P, Plomer K, Dignan M, Wenzel L, Fairclough D, Marcus A, Habermann T, Schnell L, Quella S and Cella D. A randomized controlled trial of an easy-to-read informed consent statement for clinical trial participation. *Journal of Clinical Oncology*. 2003; **21**:836-842.
5. Armanios M, Xu R, Forastiere AA, Haller DG, Kugler JW, Benson AB. Adjuvant chemotherapy for resected adenocarcinoma of the esophagus, gastro-esophageal

- junction and cardia (E8296): a phase II trial of the Eastern Cooperative Oncology Group. *Journal of Clinical Oncology*. 2004; **22**(22): 4495-4499.
6. Liu I, Blacker DL, Xu R, Fitzmaurice G, Tsuang MT, Lyons MJ. Genetic and environmental contributions to the development of alcohol dependence in male twins. *Archives of General Psychiatry*. 2004; **61**: 897-903.
 7. Liu I, Blacker DL, Xu R, Fitzmaurice G, Tsuang MT, Lyons MJ. Genetic and environmental contributions to the age of onset of alcohol dependence symptoms in male twins. *Addiction*. 2004; **99**: 1403-1409.
 8. Hoang T, Xu R, Schiller J, Bonomi P, Johnson D. A clinical model to predict survival in chemo-naïve patients with advanced non-small cell lung cancer treated with standard chemotherapy: Eastern Cooperative Oncology Group data. *Journal of Clinical Oncology*. 2005; **23**(1): 175-183.
 9. Shah GD, Kesari S, Xu R, Batchelor TT, O'Neil AM, Hochberg FH, Levy B, Bradshaw J, Wen PY. Comparison of linear and volumetric criteria in assessing tumor response in adult high grade gliomas. *Neuro-Oncology*. 2006; **8**(1): 38-46.
 10. Hastings RH, Laux AM, Casillas A, Xu R, Ernstrom K, Lukas Z, Deftos LJ. Sex-specific survival advantage with PTHrP in non-small cell lung carcinoma patients. *Clinical Cancer Research*. 2006; **12**: 499-506.
 11. Chen J, Xu R, Hunt GC, Krinsky ML, Savides TJ. Influence of the number of malignant regional lymph nodes detected by endoscopic ultrasonography on survival stratification in esophageal adenocarcinoma. *Clinical Gastroenterology and Hepatology*. 2006; **4**(5): 573-579.
 12. Huang JS, Becerra K, Oda T, Walker E, Xu R, Donohue M, Chen I, Curbelo V, Breslow A. Parental ability to discriminate the weight status of children: results of a survey. *Pediatrics*. 2007; **120**: e112-e119.
 13. Bashey A, Donohue M, Liu L, Medina B, Corringham S, Ihasz A, Carrier E, Castro JE, Holman PR, Xu R, Law P, Ball ED, Lane TA. Peripheral blood progenitor cell mobilization using intermediate-dose cyclophosphamide, sequential GM-CSF and G-CSF and scheduled commencement of leukapheresis in 225 patients undergoing autologous transplantation. *Transfusion*, 2007; **47**: 2153-2160.
 14. Rose SC, Iussich G, Casola G, Kuo MD, Valji K, He F, Xu R, Alpert ME, Hasanein TI. Comparison of CT angiography and digital subtraction angiography for displaying extrahepatic arterial anatomy relevant to planning regional arterial therapy for liver cancers. *Journal of Interventional Oncology*, 2008; **1**(1): 19-27.
 15. Dunn W, Xu R, Schwimmer J. Modest wine drinking and decreased prevalence of suspected nonalcoholic fatty liver disease. *Hepatology*, 2008; **47**: 1947-54.
 16. Dunn W, Xu R, Wingard DL, Rogers C, Angulo P, Younossi ZM, Schwimmer JB. Suspected nonalcoholic fatty liver disease and mortality risk in a population-based cohort study. *American Journal of Gastroenterology*, 2008; **103**: 2263-71.
 17. Huang J, Donohue M, Becerra K, Xu R. The relationship between parents and children's weight perceptions: Results of a survey. *Infant, Child and Adolescent Nutrition*, 2009; **1**(1): 15-20.

