

## Tao Liu, Ph.D.

Associate Professor of Biostatistics  
Director, ARCH Data and Statistics Core  
Brown University

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Brown Data Science Initiative (DSI)  
Center for AIDS Research (CFAR)

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### PROFESSIONAL APPOINTMENTS

#### A. Current Academic Positions

##### **Associate Professor of Biostatistics**

Department of Biostatistics, Department of Biostatistics, Brown University.

##### **Director**

Brown ARCH Data and Research Methods Core

##### **Faculty Member**

Brown Center for Statistical Sciences.

Brown Data Science Initiative (Brown DSI).

Brown Alcohol Research Center on HIV.

Providence/Boston Center for AIDS Research (CFAR).

Advance-Clinical and Translational Research (Advance-CTR)

##### **Affiliated Faculty Member**

AMPATH Biostatistics and Data Program (AMPATH), Kenya-USA.

American College of Radiology Imaging Network (ACRIN).

#### B. Former Academic Appointments

##### **Assistant Professor of Biostatistics (2012 – 2015)**

Biostatistics Division, Department of Biostatistics, Brown University.

##### **Acting Director of the CFAR Data & Biostatistics Core (Jan. – Jun. 2010)**

The Providence/Boston Center for AIDS Research (CFAR).

##### **Assistant Professor of Community Health (2009 – 2012)**

Biostatistics Division, Department of Community Health, the Alpert Medical School of Brown University.

##### **Postdoctoral Research Associate (2006 – 2008)**

Biostatistics Division, the Alpert Medical School of Brown University.

##### **Graduate Teaching Assistant (2003 – 2006)**

Department of Biostatistics, Center for Clinical Epidemiology and Biostatistics (CCEB), the University of Pennsylvania.

**Graduate Research Assistant / Consultant** (2004 – 2005)

Department of Biostatistics, Center for Clinical Epidemiology and Biostatistics (CCEB), the University of Pennsylvania.

**Research Assistant / Graduate Instructor** (2001 – 2003)

Department of Statistics, Iowa State University.

**Graduate Research Assistant** (1999 – 2001)

Department of Civil Engineering, Iowa State University.

**C. Other Appointments****Research Fellow & Consultant**

Research Statistics Unit, GlaxoSmithKline (GSK) Corp, Collegeville, PA

**Summer Intern**

Department of Biostatistics, Amgen Incorporation, Thousand Oaks, CA

**EDUCATION**

2006	<b>Ph.D. Biostatistics</b>	<u>The University of Pennsylvania</u> , PA, US <i>Dissertation: Measuring sensitivity to Non-Ignorable censoring in nonparametric and semi-parametric survival modeling.</i>
2002	<b>M.S. Statistics</b>	<u>Iowa State University</u> , IA, US <i>Thesis: Improved Confidence Interval Estimation for Parameters in Nonlinear Models</i>
2002	<b>M.S. Civil Engineering</b>	<u>Iowa State University</u> , IA, US
1999	<b>B.E. Environmental Engineering</b>	<u>Tsinghua University</u> , Beijing, China

