### Ruosha Li

Department of Biostatistics and Data Science Email: Ruosha.Li@uth.tmc.edu

School of Public Health

The University of Texas Health Science Center at Houston

1200 Pressler Street, W930, Houston, TX, 77030 Phone: 713-500-9572

#### **RESEARCH INTERESTS**

- Survival analysis; Quantile regression; Longitudinal data; Estimating equations.
- Prediction; Validation; Association; Agreement.
- Liver disease; Clinical trials; Parkinson's disease; Traumatic brain injury; Nutrition; Biomarkers.

#### **EXPERIENCE**

• Associate Professor 2018—present Department of Biostatistics and Data Science, University of Texas Health Science Center at Houston

• Assistant Professor 2014–2018

Department of Biostatistics and Data Science, University of Texas Health Science Center at Houston

Assistant Professor
 2011–2014

 Department of Biostatistics, Graduate School of Public Health, University of Pittsburgh.

• Research Assistant 2008–2011

Department of Biostatistics & Bioinformatics, Emory University.

#### **EDUCATION**

Ph.D. in Biostatistics
 Department of Biostatistics & Bioinformatics, Emory University. Advisor: Dr. Limin Peng

• B.S. in Statistics 2006

Department of Probability & Statistics, School of Mathematical Sciences, Peking University, China.

### **PUBLICATIONS**

- + Students supervised or co-supervised
- \* Corresponding or co-corresponding author

### Methodological Papers

- Zhang, C.<sup>+</sup>, Ning, J., Squires, J., Belle, S., Cai, J., Li, R.\* (2024) Dynamic Risk Score Modeling for Multiple Longitudinal Risk Factors and Survival. *Computational Statistics & Data Analysis*. In press.
- 2. Li, W.<sup>+</sup>, **Li, R.**\*, Yan, Q., Feng, Z., Ning, J. (2023) Conditional concordance-assisted learning under matched case-control design for combining biomarkers for population screening. *Statistics in Medicine*. 42(9): 1398–1411.
- 3. Ding, M.<sup>+</sup>, **Li, R.**, Qin, J., Ning, J. (2023) A Double Robust Test for High-Dimensional Gene Co-expression Networks Conditioning on Clinical Information. *Biometrics* In press.
- 4. Zhang, J.+, Ning, J., **Li, R.**\* (2023) Evaluating Dynamic Discrimination Performance of Risk Prediction Models for Survival Outcomes. *Statistics in Biosciences* 15: 353–371.

- 5. Guo, X., **Li, R.**, Zhou, J., He, X. (2023) A Robust Quantitative Risk Screening for Subgroup Pursuit in Clinical Trials, *Econometrics and Statistics*, In press.
- 6. Liu, X.+, Ning, J., He, X., Tilley, B., **Li, R.**\* (2023) Semiparametric Regression Modelling of the Global Percentile Outcome. *Journal of Statistical Planning and Inference* 222: 149-159.
- 7. Can, X.+, Huang, X., **Li, R.**, Pisters, P. (2022) A Flexible-Hazards Cure Model with Application to Patients with Soft Tissue Sarcoma. *Statistics in Medicine*. 41(29):5698-5714
- 8. Zhang, C.<sup>+</sup>, Ning, J., Belle, S., Squires, R., Cai, J., **Li, R.**\* (2022) Assessing predictive discrimination performance of biomarkers in the presence of treatment-induced dependent censoring. *Journal of the Royal Statistical Society-C*. 71(5):1137-1157.
- 9. **Li, R.**, Ning, J., Feng, Z. (2022) Estimation and inference of predictive discrimination for survival outcome risk prediction models. *Lifetime Data Analysis* 28(2):219-240.
- 10. Zhang, J.+, Ning, J., Huang, X., **Li, R** \* (2021) On the Time-varying Predictive Performance of Longitudinal Biomarkers: Measure and Estimation. *Statistics in Medicine* 40 (23), 5065-5077.
- 11. Ding, M. +, Ning, J. and **Li, R.**\* (2021) Evaluation of competing risks prediction models using polytomous discrimination index. *The Canadian Journal of Statistics*. 49(3): 731-753.
- 12. Balmert, L., **Li, R.**, Peng, L., and Jeong, J. (2021) Quantile Regression on inactivity time. *Statistical Methods in Medical Research* 30(5):1332-1346.
- 13. Huang, J., Cai, Y., Du, J., **Li, R.**, Ellenberg, S., Hennessy, S., Tao, C., Chen, Y. (2021) Monitoring vaccine safety by studying temporal variation of adverse events using Vaccine Adverse Event Reporting System. *Annals of Applied Statistics*. 15(1): 252-269
- 14. Chen, L., Cheng, Y., Ding, Y., and **Li, R.** (2021) Quantile association regression on bivariate survival data. *The Canadian Journal of Statistics*. 49(3): 612-636.
- 15. DeSantis, S. M., **Li, R.**, Zhang, Y., Wang, X., Vernon, S. W., Tilley, B. C., Koch, G. (2020). Intent-to-treat analysis of cluster randomized trials when clusters report unidentifiable outcome proportions. *Clinical Trials*. 17(6):627-636.
- 16. Cai, W., Li, L., and **Li, R.** (2020) Dynamic prediction of competing risk events using landmark sub-distribution hazard model with multiple longitudinal biomarkers. *Statistical Methods in Medical Research*. 29(11):3179-3191.
- 17. Li, W.+, **Li, R.**, Feng, Z. and Ning, J. (2020) Semiparametric Isotonic Regression Analysis for Risk Assessment under Nested Case-Control and Case-Cohort Designs. *Statistical Methods in Medical Research* 29(8):2328-2343.
- 18. Liu, X.+, Ning, J., Cheng, Y., Huang, X., **Li, R.**\* (2019) A flexible and robust method for assessing conditional association and conditional concordance. *Statistics in Medicine* 38(19): 3656-3668.
- 19. Lin, X., Li, R., Yan, F., Lu, T. and Huang, X. (2019) Quantile residual lifetime regression with functional principal component analysis of longitudinal data for dynamic prediction. *Statistical Methods in Medical Research*. 28(4):1216-1229.
- 20. Xie, J. and **Li, R.** (2018) False discovery rate control for high-dimensional networks of quantile associations conditioning on covariates. *Journal of the Royal Statistical Society-B*. 80: 1015-1034.
- 21. Lin, X., Lu, T., Yan, F., **Li, R.** and Huang, X. (2018) Mean residual life regression with functional principal component analysis on longitudinal data for dynamic prediction. *Biometrics*. 74(4): 1482-1491.
- 22. Yan, F., Lin, X., **Li, R.** and Huang, X. (2018) Functional principal components analysis on moving time windows of longitudinal data: dynamic prediction of times to event. *Journal of the Royal Statistical Society-C*. 67(4):961-978.
- 23. Li, X.+, Chen, Y. and **Li, R**\* (2017) A frailty model for recurrent events during alternating restraint and non-restraint time periods. *Statistics in Medicine*. 36(4): 643–654.