18. Wetherell JL, Ayers CR, Sorrell JT, Thorp SR, Nuevo R, Stanley MA, Stein MB, Arian PA, Donohue M, UnÄEtzer J, Ramsdell J, Xu R, Patterson TL. Modular treatment for anxiety in older primary care patients. *American Journal of Geriatric Psychiatry*, 2009; **17**(6): 483-492.
19. Leung A, Duann J, McGreevy K, Li E, Xu R, Donohue M, et al. The supraspinal pain pathway of the thermal grill illusion. *NeuroImage*, 2009; **47**(Supplement 1): S61-S61.
20. Leung AY, Donohue M, Xu R, Lee R, Lefaucheur J, Khedr E, Saitoh Y, Andre-Obadia N, Rollnik J, Wallace M, Chen R. rTMS in suppressing neuropathic pain: a meta-analysis. *The Journal of Pain*, 2009; **10**(12): 1205-1216.
21. Chambers CD, Johnson DL, Robinson LK, Braddock SR, Xu R, Jimenez J, Mirrasoul N, Salas E, Luo YJ, Jin S, Jones KL. Birth Outcomes in pregnant women taking Leflunomide. *Arthritis and Rheumatism*, 2010; **62**(5): 1494-1503.
22. Rubio DM, Junco DJ, Bhore R, Lindsell CJ, Oster RA, Wittkowski KM, Welty LJ, Li Y, DeMets D and the Biostatistics, Epidemiology, and Research Design (BERD) Key Function Committee of the Clinical and Translational Science Awards (CTSA) Consortium. Evaluation metrics for biostatistical and epidemiological collaborations. *Statistics in Medicine*, 2010; **30**: 2767-2777.
23. Delrahim-Howlett K, Chambers CD, Clapp JD, Xu R, Duke K, Moyer III RJ, van Sickle D. Web-based assessment and brief intervention for alcohol use in women of childbearing potential: a report of the primary findings. *Alcoholism: Clinical and Experimental Research*, 2011; **35**(7): 1331-1338.
24. Sharma K, Ix JH, Mathew AV, Cho M, Pflueger A, Dunn SR, Francos B, Sharma S, Falkner B, McGowan TA, Donohue M, RamachandraRao S, Xu R, Fervenza FC, Kopp JB. Pirfenidone for diabetic nephropathy: a randomized placebo controlled clinical study. *Journal of the American Society of Nephrology*, 2011; **22**: published online before print; doi:10.1681/ASN.2010101049.
25. Rossman JF, Falkson CI, Xu R, Slabber CF, Mason BA, Mulcahy MF, Benson AB. Phase II trial of docetaxel and carboplatin in patients with advanced squamous carcinoma of the esophagus (E2298): a trial of the Eastern Cooperative Oncology Group. *Gastrointestinal Cancer Research*, 2011; **4**(1): 9-14.
26. Cassini M, Johnson DL, Robinson LK, Braddock SR, Xu R, Lopez-Jimenez J, Mirrasoul N, Salas E, Luo YJ, Jones KL, Chambers CD and the Organization of Teratology Information Specialists Collaborative Research Group. Pregnancy outcome in women exposed to leflunomide before or during pregnancy. *Arthritis and Rheumatism*, 2012; **64**(7): 2085-2094; doi: 10.1002/art.34419.
27. Lessig S, Nie D, Xu R, Corey-Bloom J. Changes on brief cognitive instruments over time in Parkinson's disease. *Movement Disorders*, 2012; **27**(9): 1125-1128; doi: 10.1002/mds.25070.
28. Chambers CD, Johnson D, Xu R, Luo Y, Louik C, Mitchell AA, Schatz M, Jones KL, the OTIS Collaborative Research Group. Risks and safety of pandemic h1n1