**PUBLICATIONS****A. Journals Articles (Peer-reviewed)**

1. **Liu T** & Hogan JW (2021). "Unifying IV and IPW approaches for inference of causal treatment effect and unmeasured confounding in observational studies." *Statistical Methods in Medical Research*. 30(3): 671-686. DOI: 10.1177/0962280220971835.
2. Wang R, Jiao Z, Yang L, Choi JW, Xiong Z, Halsey K, Tran TM, Pan I, Collins SA, Feng X, Wu J, Chang K, Shi LB, Yang S, Yu QZ, Liu J, Fu FX, Jiang XL, Wang DC, Zhu LP, Yi XP, Healey T, Zeng QH, **Liu T**, Hu PF, Huang RY, Li YH, Sebro RA, Zhang PL, Wang J, Atalay MK, Liao WH, Fan Y, & Bai H (2020). "Artificial intelligence for prediction of COVID-19 progression using CT imaging and clinical data". *European radiology*, 1-8.
3. Tang L, Liu S, Xiao Y, Tran TML, Choi JW, Wu J, Halsey K, Huang RY, Boxerman J, Patel SH, Kung D, Liu R, Feldman MD, Danoski DD, Liao W, Kasner SE, **Liu T**, Xiao B, Zhang PJ, Reznik M, Yang L, Bai HX (2021). "Encephalopathy at admission predicts adverse outcomes in patients with SARS-CoV-2 infection". *CNS Neuroscience & Therapeutics*. Accepted.
4. Abel L, Perera SM, Yam D, Garbern S, Kennedy SB, Massaquoi M, Sahr Foday, Woldemichael, D, **Liu T**, Levein A, and Aluisio A (2021) "Association between oral antimalarial medication administration and mortality among patients with Ebola virus disease: a multisite cohort study." *BMC Infectious Diseases*. Accepted.

5. Lu X, Pan G, Wang X, Xia W, Zhao X, He Q, Zhang H, Wang J, Sun Y, **Liu T**, Sun S, Yang C, Zaller N, Zhang Z, Don O (2021) "User Preferences for a mHealth approach to support HIV self-testing and linkage to HIV prevention or care services for MSM in China." *AIDS Education and Prevention*, in press.
6. Wentz AE, Wang RC, Marshall BDL, Shireman TI, **Liu T**, Merchant RC (2021). "Opioid analgesics and persistent pain after an acute pain emergency department visit: Evidence from a cohort of suspected urolithiasis patients." *Journal of Emergency Medicine*. In press.
7. Roy A, Hoge EA, Abrante P, Druker S, **Liu T**, Brewer J (2021). "Clinical efficacy and psychological mechanisms of an app-based digital therapeutic for generalized anxiety disorder: a randomized controlled trial". *Journal of Medical Internet Research*. Accepted.
8. Noksa A\*, **Liu T\***, Kuo I, Bazerman L, Kurth A, Kantor R, Beckwith C (2021). "Validity of self-reported HCV status among justice-involved persons living with HIV". *Journal of Correctional Health Care* 27(3):167-171. (Co-first author)
9. Marks SJ, Merchant RC, Clark MA, **Liu T**, Rosenberger JG, Bauermeister JA, and Mayer KH (2021). "Barriers to HIV testing and opportunities for expansion using home-based HIV self-testing: results of a national study of high-risk young men who have sex with men." *SAGE Open*. (in press) (DOI: 10.1177/21582440211016835/ ID: SO-19-1329.R2)