- 24. **Li, R\***, Cheng, Y., Chen, Q. and Fine, J. (2017) Quantile association for bivariate survival data. *Biometrics*. 73(2): 506–516.
- 25. **Li, R.** and Peng, L. (2017) Assessing quantile prediction with censored quantile regression models. *Biometrics*. 73(2): 517–528.
- 26. **Li**, **R**\* and Cheng, Y. (2016) Flexible association modelling and prediction with semi-competing risks data. *The Canadian Journal of Statistics*, 44 (3): 361–374.
- 27. **Li, R.\***, Huang, X., and Cortes, J. (2016) Quantile residual life regression with longitudinal biomarker measurements for dynamic prediction. *Journal of the Royal Statistical Society-C*. 65 (5): 755–773.
- 28. **Li, R.** and Peng, L. (2015) Quantile regression adjusting for dependent censoring from semi-competing risks. *Journal of the Royal Statistical Society B.* (77) 107—130.
- 29. **Li, R.\***, Cheng, Y., and Fine, J.P. (2014) Quantile association regression models. *Journal of the American Statistical Association*. 109:505, 230-242.
- 30. **Li**, **R.** and Peng, L. Varying coefficient subdistribution regression for left-truncated semi-competing risks data. (2014). *Journal of Multivariate Analysis*. 131: 65-78.
- 31. Pan, Y., Caudill, S., **Li, R.** and Caldwell, K. (2014) Median and quantile tests under complex survey design using SAS and R. *Computer Methods and Programs in Biomedicine* 117(2):292-7
- 32. Ji, S., Peng, L., **Li, R.** and Lynn, M. (2014) Analysis of dependently censored data based on quantile regression. *Statistica Sinica*. 24(3):1411-1432.
- 33. Guo, Y., **Li, R.**, Peng, L, and Manatunga, A.K. (2013) New agreement measures based on survival processes. *Biometrics* 69: 874-882.
- 34. Peng, L., **Li, R.**, Guo, Y. and Manatunga, A.K. (2011). A framework for assessing broad sense agreement between ordinal and continuous measurements. *Journal of the American Statistical Association* (featured article), 106:496, 1592-1601.
- 35. Hanfelt, J.J., **Li, R.**, Pan, Y., and Payment, P. (2011). Robust inference for sparse cluster-correlated count data. *Journal of Multivariate Analysis* 102: 182-192.
- 36. **Li, R.** and Peng, L. (2011). Quantile regression for left-truncated semi-competing risks data. *Biometrics* 67: 701-710.

### Collaborative Papers in Biomedical Research

- 37. Backley, S., Bergh, E., Garnett, J., **Li, R.**, Maroufy, V., Jain, R., Fletcher, S., Tsao, K., Austin, M., Johnson, A. and Papanna, R. (2024), Fetal cardiovascular changes during open and fetoscopic in-utero spina bifida closure. *Ultrasound in Obstetrics & Gynecology* In press.
- 38. Pena, M., Lindsay, J., **Li, R.**, Deshmukh, A.A., Swint, J.M., Morgan, R.O., Telemental Health Use Is Associated With Lower Health Care Spending Among Medicare Beneficiaries with Major Depression. (2023+) *Medical Care*. Accepted.
- 39. Li, F., Ramirez, Y., Yano, Y., Daniel, C. R., Sharma, S. V., Brown, E. L., **Li, R.**, Moshiree, B., Loftfield, E., Lan, Q., Sinha, R., Choi, M., Vogtmann, E.The Association between Inflammatory Bowel Disease and All-Cause and Cause-Specific Mortality in the UK Biobank. (2023) *Annals of Epidemiology*. In press.
- 40. **Li, R.**, Wang, J., Zhang, C., Squires, J., Belle, S., Ning, J., Cai, J. Improved Mortality Prediction for Pediatric Acute Liver Failure using Dynamic Prediction Strategy (2023) *Journal of Pediatric Gastroenterology and Nutrition*. In press.
- 41. Jones, M., Gates, R., Gibson, L., Broadway, D., Bhatti, G., Tea, J., Guerra, A., **Li, R.**, Varman, B., Elammari, M., Jorge, R. E., Marsh, L. (2023) Post-traumatic stress disorder and risk of