- influenza vaccine in pregnancy: Birth defects, spontaneous abortion, preterm delivery, and small forgestational age infants. *Vaccine*, 2013; **31**: 5026-5032.
29. Chambers C, Yevtushok L, Zymak-Zakutnya N, Korzhynskyy Y, Ostapchuk L, Akhmedzhanova D, Chan P, Xu R, Wertelecki W. Prevalence and predictors of maternal alcohol consumption in two regions of Ukraine. *Alcoholism: Clinical and Experimental Research*, 2014, **38**(4): 1012-1019; doi: 10.1111/acer.12318.
 30. Grimes CL, Tan-Kim J, Nager CW, Dyer KY, Menefee SA, Diwadkar GB, Overholser RH, Xu R, Lukacz ES. Outcome measure to assess anatomy and function of the posterior vaginal compartment. *International Urology Journal*, 2014, **25**(7): 893-899; doi: 10.1007/s00192-013-2303-8.
 31. Pramparo T, Pierce K, Lombardo MV, Barnes CC, Marinero S, Ahrens-Barbeau C, Murray SS, Lopez L, Xu R, Courchesne E. Prediction of autism by translation and immune/inflammation co-expressed genes predict autism in toddlers from pediatric community practices. *Journal of the American Medical Association Psychiatry*, 2015; **72**(4): 386-394.
 32. Gish RG, Wong RJ, Honerkamp-Smith G, Xu R, Osorio RW. United Network for Organ Sharing regional variation in appeal denial rates with non-standard Model for End-Stage Liver Disease/Pediatric End-Stage Liver Disease exceptions: support for a national review board. *Clinical Transplantation*, 2015; **29**(6): 513-522.
 33. Baqai S, Proudfoot J, Xu R, Kane S, Clark M, Gish R. Comparable efficacy with Entecavir monotherapy and Tenofovir + Entecavir combination in chronic Hepatitis B patients. *British Medical Journal Open Gastroenterology*, 2015; **2**(1): e000030. doi: 10.1136/bmjgast-2015-000030.
 34. Kwong WT, Lawson RD, Hunt G, Fehmi SM, Proudfoot JA, Xu R, Giap A, Tang RS, Gonzalez IG, Krinsky ML, Savides TJ. Rapid growth rates of suspected pancreatic cyst branch duct intraductal papillary mucinous neoplasms predict malignancy. *Digestive Diseases and Sciences*, 2015; **60**(9): 2800-2806.
 35. Solso S, Xu R, Proudfoot J, Hagler DJ, Campbell K, Venkatraman V, Barnes CC, Ahrens-Barbeau C, Pierce K, Dale A, Eyler L, Courchesne E. Diffusion Tensor Imaging provides evidence of possible axonal over-connectivity in frontal lobes in ASD toddlers. *Biological Psychiatry*, 2016; **79**(8): 676-684.
 36. Grimes CL, Overholser RH, Xu R, Tan-Kim J, Nager CW, Dyer KY, Menefee SA, Diwadkar GB, Lukacz ES. Measuring the impact of a posterior compartment procedure on symptoms of obstructed defecation and posterior vaginal compartment anatomy. *International Urology Journal*, 2016; **27**(12): 1817-1823.
 37. Chambers CD, Johnson D, Xu R, Luo Y, Louik C, Mitchell AA, Schatz M, Jones KL, and the OTIS Collaborative Research Group. Safety of the seasonal influenza vaccines in pregnancy during the 2010-2014 seasons in the cohort arm of the Vaccines and Medications in Pregnancy Surveillance System (VAMPPS). *Vaccine*, 2016; **34**: 4443-4449.