10. Beckwith CG, Min S, Manne A, Novitsky V, Howison M, **Liu T**, Kuo I, Kurth A, Bazerman L, Agopian A, Kantor R (2021). "HIV drug resistance and transmission networks among a justice-involved population at the time of community re-entry in Washington D.C." *AIDS Research and Human Retroviruses*. Accepted.
11. Jiao Z, Choi JW, Halsey K, My T, Hsieh B, Wang D, Eweje F, Wang R, Chang K, Wu, Scott J, Yi TY, Delworth AT, **Liu T**, Healey TT, Lu S, Wang J, Feng X, Atalay MK, Feldman LY, J P, Liao W, Fan Y, Bai HX (2021). "Prognostication of patients with COVID-19 using artificial intelligence based on chest x-rays and clinical data: a retrospective study." *The Lancet: Digital Health*. Accepted.
12. Bennett CL, Marks SJ, **Liu T**, Clark MA, Carey MP, Merchant RC (2020). "Factors associated with lack of HIV testing among Latino immigrant and black patients at 4 geographically and demographically diverse emergency departments." *Journal of the International Association of Providers of AIDS Care (JIAPAC)*. Nov 3;19:2325958220970827.
13. Stillman AE, Gatsonis C, Lima J, **Liu T**, Snyder B, Cormack JA, Malholtra V, Schnall MD, Udelson JE, Hoffmann U, Woodard PK (2020). "Coronary CT Angiography Compared with SPECT MPI as a Guide to Optimal Medical Therapy in Patients Presenting with Symptoms of Stable Angina Pectoris: The RESCUE Trial A Randomized Clinical Trial". *JAMA*. 9(24), e017993.
14. Wang R, Cai Y, Lee IK, Hu R, Purkayastha S, Pan I, Yi T, Tran TM, Lu S, **Liu T**, Chang K, Raymong YH, Bai H (2020). "Evaluation of a convolutional neural network for ovarian tumor differentiation based on magnetic resonance imaging." *European Radiology*. 31(7):4960–4971.
15. Papas R, Gakinya B, Mwaniki M, Lee H, Keter A, Martino S, Klein D, **Liu T**, Loxley M, Sidle J, Schlaudt K, Nafula T, Omodi V, Baliddawa J, Kinyanjui D, Maisto S (2020). "A randomized clinical trial of a group cognitive-behavioral therapy to reduce alcohol use among human immunodeficiency virus-infected out-patients in western Kenya". *Addiction*, 116(2):305-18.
16. Hansen B, **Liu T**, Bazerman L, Drainoni ML, Gillani FS, Cachay E, Christopoulos K, Crane H, Kitahata M, Mayer KH, Moore R, Beckwith, C. (2020). "Risk for viral rebound in the era of U=U; A CNICS analysis." *Open Forum Infectious Diseases*. 7(S1): S525-S526
17. Orang'o EO, Ermel A, **Liu T**, Omodi V, Emont JP, Tong Y, Itsura PM, Tonui PK, Maine T, Ong'echa JM, Muthoka K, Kiptoo S, Moormann A, Hogan J, Loehrer PJ, Brown D, Cu-Uvin S (2020). "Detection of HPV types among HIV-infected and HIV-uninfected women undergoing cryotherapy or loop electrosurgical excision procedure". *International Journal of Gynecology and Obstetrics*. 151(2): 279-286.