- degenerative synucleinopathies: systematic review and meta-analysis. *The American Journal of Geriatric Psychiatry*. In press.
- 42. Ahmed, S., **Li, R.**, Richardson, P., Ghosh, S., Steele, L., White, D., Djotsa, A., Sims, K., Gifford, E., Hauser, E., Virani, S., Morgan, R., Delclos, G., Helmer, D.(2023+) Association of ASCVD, Hypertension, Diabetes, and Hyperlipidemia with Gulf War Illness among Gulf War Veterans. *Journal of the American Heart Association*. Accepted.
- 43. Gould, K.L., Johnson, N.P., Roby, A.E., Bui, L., Kitkungvan, D., Patel, M.B., Nguyen, T., Kirkeeide, R., Haynie, M., Arain, S.A., Charitakis, K., Dhoble, A., Smalling, R., Nascimbene, A., Jumean, M., Kumar, S., Kar, B., Sdringola, S., Estrera, A., Gregoricm, I., Lai, D., **Li, R.**, McPherson, D., Narula, J. (2023+) Coronary Flow Capacity And Survival Prediction After Revascularization: Physiological Basis And Clinical Implications. *European Heart Journal*. In press.
- 44. Bhatti, G., Villalon, A., **Li, R.**, Elammari, M., Price, A., Steele, L., Garcia, J.M., Marcelli, M., Jorge, R.(2023) Hormonal changes in veterans with Gulf War Illness. *Life Sciences*. In press.
- 45. Gould, K.L., Nguyen, T., Kirkeeide, R., Roby, A.E., Bui, L., Kitkungvan, D., Patel, M.B., Madjid, M., Haynie, M., Lai, D., **Li, R.**, Narula, J., Johnson, N.P. (2023) Subendocardial and transmural myocardial ischemia: clinical characteristics, prevalence, and outcomes with and without revascularization. *JACC: Cardiovascular Imaging*. 16 (1) 78–94.
- 46. Zhu, P., Du, X. L., Hwang, L.Y., Lairson, D., **Li, R.**, Esquenazi, Y., Zhu, J. (2023) Impact of timing to initiate adjuvant therapy on survival of elderly glioblastoma patients using the SEER-Medicare and national cancer databases. *Scientific Reports* 13, 3266.
- 47. Damgacioglu, H., Lin, YY, Ortiz, AP, Wu, C, Shahmoradi, Z, Shyu, S, **Li, R**, Nyitray, AG, Sigel, K, Clifford, GM, Jay, N, Colon Lopez, V, Barnell, GM, Chiao, EY, Stier, EA, Ortiz-Ortiz, K, Ramos-Cartagena, J, Sonawane, K, Deshmukh, AA. (2023) State variation in squamous cell carcinoma of the anus incidence and mortality, and association with HIV/AIDS and smoking in the United States. *Journal of Clinical Oncology*. 41(6): 1228–1238.
- 48. Varon, M., Salcedo, M., Fellman, B., Troisi, C., Gowen, R., Daheri, M., Rodriguez, A., Toscano, P., Guerra, L., Gasca, M., Cavazos, B., Marin, E., Fisher-Hoch, S., Fernandez, M., Reininger, B., Li, R., Baker, E., Schmeler, K. (2023) A Comprehensive Program to Improve Treatment of Precancerous Cervical Lesions in the Rio Grande Valley of Texas. *Journal of Public Health Management and Practice*. In press.
- 49. Zhu, Y., Wu, C.F., Giuliano, A.R., Fernandez, M.E., Ortiz, A.P., Ganduglia Cazaban, C., **Li,R**, Deshmukh, A.A., Sonawane, K. (2022) Tdap-HPV vaccination bundling in the USA: Trends, predictors, and implications for vaccine series completion, *Preventive Medicine*, Volume 164, 107218.
- 50. Regalado, E., Morris, S., Braverman, A., Hostetler, E.M., De Backer, J., **Li, R**, Pyeritz, R.E., Yetman, A.T., Cervi, E., Shalhub, S., Jeremy, R., LeMaire, S., Ouzounian, M., Evangelista, A., Boileau, C., Jondeau, G., Milewicz, D.M. (2022) Comparative Risks of Initial Aortic Events Associated With Genetic Thoracic Aortic Disease. *Journal of the American College of Cardiology*, 80 (9) 857–869.
- 51. Xie, C., **Li, R.**, Huang, X., Chihara, D., Flowers, C.R. (2022) The Impact of Sequence of Therapy for Older Patients With Follicular Lymphoma: SEER-Medicare Analysis. *Clinical Lymphoma Myeloma and Leukemia*. 22(10): e938-e946.
- 52. Damgacioglu, H., Sonawane, K., Zhu, Y., **Li, R.**, Balasubramanian, B.A., Lairson, D.R., Giuliano, A.R., Deshmukh, A.A. (2021) Oropharyngeal Cancer Incidence and Mortality Trends in All 50 States in the US, 2001-2017. *JAMA Otolaryngology Head & Neck Surgery*
- 53. Tilley, B.C., Mainous, A.G., Amorrortu, R.P., McKee, M.D., DW Smith, **Li, R.**, DeSantis, S., Vernon, S.W., Koch, G., Ford, M.E., Diaz, V., Alvidrez, J. (2021) Using increased trust in medical researchers to increase minority recruitment: the RECRUIT cluster randomized clinical trial.