38. Pandey AK, Penny WF, Hargava BV, Lai NC, Xu R, Hammond HK. Clinical Evaluation of Heart Failure: Agreement Among Tests. *PLoS ONE*, 2016; **11**(8): e0161536.
39. Xu R, Li M, Johnson D, Luo Y, Chambers CD. Consistency of maternal telephone administration of the Astham Control Test using postpartum recall compared to repeated measures during pregnancy. *Journal of Asthma*, 2017; **54**(4): 430-438.
40. Mell LK, Sirak I, Wei L, Tarnawski R, Mahantshetty U, Yashar CM, McHale MT, Xu R, Honerkamp-Smith G, Carmona R, Wright M, Williamson CW, Kasaov L, Li N, Kry S, Michalski J, Bosch W, Straube W, Schwarz J, Lowenstein J, Jiang SB, Saenz CC, Plaxe S, Einck J, Khorprasert C, Koonings P, Harrison T, Shi M, Mundt AJ. Bone Marrow-sparing Intensity Modulated Radiation Therapy With Concurrent Cisplatin For Stage IB-IVA Cervical Cancer: An International Multicenter Phase II Clinical Trial (INTERTECC-2). *Int J Radiat Oncol Biol Phys*. 2017; **97**(3): 536-545.
41. May PA, Chambers CD, Kalberg WO, Zellner J, Feldman H, Buckley D, Kopald D, Hasken JM, Xu R, Honerkamp-Smith G, Taras H, Manning MA, Robinson LK, Adam MP, Abdul-Rahman O, Vaux K, Jewett T, Elliott AJ, Kable JA, Akshoomoff N, Falk D, Arroyo JA, Hereld D, Riley EP, Charness ME, Coles CD, Warren KR, Jones KL, Hoyme HE. Prevalence of fetal alcohol spectrum disorders in 4 US communities. *Journal of the American Medical Association*, 2018; **319**(5): 474-482.
42. Palmsten K, Hulugalle A, Bandoli G, Kuo GM, Ansaria S, Xu R, Chambers CD. Agreement between maternal report and medical records during pregnancy: medications for rheumatoid arthritis and asthma. *Paediatric and Perinatal Epidemiology*, 2018; **32**(1):68-77. doi: 10.1111/ppe.12415.
43. Palmsten K, Rolland M, Hebert MF, Clowse ME, Schatz M, Xu R, Chambers CD. Patterns of prednisone use during pregnancy: daily and cumulative dose. *Pharmacoepidemiol and Drug Safety*, 2018; **27**(4):430-438. doi: 10.1002/pds.4410.
44. Singh S, Proudfoot J, Xu R, Sandborn W. Obesity and Response to Infliximab in Patients with Inflammatory Bowel Diseases: Pooled Analysis of Individual Participant Data from Clinical Trials. *American Journal of Gastroenterology*, 2018; **113**(6):883-889. doi: 10.1038/s41395-018-0104-x.
45. Ajmera V, Park CC, Caussy C, Singh S, Hernandez C, Bettencourt R, Hooker J, Sy E, Behling C, Xu R, Middleton M, Valasek MA, Faulkner C, Rizo E, Richards L, Sirlin CB, Loomba R. Magnetic resonance imaging proton density fat fraction associates with progression of fibrosis in patients with nonalcoholic fatty liver disease. *Gastroenterology*, 2018; **155**(2):307-310.e2. doi: 10.1053/j.gastro.2018.04.014.
46. Singh S, Proudfoot J, Dulai PS, Jairath V, Fumery M, Xu R, Feagan BG, Sandborn W. No benefit of concomitant 5-Aminosalicylates in patients with ulcerative colitis escalated to biologic therapy: pooled analysis of individual participant data from clinical trials. *American Journal of Gastroenterology*, 2018; **113**(8):1197-1205. doi: 10.1038/s41395-018-0144-2.

47. Han J, Nguyen J, Kim Y, Geng B, Romanowski G, Alejandro L, Proudfoot J, Xu R, Leibel A. Effect of Inhaled Corticosteroid Use on Weight (BMI) in Pediatric Patients with Moderate-Severe Asthma. *Journal of Asthma*, 2019, **56**(3): 263-269.
48. Riviere P, Tokeshi C, Hou J, Nalawade V, Sarkar R, Paravati A, Schiaffino M, Rose B, Xu R, Murphy J. Claims-based approach to predict cause-specific survival in men with prostate cancer. *JCO Clinical Cancer Informatics*, 2019; **3**: 1-7; doi/10.1200/CCI.18.00111.
49. Reiss J, Upadhyayula P, You H, Xu R, Stellwagen L. Short-Term Outcomes Following Standardized Admission of Late Preterm Infants to Family Centered Care. *American Journal of Perinatology*, 2019; doi: 10.1055/s-0039-1694981.
50. Chambers CD, Johnson D, Xu R, Luo Y, Jones KL. Oseltamivir Use in Pregnancy: Risk of Birth Defects, Preterm Delivery, and Small for Gestational Age Infants. *Birth Defects Research*, **111**(19): 1487-1493.
51. Chambers C, Coles C, Kable J, Akshoomoff N, Xu R, Zellner JA, Honerkamp-Smith G, Manning MA, Adam MP, Jones KL. Fetal Alcohol Spectrum Disorders in a Pacific Southwest City: Maternal and Child Characteristics. *Alcoholism: Clinical & Experimental Research*, 2019; **43**(12): 2578-2590; DOI: 10.1111/acer.14213.
52. Chambers C, Johnson DL, Xu R, Luo Y, Lopez-Jimenez J, Adam MP, Braddock SR, Robinson LK, Vaux K, Jones KL. Birth outcomes in women who have taken adalimumab in pregnancy: a prospective cohort study. *PLOS ONE*, 2019; DOI:10.1371/journal.pone.0223603.
53. Singh S, Proudfoot J, Dulai PS, Xu R, Feagan BG, Sandborn W, Jairath V. Comparative efficacy and speed of onset of action of Infliximab vs Golimumab in ulcerative colitis. *Clinical Gastroenterology and Hepatology*, 2020; **18**(2): 424-431.e7. doi: 10.1016/j.cgh.2019.05.019.
54. Mell LK, Xu R, Yashar CM, McHale MT, Einck JP, Mayadev J, Lee E, Binder P, Rash D, Eskander R, Heide ES, Plaxe SC, Mundt AJ, Saenz CC. Phase I trial of concurrent Gemcitabine and Cisplatin with image-guided intensity modulated radiation therapy for locoregionally advanced cervical carcinoma. *International Journal of Radiation Oncology, Biology, Physics*, 2020; **107**(5): 964-973.
55. Bohm M, Xu R, Zhang Y, Varma S, Fischer M, Kadire S, Tran G, Rahal M, Aniwan S, Meserve J, Weiss A, Kochhar G, Koliiani-Pace JL, Campbell JP, Boland B, Singh S, Faleck D, Winters A, Chablaney S, Hirten R, Ungaro R, Shmidt E, Lasch K, Jairath V, Hudesman D, Chang S, Lukin D, Swaminath A, Sands BE, Colombel J, Kane S, Loftus EV, Shen B, Siegel CA, Sandborn WJ, Dulai PS. Comparative safety and effectiveness of vedolizumab to tumour necrosis factor antagonist therapy for Crohn's disease. *Alimentary Pharmacology & Therapeutics*, 2020; **52**(4): 669-681.
56. Tibbs M, Huynh-Le M, Reyes A, Macari AC, Karunamuni R, Tringale K, Burkeen J, Marshall D, Xu R, McDonald C, Hattangadi-Gluth J. Longitudinal Analysis of