18. Wentz AE, Wang RC, Marshall BL, Shireman TI, **Liu T**#, Merchant RC# (2020). "Variation in opioid analgesia administration and discharge prescribing for emergency department patients with suspected urolithiasis." *The American Journal of Emergency Medicine*. 38 (10): 2119-2124.
19. Merchant RC, Marks SJ, Clark MA, Carey MP, **Liu T** (2020). "Retention of knowledge about HIV/AIDS and HIV testing among adult emergency department patients: Implications for HIV testing and prevention." *Annals of Emergency Medicine*. Oct 1;76(4):S9.
20. Brewer JA, Roy A, Deluty A, **Liu T**, Hoge EA (2020). "Can mindfulness mechanistically target worry to improve sleep disturbances? Theory and study protocol for app-based anxiety program." *Health Psychology*, 39(9): 776-784.
21. Wentz AE, Wang RC, Marshall BL, Shireman TI, **Liu T**, Merchant RC (2020). "Variation in opioid analgesia administration and discharge prescribing for emergency department patients with suspected urolithiasis." *The American Journal of Emergency Medicine*. 38 (10): 2119-2124.
22. Liu Z, Wu Q, Zou Z, Yao Y, Cai J **Liu T**, Yang Z, Liu Q (2020). "Investigation of a family cluster outbreak of COVID-19 indicates the necessity of CT screening for asymptomatic family members in close contact with confirmed patients". *Journal of Thoracic Disease*, 12(7): 3673–3681.
23. Merchant RC, Marks SJ, Clark MA, Carey MP, and **Liu T** (2020). "Limited ability of three health literacy screening items to identify adult English- and Spanish-speaking emergency department patients with lower health literacy." *Ann Emerg Med* 5(6):691-703.
24. Bacic J, **Liu T**, Thompson H, Boorjian SA, Leibovich BC, Golijanin D and Gershman B (2020). "Emulating target clinical trials of radical nephrectomy with or without lymph node dissection for renal cell carcinoma". *Urology*, 140:98-106.
25. Mehta N, Orang'o O, Itsura1 P, Tonui1 P, Bussmann H, Bogers JP, **Liu T**#, Cu-Uvin S# (2020). "Loop Electrosurgical Excision Procedure treats CIN 2/3 among HIV- and HIV+ women in Kenya". *Journal of Lower Genital Tract Disease*. 24(1):21-26. PMID: 31860571.
26. Aluisio AR, Perera SM, Yam D, Garbern SC, Peters JL, Abel L, Cho DK, Woldemichael D, Kennedy SB, Massaquoi M, Sahr F, **Liu T**, Levine AC (2020). "Association between treatment with oral third-generation cephalosporin antibiotics and mortality outcomes in Ebola virus disease: A multinational retrospective cohort study". *Tropical Medicine & International Health*, 25(4): 443-441.
27. Merchant RC, Marks SJ, Clark MA, Carey MP, and **Liu T** (2020). "Comparison of a video to a pictorial brochure in improving HIV/AIDS and HIV testing knowledge and increasing HIV testing motivation and behavioral skills among adult emergency department patients". *Journal of American College of Emergency Physicians*, 1(3): 202-213.
28. Bennett CL, Marks SJ, Rosenberger JG, Bauermeister JA, Clark MA, **Liu T**, Mayer KH, Merchant RC. (2020). "Factors Associated with the Discordance between Perception of Being HIV Infected and HIV Sexual Risk Taking among Social Media–Using Black, Hispanic, and White Young Men Who Have Sex with Men." *Journal of the International Association of Providers of AIDS Care (JIAPAC)* 19 (2020): 2325958220919260.
29. Yam D, Aluisio AR, Perera SM, Peters JL, Cho DK, Kennedy SB, Massaquoi M, Sahr F, Smit MA, Locks L, **Liu T**, Levine AC (2020). "Association Between Multivitamin Supplementation and Mortality Among Patients with Ebola Virus Disease: An International Multisite Cohort Study." *African Journal of Emergency Medicine*. 10(1): 23-29.
30. Kahler CW, Surace A, Durst A, Pantalone DW, Mastroleo NR, Miguez MJ, Bueno D, **Liu T**, Monti PM, & Mayer KH (2020). "Telehealth interventions to reduce alcohol use in men with HIV who have sex with men: Protocol for a factorial randomized controlled trial." *Contemporary Clinical Trials Communications*. 16: e100475.
31. Aluisio AR, Yam D, Peters JL, Cho DK, Perera SM, Kennedy SB, Massaquoi M, Sahr F, Smit MA, Locks L, **Liu T**, Levine AC (2020). "Impact of Intravenous Fluid Therapy on Survival Among Patients