- Contemporary Clinical Trials. 109:106519.
- 54. Sonawane, K., Lin, Y.Y., Damgacioglu, H., Zhu, Y., Fernandez, M.E., Montealegre, J.R., Ganduglia, C., **Li, R.**, Lairson, D.R., Lin, Y., Giuliano, A.R., Deshmukh, A.A. (2021) Trends in Human Papillomavirus Vaccine Safety Concerns and Adverse Event Reporting in the United States. *JAMA Network Open.*4(9):e2124502.
- 55. Moussa, I.; Day, R.S.; **Li, R.**; Du, X.L.; Kaseb, A.O.; Jalal, P.K.; Daniel-MacDougall, C.; Hatia, R.I.; Abdelhakeem, A.; Rashid, A.; Chun, Y.S.; Li, D.; Hassan, M.M. (2021) Dietary patterns and hepatocellular carcinoma risk among US adults. *Nutrients*. 13 (6), 2011.
- Moussa, I, Day, RS, Li, R, Kaseb, A., Jalal, P.K., Daniel-MacDougall, C.; Hatia, R.I.;
   Abdelhakeem, A.; Rashid, A.; Chun, Y.S., Li, D., Hassan, M.M. Association of dietary fat intake and hepatocellular carcinoma among US adults. *Cancer Medicine*. 10 (20), 7308-7319.
- 57. Zhang, X., Pang, L., Sharma, S., **Li, R.**, Nyitray, A., Edwards, B. (2021) Malnutrition and Overall Survival in Older Patients with Cancer *Clinical Nutrition*. 40(3):966-977.
- 58. Gu, D., Morgan, R.O., **Li, R.**, Weber, E.S., Shen, C. (2020) Association between depression and healthcare expenditures among elderly cancer patients. *BMC Psychiatry*. 20: 131.
- 59. Jones, M.B., Jeevan, S., Wang, J.<sup>+</sup>, **Li, R.**, Agrawal, R., Sharafkaneh, A., Marsh, L., Jorge, R. (2020) Clinical Correlates of Dream Enactment Behaviors in Previously Deployed OEF/OIF/OND Veterans: An Exploratory Analysis. *Journal of Neuropsychiatry*. 32(2):147-153.
- 60. Fu, S., Wang, M., Zhao, H., **Li, R.**, Lairson, D.R., Giordano, Zhao, B., Du, X.L. (2019), Comparative Effectiveness of Chemotherapy, Rituximab, and Bendamustine in Medicare beneficiaries with Mantle Cell Lymphoma. *Clinical Lymphoma, Myeloma and Leukemia*. 19(11):e616-e623.
- 61. Jorge, R., **Li, R.**, Liu, X.<sup>+</sup>, McGavin, J.K., Shorter, D.I., Action, L., Arndt, S. (2019), Treating Alcohol Use Disorder in U.S. Veterans: The Role of Traumatic Brain Injury. *Journal of Neuropsychiatry*. 31(4):319-327.
- 62. Wilde, E., Newsome, M.R., Ott, S., Hunter, J., Dash, P.K., Redell, J.B., Spruiell, M., Diaz, M., Chu, Z.D., Goodrich-Hunsaker, N.J., Petrie, J.A., **Li, R.**, Levin, H. (2019). Persistent Disruption of Brain Connectivity After Sports-Related Concussion in a Female Athlete. *Journal of Neurotrauma*. 15;36(22):3164-3171.
- 63. Zhang, X., Pang, L., Sharma, S., **Li, R.**, Nyitray, A., Edwards, B. (2019) The validity of three malnutrition screening markers among older patients with cancer. *BMJ Supportive and Palliative Care*. doi: 10.1136/bmjspcare-2018-001706.
- 64. Zhang, X., Tang, T., Pang, L., Sharma, S., **Li, R.**, Nyitray, A., Edwards, B. (2019) Malnutrition and overall survival in older adults with cancer: A systematic review and meta-analysis. *Journal of Geriatric Oncology* 10(6):874-883.
- 65. Bzowej, N.H., Tran, T., **Li, R.**, Belle, S.H., Smith, C., Khalili, M., Chung, R.T., Tsai, N., Terrault, N. for the Hepatitis B Research Network. (2019) ALT Flares in Pregnant North American Women with Chronic Hepatitis B Infection: Results from a Prospective Observational Study. *American Journal of Gastroenterology* 114(8):1283-1291.
- 66. Zhang, X., Pang, L., Sharma, S., **Li, R.**, Nyitray, A., Edwards, B. (2019) Prevalence and factors associated with malnutrition in older patients with cancer. *Journal of Geriatric Oncology* 10(5): 763–769.
- 67. Fu, S., Wang, M., **Li, R.**, Lairson, D.R., Zhao, B., Du, X.L. (2019) Increase in survival for patients with mantle cell lymphoma in the era of novel agents in 1995-2013: Findings from Texas and national SEER areas. *Cancer Epidemiology* 58(2019): 89-97.
- 68. Rosenblatt, A., **Li, R.**, Fortier, C., Liu, X., Fonda, J.R., Villalon, A., McGlinchey, R., Jorge, R. (2019) Latent Factor Structure of PTSD Symptoms in Veterans with a History of Mild Traumatic

- Brain Injury and Close-Range Blast Exposure. *Psychological Trauma: Theory, Research, Practice, and Policy*. 11(4):442-450.
- Narkewicz, M.R., Horslen, S., Hardison, R., Shneider, B.L., Rodriguez-Baez, N., Alonso, E., Ng, V., Leonis, M.A., Loomes, K., Rudnick, D., Rosenthal, P., Romero, R., Subbarao, G., Li, R., Belle, S., Squires, R. (2018) A Learning Collaborative Approach Increases Specificity of Diagnosis of Acute Liver Failure in Pediatric Patients. *Clinical Gastroenterology and Hepatology*. 16(11):1801-1810.
- 70. Mahale P., Engels, E.A., **Li, R.**, Torres, H.A., Hwang, L.Y., Brown, L., Kramer, J.R., (2018) The effect of sustained virological response on the risk of extrahepatic manifestations of hepatitis C virus infection. *Gut.* 67(3):553-561..
- 71. Fu, S., Wang, M., Lairson, D.R., **Li., R.**, Zhao, B., Du, X.L. (2017), Trends and variations in mantle cell lymphoma incidence from 1995 to 2013: A comparative study between Texas and National SEER areas. *Oncotarget*. 8(68):112516-112529
- 72. Wills, A.M., Li, R., Perez, A., Ren, X., Boyd, J. on behalf of the NINDS NET-PD Investigators (2017) Predictors of Weight Loss in early treated Parkinson's Disease from the NET-PD LS-1 cohort. *Journal of Neurology*. 264(8):1746-1753.
- 73. Mahale P, Torres HA, Kramer JR, Hwang LY, **Li, R.**, Brown EL, Engels EA. (2017) Hepatitis C virus infection and the risk of cancer among elderly US adults: A registry-based case-control study. *Cancer.* 1;123(7):1202-1211
- 74. Hauser, R., **Li, R.**, Perez, A., Ren, X., ..., Kieburtz, K., Tilley, B. for the NINDS NET-PD Investigators. (2017) Longer duration of MAO-B inhibitor exposure is associated with less clinical decline in PD: an analysis of NET-PD LS1. *Journal of Parkinson's Disease* (featured article), 7(1): 117-127.
- 75. Hassan, M., Kim, R., **Li, R**, Smith, C., Fried, M. Sterling, R., Ghany, M., Wahed, A., Ganova-Raeva, L., Roberts, L., Lok, A. for the Hepatitis B Research Network (2017), Characteristics of US-born versus foreign-born Americans of African descent with chronic Hepatitis B. *American Journal of Epidemiology*. 19:1-11
- 76. Ng, V., **Li, R**, Loomes, K., Leonis, M., Rudnick, D., Belle, S.H., and Squires, R. (2016) Outcomes of children with and without hepatic encephalopathy from the Pediatric Acute Liver Failure (PALF) study group. *Journal of Pediatric Gastroenterology & Nutrition*. 63(3): 357-64
- 77. Dabbs, A.D., Song, M.K., Myers, B.A., **Li, R.**, Dew, M.A., Hawkins, R.P., Pilewski, J.M., Bermudez, C.A., Aubrecht, J., Begey, A., Connolly, M., Alrawashdeh, M. (2016) A Randomized Controlled Trial of a Mobile Health Intervention to Promote Self-Management after Lung Transplantation. *American Journal of Transplantation*, 16(7):2172-80.
- 78. **Li, R**, Belle, S.H., Horslen, S., Chen, L.W., Zhang, S., Squires, R. (2016) Clinical Course among Cases of Acute Liver Failure of Indeterminate Diagnosis. *Journal of Pediatrics*, 171: 163–170.
- 79. Taylor, S., **Li, R**, Petschauer, J., Donovan, H., O'Neal, S., Keeler, A., Zamboni, W., Edwards, R., Zorn, K. (2015) Phase I Study of Intravenous (IV) Docetaxel and Intraperitoneal (IP) Oxaliplatin in Recurrent Ovarian and Fallopian Tube Cancer. *Gynecologic Oncology*, 138(3): 548-553.
- 80. Gu, S., **Li, R**, Leader, J.K., Zheng, B., Bon, J., Gur, D., Sciurba, F., Jin, C., Pu, J. (2015) Obesity and extent of emphysema depicted at CT. *Clinical Radiology*. 70(5): e14-9.
- 81. Ju, J. #, **Li, R**#, Gu, S., Leader, J.K., Wang, X., Chen, Y., Zheng, B., Wu, S., Gur, D., Sciurba, F., Pu, J. (2015) Impact of Emphysema Heterogeneity on Pulmonary Function. *PLOS One*. (# contributed equally).
- 82. Ghany, M, Perrillo, R, **Li, R**, Belle, SH, Janssen, HLA, Terrault, NA, Shuhart, MC, Lau, DT-Y, Kim, WR, Fried, MW, Sterling, RK, Di Bisceglie AM, Han S-HB, Ganova-Raeva LM, Chang K-M, Suk-Fong Lok A. (2015) Characteristics of Adults in the Hepatitis B Research Network in North