- Depression and Anxiety Symptoms as Independent Predictors of Neurocognitive Function in Primary Brain Tumor Patients. *International Journal of Radiation Oncology Biology Physics*, 2020; **108**(5): 1229-1239.
57. Narayan HK, Xu R, Forsch N, Govil S, Iukuridze D, Lindenfeld L, Adler E, Hegde S, Tremoulet A, Ky B, Armenian S, Omens J, McCulloch AD. Atlas-based measures of left ventricular shape may improve characterization of adverse remodeling in anthracycline-exposed childhood cancer survivors: a cross-sectional imaging study. *Cardio-Oncology*, 2020; **6**: 13. <https://doi.org/10.1186/s40959-020-00069-5>.
 58. Kumar A, Guss ZD, Courtney PT, Nalawade V, Sheridan P, Sarkar RR, Banegas MP, Rose BS, Xu R, Murphy JD. Evaluation of the use of cancer registry data for comparative effectiveness research. *JAMA Network Open*, 2020; **3**(7):e2011985. doi:10.1001/jamanetworkopen.2020.11985.
 59. Ammirati E, Brambatti M, Braun OO, Shah P, Cipriani M, Bui QM, Veenis J, Lee E, Xu R, Hong KN, Van de Heyning CM, Perna E, Timmermans P, Cikes M, Brugts JJ, Veronese G, Minto J, Smith S, Gjesdal G, Gernhofer YK, Partida C, Potena L, Masetti M, Boschi S, Loforte A, Jakus N, Milicic D, Nilsson J, De Bock D, Sterken C, Van den Bossche K, Rega F, Tran H, Singh R, Montomoli J, Mondino M, Greenberg B, Russo CF, Pretorius V, Liviu K, Frigerio M, Adler ED. Outcome of Patients on Heart Transplant List Treated with a Continuous-Flow Left Ventricular Assist Device: Insights from the TRAns-Atlantic Registry on VAd and TrAnsplant (TRAViATA). *International Journal of Cardiology*, 2020; **324**:122-130.
 60. Lukin D, Faleck D, Xu R, Zhang Y, Weiss A, Aniwani S, Kadire S, Tran G, Rahal M, Winters A, Chablaney S, Koliiani-Pace JL, Meserve J, Campbell JP, Kochhar G, Bohm M, Varma S, Fischer M, Boland B, Singh S, Hirten R, Ungaro R, Lasch K, Schmidt E, Jairath V, Hudesman D, Chang S, Swaminath A, Shen B, Kane S, Loftus Jr. EV, Sands BE, Colombel J-F, Siegel CA, Sandborn WJ, Dulai PS. Comparative Safety and Effectiveness of Vedolizumab to Tumor Necrosis Factor Antagonist Therapy for Ulcerative Colitis. *Clinical Gastroenterology and Hepatology*, 2020; doi: <https://doi.org/10.1016/j.cgh.2020.10.003>.
 61. Courtney PT, Paravati AJ, Atwood TF, Nandita X. Raja NX, Zimmerman CT, Fanta PT, Lowy AM, Simpson DR, Xu R, Murphy JD. Phase I Trial of Stereotactic Body Radiotherapy Dose Escalation in Pancreatic Cancer. *International Journal of Radiation Oncology, Biology, Physics*, accepted.
 62. Salans M, Tibbs MD, Huynh-Le M, Yip AT, Tringale K, Karunamuni R, Xu R, Reyes A, Macari AC, Pan-Weisz T, McDonald CR, Hattangadi-Gluth JA. Quality of life is independently associated with neurocognitive function in brain tumor patients: Analysis of a prospective clinical trial. *International Journal of Radiation Oncology, Biology, Physics*, accepted.
 63. Williamson CW, Sirák I, Xu R, Portelance L, Wei L, Tarnawski R, Mahantshetty U, Heide ES, Yashar CM, McHale MT, Bosch W, Jessica Lowenstein, Saenz CC,