- with Ebola Virus Disease: An International Multisite Retrospective Cohort Study.” *Clinical Infectious Diseases*, 70(6):1038-1047. PMID: 31050703.
32. Garbern SC, Yam D, Aluisio AR, Cho DK, Kennedy SB, Massaquoi M, Sahr F, Perera SM, Levine AC, **Liu T** (2019). “Effect of mass artesunate-amodioquine distribution on mortality of patients with Ebola virus disease during west African outbreak”. *Open Forum Infectious Diseases*. 6(7), PMID: 31281856 PMCID: PMC6602760.
  33. Aluisio AR, Perera SM, Yam D, Garbern S, Peters JL, Abel L, Cho DK, Kennedy SB, Massaquoi M, Sahr F, Brinkmann S, Locks L, **Liu T**, Levine AC (2019). “Vitamin A supplementation was associated with reduced mortality in patients with Ebola virus disease during the west Africa outbreak”. *The Journal of Nutrition*. 149(10): 1757-1765. PMCID: PMC6768816.
  34. Holland S, DeLong A, **Liu T**, Makaretz A, Coetzer M, Ledingham L, Xu Y, Sam S, Sagoe K, Caliendo A, Daniels M, Hogan JW, Kantor R. (2019) "Laboratory evaluation of HIV-1 viral load pooling with marker-assisted deconvolution." *Open Forum Infectious Diseases*. Oct, 6(2): S868-S868).
  35. Wentz AE, Merchant RC, Clark MA, **Liu T**, Rosenberger JG, Bauermeister J, Mayer KH (2019). “Blood donation, sexual practices, and self-perceived risk for HIV in the United States among young adult men who have sex with men”. *Public Health Reports*. 134(1):36-46.
  36. Wray TB, Chan PA, Kahler CW, **Liu T**, and Mayer KH (2019). “Vulnerable periods: characterizing patterns of sexual risk and substance use during lapses in adherence to HIV pre-exposure prophylaxis among men who have sex with men”. *JAIDS*. 80(3):276-283.
  37. Tovar A, Vaughn A, Fisher JO, Benjamin-Neelon S, Burney R, Webster K, **Liu T**, Ostbye T, and Ward D (2019). “Modifying the environmental policy assessment and observation tool to better capture feeding practices of family child care home providers”. *Public Health Nutrition*, 22(2):223-234.
  38. Kuo I, **Liu T**, Patrick R, Trezza C, Bazerman L, Castonguay B, Kurth A, and Beckwith C (2019). “Use of an mHealth intervention on engagement in HIV community-based care among recently released incarcerated persons in Washington, DC.” *AIDS and Behavior*, 23(4):1016-1031.
  39. Xu Y\*, **Liu T**, Daniels MJ, Kantor R, Mwangi A, Hogan JW. (2019). “Classification using ensemble learning under weighted misclassification loss.” *Statistics in Medicine*. 38(11):2002–2012. (**American Statistical Association: Best Paper Award on “Risk Modeling”**).
  40. Merchant RC, **Liu T**, Clark MA, and Carey MP (2018). “Facilitating HIV/AIDS and HIV testing literacy for emergency department patients: a randomized, controlled, trial”. *BMC Emergency Medicine*. 18:21. PMID: 29986662; PubMedPMCID: PMC6038177.
  41. Yellin H, Beckwith C, Kurth A, **Liu T**, Castonguay B, Patrick R, Trezza C, Bazerman L, and Kuo I (2018). “Syndemic effect of mental illness and substance use on viral suppression among recently-incarcerated, HIV-infected individuals in the CARE+ Corrections study.” *AIDS Care*, 1-5. [PMID: 29607658]
  42. Merchant RC, Zhang Z\*, Zhang Z, **Liu T** and Baird JR. (2018). “Lack of efficacy in a randomized trial of a brief intervention to reduce drug use and increase drug treatment services utilization among adult emergency department patients over a twelve-month period”. *Emergency Medicine Journal*. 35(5):282-288. [PMID: 29437758]
  43. Kahler CW, Pantalone, DW, Mastroleo, NR, **Liu T**, Bove G, Ramratnam B, Monti P, and Mayer KH (2018). “Motivational interviewing with personalized feedback to reduce alcohol use in HIV-infected men who have sex with men: A randomized controlled trial.” *Journal of Consulting and Clinical Psychology*. 86(6):645-656.
  44. Merchant RC, Clark MA, **Liu T**, Romanoff J, Rosenberger JG, Bauermeister J, and Mayer KH (2018). “Comparison of home-based oral fluid rapid HIV self-testing vs mail-in blood sample collection or medical/community HIV testing by young adult black, Hispanic, and white MSM: results from a randomized trial”. *AIDS and Behavior*. 22(1): 337-346.