- America Reflect Their Country of Origin and HBV Genotype, *Clinical Gastroenterology and Hepatology*. 13(1):183-192.
- 83. Squires, R., Balint, J., Horslen, S., Wales, P., Soden, J. Duggan, C., **Li, R.**, Belle, S. Race affects outcome among infants with intestinal failure. (2014). *Journal of Pediatric Gastroenterology & Nutrition*. 59(4):537-543.
- 84. DeVito Dabbs, A.J., Song, MK, Myers, BM, Hawkins, RP, Aubrecht, J, Begey A, Connolly, **Li, R.**, Pilewski, JM, Bermudez, CA & Dew, MA. (2013). Clinical trials of health IT interventions intended for patient use: unique issues and considerations. *Clinical Trials: Journal of the Society for Clinical Trials*. 10(6):896-906.
- 85. Hertzberg, R.C., Pan, Y., **Li, R.**, Haber, L., Lyles, R.H., Herr, D.W., Moser, V.C., Simmons, J.E.. (2013) A four step approach to evaluate mixtures for consistency with dose addition. *Toxicology*. 313: 134-144.
- 86. Mwanza, J.C., Lyke, D.F., Hertzberg, R.C., Haber, L., Kohrman, V.M., **Li, R.**, Pan, Y., Lyles, R.H., Simmons, J.E., Macmillan, D.K., Zehr, R.D., Swank, A.E., Herr, D.W. (2012) Cholinesterase inhibition and depression of the photic after discharge of flash evoked potentials following acute or repeated exposures to a mixture of carbaryl and propoxur. *Neurotoxicology*. 33(3):332-46.
- 87. Froehlich, C.D., Rigby, M.R., Rosenberg, E.S., **Li, R.**, Roerig, P.L.J., Easley, K.A. and Stockwell, J.A. (2009). Ultrasound-guided central venous catheter placement decreases complications and decreases placement attempts compared with the landmark technique in patients in a pediatric intensive care unit, *Critical care medicine*, 37(3): 1090-2009.
- 88. Muller, S., Pan, Y., **Li, R.**, Chi, A.C. (2008). Changing trends in the incidence of oral squamous cell carcinoma with particular reference to young patients, 1971-2006. The Emory University Experience. *Head and Neck Pathology*, 2(2): 60-66.
- 89. Chi, A.C., Lambert III, P.R., Pan, Y., **Li, R.**, Vo, D.T., Edwards, E., Gangarosa, P. and Neville, B.W. (2007). Is alveolar ridge keratosis a true leukoplakia?: A clinicopathologic comparison of 2,153 lesions. *The Journal of the American Dental Association*, 138(5): 641-651.

#### **BOOK CHAPTER**

• Li, R. and Peng, L. (2017), Survival Analysis with Competing Risks and Semi-competing Risks Data. Invited book chapter for *Handbook of Quantile Regression*, edited by Koenker, R., Chernozhukov, V., He, X. and Peng, L.

#### **GRANT SUPPORTS**

• NIH 1R34AT011530 2022-2025

Feasibility of Mindfulness Meditation Training and Home Practice in Persons with Spinal Cord Injury: A Pilot Study.

PI: Korupolu.

Role: Co-I

Total cost: 516,635.

DOD W81XWH-21-1-0243

2021-2025

Uncovering the long-term impact of oropharyngeal cancer and dysphagia on dietary quality and nutrition among veteran cancer survivors: the U-DINE Study.

PI: Otto Role: Co-I

Total cost: 970,468

NIH 1UG3NR021232

2023-2025 (UG3/UH3 mechanism)

Incorporation of a Health Equity Approach to Hospital Violence Intervention Programs: The Integration of a Community and Hospital Based Initiatives to Reduce Gun Violence in a Large Metropolitan Area

Role: Co-I

Total cost: 997,068

NIH 1R01DK117209.

2018–2024 (with NCE)

Modeling and Validation for Tackling Risk Prediction with Competing Risks by Integrating Multiple Longitudinal Biomarkers.

Role: PI.

Total cost: 1,125,708

• Weatherhead Foundation

2013-present

Century Health Trial (Statistics Core)

PI: Lai

Role: Co-I (from 2021) Total cost: 1,007,480

TIRR Foundation 022-108

2022-2024

Safety and feasibility of paired vagus nerve stimulation with rehabilitation for improving upper extremity function in people with cervical spinal cord injury: A pilot randomized control trial.

PI: Korupolu Role: Co-I

Total cost: 200,000

• NIH U24HL148316 2020-2025

The Allogenic Human Mesenchymal Stem Cell (MSCs) Injection in Patients with Hypoplastic Left Heart Syndrome: A Phase IIB Clinical Trial (ELPIS).

