

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, Department of Family and Preventive Medicine and Department of Mathematics, 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
2003	Keynote Speaker, International Conference on Methodology and Statistics

PROFESSIONAL SOCIETIES

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

EDITORIAL BOARDS

Lifetime Data Analysis
Statistical Modelling: an International Journal
Biometrical Journal

COLLABORATIVE RESEARCH EXPERIENCE

UCSD Clinical and Translational Research Institute:

Director of Biostatistics, Epidemiology, and Research Design 2009 - present

San Diego Organization of Teratology Information Services Research Center:

Director of Biostatistics 2006 - present

UCSD General Clinical Research Center:

Director of Biostatistics 2006 - 2010

Moore's UCSD Cancer Center:

Director of Biostatistics Share Resource 2004 - 2006

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

Head Statistician, Thoracic Committee 2002 - 2004

Statistician, Gastrointestinal Committee 1997 - 2004

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.

University of Paris, France: 1995

Research and data analysis on interface between phase III and phase IV clinical trials.

TEACHING

MATH 181AB (undergraduate Introduction to Mathematical Statistics), MATH 281AC (graduate Mathematical Statistics), MATH 284 (Survival Analysis).

SELECTED PUBLICATIONS

Methodological 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. (Also 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*, accepted.
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*, accepted.
25. Xu R, Chambers C. A sample size calculation for spontaneous abortion in observational studies. *Reproductive Toxicology*, accepted; doi:10.1016/j.reprotox.2011.08.009.

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 childrens 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, Untzer 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. 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.
23. 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*, accepted.

Books, Monographs and Reviews:

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.

Technical Reports and Proceedings:

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.