- Plaxe S, Eskander R, John Einck J, Mundt AJ, Mayadev J, Mell LK for the INTERTECC study group. Positron Emission Tomography-Guided Bone Marrow-Sparing Radiation Therapy for Locoregionally Advanced Cervix Cancer: Final Results from the XXX Phase II/III Trial. *International Journal of Radiation Oncology, Biology, Physics*, DOI:<https://doi.org/10.1016/j.ijrobp.2021.08.019>
64. Chambers C, Johnson D, Xu R, Luo J, Felix R, Fine M, Lessard C, Adam M, Braddock S, Robinson L, Burke L, Jones K. Birth outcomes in women who have taken hydroxychloroquine in pregnancy: a prospective cohort study. *Arthritis & Rheumatology*, <https://doi.org/10.1002/art.42015>.
 65. Wen TH, Cheng A, Andreason C, Zahiri J, Xiao Y, Xu R, Bao B, Courchesne E, Barnes CC, Arias SJ, Pierce K. Large scale validation of an early-age eye-tracking biomarker for autism spectrum disorder. *Scientific Reports*, to appear.
 66. Yip AT, Yu J, Huynh-Le M, Salans M, Unnikrishnan S, Qian A, Xu R, Kaner R, MacEwan I, Crawford JR, Hattangadi-Gluth JA. Post-treatment neuroendocrine outcomes among pediatric brain tumor patients: is there a difference between proton and photon therapy? *Clinical and Translational Radiation Oncology*, <https://doi.org/10.1016/j.ctro.2022.02.010>.
 67. Pohl CE, Harvey H, Foley J, Lee E, Xu R, O'Brien NF, Coufal NG. Peripheral IV administration of hypertonic saline: single-center retrospective PICU study. *Pediatric Critical Care Medicine*, DOI: 10.1097/PCC.0000000000002903.
 68. Shahidi B, Padwal J, Lee E, Xu R, Northway S, Taitano L, Wu T, Raiszadeh K. Factors impacting adherence to an exercise-based physical therapy program for individuals with low back pain. *PLOS ONE*, 2022, DOI: 10.1371/journal.pone.0276326

Books, Monographs, Reviews and Commentaries:

1. O'Quigley J, and Xu R. Goodness-of-fit in survival analysis. *Encyclopedia of Biostatistics* (Ed: Armitage and Colton). Chichester, England: Wiley, 1998 (Vol. 4): 1731-1745.
2. O'Quigley J and Xu R. Explained variation in proportional hazards regression. *Handbook of Statistics in Clinical Oncology* (Ed: Crowley). New York: Marcel Dekker, Inc. 2001: 397-410.
3. Vaida F, Meng XL, Xu R. Mixed effects models and the EM algorithm. *Applied Bayesian and Causal Inference with and without Missing Data* (Ed: Gelman and Meng). Wiley. 2004; 253-264.
4. Xu R, Donohue M. Proportional hazards mixed models and applications. *Computational Methods in Biomedical Research* (Ed: Khattree and Naik). Marcel Dekker/Francis & Taylor. 2007; 297-322.
5. Xu R, Gamst A. Risk estimation. *High Dimensional Data Analysis in Cancer Research* (Ed: Li and Xu). New York: Springer, 2008; 63-88.
6. Li X, Xu R (eds). *High Dimensional Data Analysis in Cancer Research*. New York: Springer, 2008.