PI: Lai Role: Co-I

Total cost: 1,199,195

DOD W81XWH2110450

2021-2024

Growth Hormone Replacement Therapy in Veterans with Gulf War Illness and GH Deficiency.

PI: Jorge

Role: Co-I (subcontract PI)
Total cost (subcontract): 55,513

Children's Healthcare of Atlanta Inc.

2021-2024

Autologous Cardiac Stem Cell Injection in Patients with Hypoplastic Left Heart Syndrome: An Open Label Pilot Study (CHILD).

PI: Lai Role: Co-I

Total cost: 562,245

DOD W81XWH-20-10272

2021-2024

A Phase IIB Multicenter Study of the Comparative Efficacy and Safety of Transendocardial Injection of MSC in Patients with Non-Ischemic Dilated Cardiomyopathy (DCMII)

PI: Lai. Role: Co-I

Total cost: 3,929,024

Completed:

• NIH 5R03NS108136. 2019–2021

Statistical Methods for Regression Modeling of Global Percentile Outcome in Neurological Diseases.

Role: PI.

Total cost: 110,978

DOD W81XWH-17-1-0368

2017-2020

Persistent Hormonal Changes in Veterans with Gulf War Illness.

PI: Jorge

Role: Co-investigator/subcontract PI Total cost (subcontract): 39,411

• Collaborative agreement with Baylor College of Medicine

2016-2023

Translational Research Center For TBI And Stress Disorders (TRACTS) Network Site

PI: Jorge.

Role: Statistician/ UTH PI

Total cost (agreement): 168,863

• NIH R21HL145487 2019-2022

An Intersectional Approach to Disparities in Hypertension Incidence and Progression.

PI: Aguilar. Role: Co-I.

Total cost: 168,863

• NIH R21MD012942 2018-2020

Work Hour Patterns and Diabetes Disparities.

Pls: Conway, Aguilar.

Role: Co-I.

Total cost: 225,000

• NSF 1612965 2016-2019

Dynamic Prediction of Time to Next Failure Event

Pls: Huang, Li. Role: **Co-Pl** 

Total cost (subcontract): 30,591

• NIH U24MD006941 2011-2018

A Randomized Recruitment Intervention.

PI: Tilley

Role: Co-investigator (2017)

Total cost: 3,583,343

• NIH U01NS043127 2013-2017

Parkinson's Disease Clinical Trial: Statistical Center,

PI: Tilley.

Role: Co-I (2015-2017) Total cost: 1,591,975

University of Pittsburgh CTSI
 2012–2013

Latent Class Trajectory Analysis of PALF Registry Data

Role: PI

Total cost: 20,000

• NIH U01DK082864 2008-2023

Hepatitis B Clinical Research Network-Data Coordinating Center

PI: Belle.

Role: Statistician (2011-2014)

• NIH R01NR010711 2008–2014

Phase III Trial of Pocket PATH: A computerized intervention to promote self-care"

PI: Dabbs.

Role: Co-I (2012-2014).

• NIH 5U01DK072146 2005-2014

A Multi-center group to study acute liver failure in children

PI: Squires.

Role: Statistician (2011-2014)

#### **TEACHING**

#### UTHealth

### - Survival Analysis, PH1831

Fall 2023

Spring 2023

Spring 2022

Spring 2021

Spring 2020

Fall 2019

Fall 2018

Fall 2017

Fall 2016

Spring 2016

Fall 2015

Spring 2015

## Large Sample Theory, PHD1912

Fall 2022

### - Intermediate Biostatistic, PH1700

Spring 2018

Spring 2017

### Introduction to Biostatistics in Public Health, PHWM 1690

Fall 2021

### - Biostatistics Seminar, PH1988

Fall 2018

Spring 2019

### **UPITT**

- Linear Models (two semesters)
- Biostatistics Seminar (three semesters)

#### **ADVISING**

#### **UTHealth**

- Dissertation Supervisor:
  - Xiaoqi Li (main supervisor, co-supervised with Dr. Chen), graduated in 2015
     Dissertation: "Statistical models for recurrent events during alternating restraint and non-restraint periods".
  - Xiangyu Liu, graduated in 2019.
     Dissertation: "Flexible and robust methods based on rank and concordance for data with multiple outcomes".
  - Wen Li, graduated in 2020 (co-supervisor, main supervisor is Dr. Ning)
     Dissertation: "Semiparametric statistical methods for biomarker development."
  - Jing Zhang, graduated in 2021 (main supervisor, co-supervising with Dr. Ning).
     Dissertation: "On the Time-varying Predictive Performance of Longitudinal Biomarkers and Dynamic Prediction Models"
  - Maomao Ding, graduated in 2021 (co-supervisor, main supervisor is Dr. Ning)
     Dissertation: "Statistical Methods for Multivariate Outcomes with Applications to Biomedical Data"
  - Cuihong Zhang, graduated in 2022.
     Dissertation: "Survival Data with Dependent Censoring Due to Treatment: Joint Modeling, Predictive Performance, and Inference."
  - Jingyan Wang, graduated in 2023.
     Dissertation: "Censoring Time Imputation and Risk Assessment using Auxiliary Data in Survival Analysis".

#### – MS Thesis advisor:

• Fen Peng, graduated in 2017

Thesis: "Use of fractional polynomials in dynamic prediction and assessment of prediction accuracy: a simulation study."

Fangfang Yan, graduated in 2017.

Thesis: "Integrate IMPACT with advanced brain imaging to evaluate the effect of sports-related concussion on high school athletes: analysis of a longitudinal study".

Brandon O'Grady, graduated in 2020.

Thesis: "Survival analysis of colorectal cancer patients with liver metastasis".

Ran Hu, graduated in 2021.

Thesis: "Assessing sleep efficiency of nulliparous women in the third trimester of pregnancy".

Sun-Hee Kim, graduated in 2022

Thesis: "Prognostic impact of inflammatory factors in stage III melanoma."

• Samantha Harrison, graduated in 2022

Thesis: "Assessing disparities in houston housing prioritization tool".

# - Other Student Advising:

Student	Dept.	Program	m Role	Status
Xinyang Jiang	BIOS	PhD	Academic advisor	In progress
Ruoxing Li	BIOS	PhD	Academic advisor	In progress
Pierre Fwelo	<b>EHGES</b>	PhD	Committee member	In progress
Sara Stephens	<b>EHGES</b>	PhD	Committee member	In progress
JiYun Tark	<b>EHGES</b>	PhD	Committee member	In progress
Mallika Mathur	<b>EHGES</b>	PhD	Committee member	In progress
Aparna Subramaniam	<b>EHGES</b>	PhD	Committee member	In progress
Jae-Woo Chung	BIOS	MS	Academic advisor	Completed in 2023
Jingxiao Chen	BIOS	PhD	Committee member	Completed in 2023
Jianliang Dai	BIOS	PhD	Committee member	Completed in 2023
Tianlin Xu	BIOS	PhD	Academic advisor	Graduated in 2023
Fangyu Li	EHGES	PhD	Committee member	Graduated in 2023
Can Xie	BIOS	PhD	Academic advisor & committee chair	Graduated in 2023
Olufunke Akiyode	MPACH	PhD	Committee member	Graduated in 2023
Yueh-Yun Lin	MPACH	PhD	Committee member	Graduated in 2023
Holly Hills	<b>EHGES</b>	PhD	Committee member	Graduated in 2023
Qing Yun	BIOS	PhD	Academic advisor & committee chair	Graduated in 2023
Maria Pena	MPACH	PhD	Committee member	Graduated in 2022
Whitney Harrison	EHGES	PhD	Committee member	Graduated in 2022
Melissa Varon	EHGES	PhD	Committee member	Graduated in 2022
Margaret Katana	MPACH	PhD	Committee member	Graduated in 2022
Sarah Ahmed	EHGES	PhD	Committee member	Graduated in 2022
Xueying Wang	BIOS	PhD	Committee member	Graduated in 2022
Jeffrey Lin	BIOS	PhD	Academic advisor & committee chair	Graduated in 2022
Carolyn Crisp	EHGES	PhD	Committee member	Graduated in 2022
Rikita Hatia	EHGES	PhD	Committee member	Graduated in 2021
Emeka Nwachukwu	EHGES	PhD	Committee member	Graduated in 2021
Micaela Sandoval	EHGES	PhD	Committee member	Graduated in 2021
Ellen Regalado	EHGES	PhD	Committee member	Graduated in 2021
Biai Digbeu	BIOS	MPH	Academic advisor	Graduated in 2020
Daniel Mansfield	MPACH	PhD	Committee member	Graduated in 2020
Xinyue Qi	BIOS	PhD	Academic advisor & committee chair	Graduated in 2020
Yiyao Li	BIOS	MS	Academic advisor	Graduated in 2020
Austin Bonnette	BIOS	MPH	Academic advisor	Graduated in 2020
Iman Moussa	EHGES	PhD	Committee member	Graduated in 2020
Lu Zhang	MPACH	PhD	Committee member	Graduated in 2020
Anna Guo	EHGES	MS	Committee member	Graduated in 2019
Tanaya Deshpande	EHGES	MPH	Commitee member	Graduated in 2019
Mengxi Wang	BIOS	MS	Academic advisor	Graduated in 2019
Xiaoxiao Wang	BIOS	MPH	Academic advisor	Graduated in 2019
Quynh Nguyen	BIOS	MS	Committee member	Graduated in 2019
Ping Zhu	EHGES	PhD	Committee member	Graduated in 2019
Dian Gu	MPACH	PhD	Committee member	Graduated in 2019
Peter J. Elyanu	EHGES	PhD	Committee member	Graduated in 2019
Nicole Delgado	EHGES	MS	Committee member	Graduated in 2019
Jacky Kuo	BIOS	MS	Academic advisor	Transfer to PhD 2018
Xiaotao Zhang	EHGES	PhD	Committee member	Graduated in 2018

Sharmila Giri	BIOS	MS	Academic advisor	Graduated in 2018
Shuangshuang Fu	<b>EHGES</b>	PhD	Committee member	Graduated in 2018
Jun Yu	BIOS	PhD	Academic advisor & committee chair	Graduated in 2018
Brandi Markert	<b>EHGES</b>	MS	committee member	Graduated in 2018
Sarah May	BIOS	MS	Academic advisor	Graduated in 2018
Cai Wu	BIOS	PhD	Committee member	Graduated in 2017
Huzhang Mao	BIOS	PhD	Committee member	Graduated in 2017
Olubiyi Aworunse	MPACH	PhD	Committee member	Graduated in 2017
Yiyi Chu	BIOS	PhD	Academic advisor & committee chair	Graduated in 2017
Jin Piao	BIOS	PhD	Academic advisor & committee chair	Graduated in 2017
Peter J. Elyanu	<b>EHGES</b>	MPH	Committee member	Graduated in 2016
Huan Cong	BIOS	PhD	Academic advisor & committee chair	Graduated in 2016
Yi Cai	BIOS	PhD	Academic advisor& committee chair	Graduated in 2016
Parag S. Mahale	<b>EHGES</b>	PhD	Committee member	Graduated in 2016

#### **UPITT**

Student	Dept.	Program	My Role
Yi Ren	BIOS	PhD	Co dissertation supervisor
Bo Fu	BIOS	PhD	Committee member
Seunghyun Won	BIOS	PhD	Committee member
Wen-Chi Wu	BIOS	PhD	Committee member
Yuzhou Liu	BIOS	MS	Committee member
Lu Wang	BIOS	MS	Committee member
Song Zhang	BIOS	MS	Committee member

### **HONORS AND AWARDS**

<ul> <li>Award for Excellence in Teaching, UTHealth School of Public Health.</li> </ul>	2020	
• Travel Award, Women in Statistics Conference, Cary, NC.	2014	
• ENAR Distinguished Student Paper Award, Eastern North American Region.	2011	
<ul> <li>Travel Award, 2nd Summer Institute in Statistics and Modeling in Infectious Diseases, University</li> <li>Washington, Seattle, WA.</li> </ul>		
Honored Graduate, Peking University, P.R.China.	2006	
• Scholarships and Outstanding Student Award, Peking University, P.R.China.	2004-2006	

### **PRESENTATIONS**

- 1. Zhang, J., Ning, J., Huang, X., **Li, R.** (2023) On the Time-varying Predictive Performance of Longitudinal Biomarkers: Measure and Estimation [Invited topic contributed] at *JSM* 2023.
- 2. Zhang, C., Ning, J., Belle, S., Squires, R., Cai, J., **Li, R.** (2023) Assessing predictive discrimination performance of biomarkers in the presence of treatment-induced dependent censoring [Invited] at *Lifetime Data Science Conference* 2023.
- 3. Zhang, C., Ning, J., Belle, S., Squires, R., Cai, J., **Li, R.** (2021) Assessing the Predictive Performance of Biomarkers in the Presence of Competing Risks Due to Transplantation [Invited topic contributed] at *JSM* 2021.