7. O’Quigley J and Xu R. Explained variation in proportional hazards regression. In: Crowley J and Hoering A, ed. *Handbook of Statistics in Clinical Oncology (3rd edition)*. New York: CRC Press/Francis & Taylor Group. 2012: 487-503.
8. O’Quigley J and Xu R. Robustness of proportional hazards regression. In: *Handbook of Survival Analysis* (ed: Klein et al.). CRC Press / Taylor & Francis Group, 2014: 323-339.
9. Xu R. Book Review: Data Analysis with Competing Risks and Intermediate States, by R.B.Geskus. *Journal of the American Statistical Association*, 2016; **111**(515): 1366-7.
10. Chambers C, Xu R, Mitchell, AA. Commentary on: “Association of spontaneous abortion with receipt of inactivated influenza vaccine containing H1N1pdm09 in 2010-11 and 2011-12”. *Vaccine*, 2017; **35**(40): 5323-5324.
11. Hou J and Xu R. Empirical study on high-dimensional variable selection and prediction under competing risks. In: *New Frontiers of Biostatistics and Bioinformatics* (ed: Zhao and Chen). Springer, 2018: in press.

Technical reports, proceedings and arxiv:

1. Xu R and Allen S. Final analysis of EST 1290: Phase III protocol for the evaluation of combined modalities in the treatment of surgically resected colonic carcinoma with positive nodes, Dukes’ C. *Dana-Farber Cancer Institute, Department of Biostatistical Science Technical Report No. 1045E*. 2001.
2. Xu R and Dalton A. Final analysis of E8296: Phase II trial of post-operative adjuvant paclitaxel+cisplatin in patients with adenocarcinoma of the esophagus, gastro-esophageal junction, or cardia. *Dana-Farber Cancer Institute, Department of Biostatistical Science Technical Report No. 1103E*. 2003.
3. Xu R and Dalton A. Final analysis of E2298: Phase II trial of docetaxel and carboplatin in patients with advance squamous carcinoma of the esophagus. *Dana-Farber Cancer Institute, Department of Biostatistical Science Technical Report No. 1105E*. 2004.
4. Overholser R, Xu R. LASSO for clustered data. *JSM Proceedings*, WNAR; 2012: 5201-5207.
5. Lee KE, Kim Y, Xu R. Bayesian variable selection under the proportional hazards mixed-effects model. *JSM Proceedings*, ENAR; 2012: 1279-1292.
6. Faig W, Xu R, Chambers C. The analysis of biased spontaneous abortion data from observational studies. *JSM Proceedings*, Biometrics Section; 2014: 39-49.
7. Hou J, Bradic J, Xu R. Fine-Gray Competing Risks Model with High Dimensional Covariates: Estimation and Inference. <https://arxiv.org/abs/1707.09561>.
8. Ying A, Xu R and Murphy J. Two-Stage Residual Inclusion under the Additive Hazards Model - An Instrumental Variable Approach with Application to SEER-Medicare Linked Data. arXiv preprint, arXiv:1805.07849.

9. Hou J, Bradic J, Xu R. Estimating Treatment Effect under Additive Hazards Models with High-dimensional Covariates. arXiv preprint, arXiv:1907.00287.
10. Zhang Y, Xu R. Marginal Structural Illness-Death Models for Semi-Competing Risks Data. arXiv preprint, arXiv:2204.10426.
11. Luo J, Xu R. Doubly Robust Inference for Hazard Ratio under Informative Censoring with Machine Learning. arXiv preprint, arXiv:2206.02296.
12. Wang Y, Ying A, Xu R. Doubly Robust Estimation under Covariate-induced Dependent Left Truncation. arXiv preprint, arXiv:2208.06836.

RECENT INVITED PRESENTATIONS

- International Chinese Statistical Association (ICSA) Applied Symposium 2009
- International Statistical Institute (ISI) Environmetrics Society Conference 2009
- International Chinese Statistical Association (ICSA) Applied Symposium 2010
- International Chinese Statistical Association (ICSA) International Conference 2010
- International Biometric Society Western North American Region (WNAR) 2011
- Teratology Society Annual Meeting/OTIS Workshop - Platform Presentation 2011
- International Society of Clinical Biostatistics (ISCB) 2011
- Joint Statistical Meetings (JSM) 2012
- International Society of Non-Parametric Statistics (ISNPS) 2012
- Workshop on Statistical Analysis of Multi-outcome Data - Paris 2012
- Statistical Society of Canada (SSC) Annual Meeting 2013
- International Biometric Society Western North American Region (WNAR) 2013
- Spring Research Conference on Statistics in Industry and Technology - UCLA 2013
- Institute of Mathematical Statistics (IMS)-China International Conference on Statistics and Probability 2013
- Second Taihu Lake (Su Zhou) International Statistical Forum 2013
- International Chinese Statistical Association (ICSA) International Conference - Hongkong 2013
- International Society of Non-Parametric Statistics (ISNPS) 2014
- Joint Statistical Meetings (JSM) 2014
- Joint Statistical Meetings (JSM) 2015
- International Chinese Statistical Association (ICSA) Applied Symposium 2015
- Nankai Statistical Forum - Outstanding Alumni Forum 2015
- The 5th Biostatistics Workshop of Jilin University (Changchun, China) 2015

- Statistics Colloquium, RAND Corporation 2015
- Statistics Colloquium, University of Waterloo, Canada 2016
- International Society of Non-Parametric Statistics (ISNPS) 2016
- International Chinese Statistical Association (ICSA) International Conference - Shanghai 2016
- Georgia State University 5th Workshop on Biostatistics and Bioinformatics - Atlanta 2017
- 3rd ICSA - Canada Chapter Symposium - Vancouver 2017
- Duke - Industry Statistical Symposium 2017
- Statistics Colloquium, Fudan University, China 2017
- Statistics Colloquium, University of Melbourne, Australia 2018
- International Society of Non-Parametric Statistics (ISNPS) 2018
- ICSA - China Conference - Qingdao 2018
- Statistics Colloquium, University of California, Irvine, 2018
- Special invited speaker, Yunnan Large-scale Complex Data Analysis Workshop, China 2018
- Lifetime Data Science Conference 2019
- Lifetime Data Science Conference 2019 Discussant
- ICSA International Conference - Hangzhou 2019
- European Meeting of Statisticians 2019
- Statistics Colloquium, University of California, Davis 2019
- Biostatistics Colloquium, Ludwig-Maximilians University, Munich 2019
- Joint Statistical Meetings (JSM) 2020
- Statistics Colloquium, University of California, Santa Barbara 2020
- Mathematics and Statistics Colloquium, University of Toledo 2020
- ICSA Applied Statistics Symposium 2020
- Biotatistics Colloquium, University of California, San Diego 2021
- Association of Women in Math Colloquium, University of California, San Diego 2021
- Quality and Productivity Research Conference, Florida 2021
- Joint Statistical Meetings (JSM) 2021
- ICSA Applied Statistics Symposium 2021
- Second CREATE Clinical Research Conference, Shanghai 2021
- Statistics Colloquium, Fudan University, China 2021
- Biostatistics Colloquium, Memorial Sloan-Kettering Cancer Center 2022

- International Society of Non-Parametric Statistics (ISNPS) 2022
- ICSA - China Conference - 2022
- Biostatistics Colloquium, Brown University

PROFESSIONAL SOCIETIES AND CONFERENCE ORGANIZATIONAL ACTIVITIES

- Organizer, First UCSD Workshop in Statistics, Biostatistics and Bioinformatics, 2007
- Organizer, topic contributed session, Joint Statistical Meetings 2007
- Organizer, invited session, ICSA Applied Symposium 2009
- Organizer, invited session, ICSA Applied Symposium 2010
- Organizer, invited session, WNAR 2011
- Organizer, invited session, ISNPS 2012
- Local Committee Chair, ICSA at 2012 JSM
- Charting Committee and Organizer of invited session, ISNPS 2014
- IMS Program Chair, WNAR 2015
- Organizer, invited session, ISNPS 2016
- Organizer, invited session, ICSA Applied Symposium 2016
- Organizer, invited session, Lifetime Data Science Conference 2017
- Organizer, invited session, ISNPS 2018
- Program Committee and Organizer, invited sessions, Lifetime Data Science Conference 2019
- Program Committee and Organizer, invited sessions, ICSA International Conference 2019
- Young Investigator Award Committee, ICSA International Conference 2019
- Program Committee, ICSA China Conference 2020
- Student Paper Award Committee, Joint Statistical Meetings (JSM) 2020
- Organizer, invited session, ISNPS 2021
- Student Paper Award Committee, Joint Statistical Meetings (JSM) 2021
- Organizer, invited session, Joint Statistical Meetings (JSM) 2021
- Council of Sections Representative, 2022-2024, for the ASA Lifetime Data Science Section

COMMUNITY INVOLVEMENT

- Fundraising campaign, La Jolla YMCA, 2007

- Director of Math Club, Innovation Academy Charter School, 2010-2011
- Guest Speaker, San Diego High School Honors Statistics Contest Award Dinner, 2012
- Board of Directors, Association for Preserving Historical Accuracy of Foreign Invasions in China (APHAFIC), 2012 - present