- 4. **Li, R.** (2021) Crude and Net Measures of Predictive Performance for Risk Prediction with Competing Risks Data.[Invited] *Department of Biostatistics, Yale School of Public Health.*
- 5. **Li, R.** (2021) Crude and Net Measures of Predictive Performance for Risk Prediction with Competing Risks Data.[Invited] *Division of Biostatistics and Bioinformatics, Penn State University.*
- 6. **Li, R.** (2020) Conditional association and concordance for bivariate censored data [Invited], at *ICSA*, Houston, TX.
- 7. **Li, R.** (2020) Extensions of the C-statistic for assessing concordance and predictive discrimination, at Department of Biostatistics and Data Science, *UTHealth*, Houston.
- 8. **Li, R.** (2018) A novel adaptation of quantile regression framework for assessing the association and concordance between different biomedical outcomes given covariates [Invited], at *APHA*, San Diego.
- 9. **Li, R.**, Huang, X., and Cortes, J. (2017) Quantile residual life regression with longitudinal biomarker measurements for dynamic prediction [Invited topic contributed], at *JSM*, Baltimore, Maryland.
- 10. **Li, R.** (2017) Assessment of agreement for clinical and lab data: history and recent advances [Invited discussant], at *2017 ICSA*, Chicago.
- 11. **Li, R.** and Cheng, Y. (2017) Flexible association modelling and prediction with semi-competing risks data [Invited], at *2017 Conference on Lifetime Data Science*, Connecticut
- 12. **Li, R.**, Huang, X., and Cortes, J. (2017) Quantile residual life regression with longitudinal biomarker measurements for dynamic prediction [Invited], at *CCTS-BERD seminar*, UTHealth, Houston, Tx.
- 13. **Li, R.**, Huang, X., and Cortes, J. (2016) Quantile residual life regression with longitudinal biomarker measurements for dynamic prediction [Invited], at *ICSA*, Atlanta, GA.
- 14. **Li, R.**, Huang, X., and Cortes, J. (2016) Quantile residual life regression with longitudinal biomarker measurements for dynamic prediction [Invited], at *Department of Mathematics*, University of Houston.
- 15. **Li, R.**, Huang, X., and Cortes, J. (2016) Quantile residual life regression with longitudinal biomarker measurements for dynamic prediction [Invited poster], at *ENAR*, Austin, TX.
- 16. **Li, R.** and Peng, L. (2015) Assessing quantile prediction with censored quantile regression models [Invited], at *Houston Area Chapter of the American Statistical Association (HACASA)*, Houston, TX.
- 17. **Li, R.** and Peng, L. (2015) Assessing quantile prediction with censored quantile regression models [Invited], at *Joint Statistical Meetings*, Seattle.
- 18. **Li, R.**, Cheng, Y., Chen, Q., Fine, J. (2015) Quantile association with bivariate survival data [Invited], at *ICSA Applied Statistics Symposium, Fort Collins, Colorado*.
- 19. **Li, R.** and Peng, L. (2015) Assessing quantile prediction with censored quantile regression models [Invited], at *Division of Quantitative Sciences, MD Anderson Cancer Center?*.
- 20. **Li, R.** and Peng, L. (2014) Quantile Regression Adjusting for Dependent Censoring from Semi-Competing Risks [Invited], at *ICSA-KISS Applied Statistics Symposium*, *Portland*, *OR*.

- 21. **Li, R.**, Belle, S., Chen, L., Zhang, S., Squires, S. (2013) Heterogeneous clinical courses among PALF patients with an indeterminate diagnosis: a growth mixture model approach. [Invited] at *PALF steering committee meeting*.
- 22. **Li, R.**, Cheng, Y. and Fine, J.P. (2013) Quantile association regression models [Invited], at *Division of Biostatistics*, The University of Texas School of Public Health.
- 23. **Li, R.**, Cheng, Y. and Fine, J.P. (2013) Quantile association regression models [Invited], at *Statistical Modeling, Theory & Application Conference*, Shanghai, China.
- 24. **Li, R.** and Peng, L. (2013) Assessing quantile prediction with censored quantile regression models [Contributed], at *Joint Statistical Meetings*, Montreal, Canada.
- 25. **Li**, **R.** and Peng, L. (2013) Assessing quantile prediction with censored quantile regression models [Invited], at *IMS-China International Conference on Statistics and Probability*, Chengdu, China.
- 26. **Li, R.** and Peng, L. (2013) Assessing quantile prediction with censored quantile regression models [Invited], at *Frontiers in Applied and Computational Mathematics*, New Jersey Institute of Technology.
- 27. **Li, R.** and Peng, L. (2012) Subdistribution regression with left-truncated semi-competing risks data [Topic Contributed], at *ENAR*, Washington, DC.
- 28. **Li**, **R.** and Peng, L. (2011) [Invited] Quantile regression for semi-competing risks data, at *Department of Statistics*, University of Pittsburgh.
- 29. **Li, R.** and Peng, L. (2010). Quantile regression adjusting for dependent censoring [Contributed], at *Joint Statistical Meetings*, Vancouver, BC, Canada.
- 30. Peng, L., **Li, R.**, Guo, Y. and Manatunga, A.K. (2010). Assessing the "Broad Sense Agreement" between ordinal and continuous measurements [Contributed], at *ENAR*, New Orleans, LA.
- 31. **Li, R.** and Peng, L. (2009). Quantile regression with left-truncated semi-competing risks data [Contributed], at *Joint Statistical Meetings*, Washington, DC.
- 32. Hanfelt, J.J., **Li, R.**, Pan, Y., and Payment, P. (2009). Robust inference for sparse clustered count data [Contributed], at *ENAR*, San Antonio, TX.
- 33. **Li, R.**, Tsai, K. and Fang, L. (2008). Sensitivity analysis on an IVIVC PK/PD model, at *Merck Research Laboratories*, Upper Gwynedd, PA.