45. Alexovitz KA, Merchant RC, Clark M, **Liu T**, Rosenberger JG, Bauermeister J, and Mayer KH (2018). “Discordancy of voluntary HIV testing with HIV sexual risk-taking and self-perceived HIV infection risk among social-media using black, Hispanic, and white young-men-who-have-sex-with-men (YMSM).” *AIDS and Care*. 30(1): 81-85.
46. **Liu T**, Hogan JW, Daniels, MJ, Coetzer M, Xu Y, Bove J, DeLong AK, Ledingham L, Orido M, Diero L, and Kantor R. (2017). “Improved HIV-1 Viral Load Monitoring Capacity using Pooled Testing with Marker-Assisted Deconvolution.” *Journal of AIDS*. 75(5): 580—587. PMID: 28489730; PMCID: PMC5503773.
47. Mark SJ, Merchant RC, Clark MA, **Liu T**, Rosenberger JG, Bauermeister J, and Mayer KH (2017). “Potential healthcare insurance and provider barriers to PrEP utilization among black, Hispanic and white YMSM”. *AIDS Patient Care and STDs*, 31(11):470-478.
48. Merchant RC, Romanoff J, Clark MA, **Liu T**, Rosenberger JG, Bauermeister J, Bauermeister J, and Mayer KH (2017). “Variations in recruitment yield and characteristics of participants recruited across diverse Internet platforms in an HIV testing study of young adult men-who-have-sex-with-men (YMSM)”. *American Journal of Men’s Health*. 11(5):1342—1357.
49. Merchant RC, Romanoff J, Zhang Z, **Liu T**, and Baird JR (2017). “Impact of a brief intervention on reducing alcohol use and increasing alcohol treatment services utilization among alcohol- and drug-using adult emergency department patients”. *Alcohol*. 65:71-80.
50. Beckwith C, Castonguay B, Trezza C, Bazerman, L, Patrick R, Cates A, Kurth A, **Liu T**, Peterson J, and Kuo I (2017). “Gender differences in HIV care among criminal justice-involved persons: Baseline data from the CARE+ Corrections randomized study”. *PLoS One*; 12(1): e0169078. [PMID: 28081178][PMCID: PMC5231337]
51. Kahler, C, **Liu T**, Cioe, P, Bryant, V, Pinkston, M, Kojic, E, Onen, N, Baker, J, Hammer, J, Brook, J, and Patel, P. (2017). “Direct and indirect effects of heavy alcohol use on HIV and non-HIV outcomes in a longitudinal study of HIV patients receiving ART.” *AIDS and Behavior*. 21(7): 1825-1835. [PMID: 27392417][PMCID: PMC5219952]
52. Merchant RC, Clark MA, **Liu T**, Rosenberger J, Romanoff J, Bauermeister J, and Mayer K. (2017). “Preferences for home-based oral fluid rapid HIV self-testing among social media-using young black, Hispanic, and white men-who-have-sex-with-men (YMSM): Implications for future interventions”. *Public Health*. 145:7—19. [PMID: 28359394][PMCID: PMC5380143].
53. Orango O, **Liu T**, Christoffersen-Deb A, Itsura P, Mabeya H, Washington S, Cu-Uvin S, and Rositch AF (2016). “Use of VIA, Pap smear, or HR-HPV testing in women living with HIV/AIDS for post-treatment screening: Same tests, different priorities.” *AIDS*. 31(2):233—240. [PMID: 27831951]
54. Shao W\*, Guan W\*, Clark MA, **Liu T**, Santelices, C, Cortes, DE, and Merchant, RC (2016). “Does a video improve knowledge of HIV/AIDS and HIV testing among a global internet audience?” *Journal of the International Association of Providers of AIDS Care*. 15(5): 392—399. [PMID: 26518589][PMCID: PMC5012116]
55. Orango O, Chau D, **Liu T**, Itsura P, Tonui P, Cu-Uvin S (2016). “Post-LEEP surveillance in HIV-positive and HIV-negative women in western Kenya”. *International Journal of Gynecological Cancer*. 26:309-309.
56. Merchant RC, Baird JR, and **Liu T** (2016). “How do one-question screening strategies compare to a more comprehensive substance use assessment in identifying adult emergency department patients who might need an intervention?” *Academic Emergency Medicine*. 23:201.
57. Merchant RC, Zhang Z, **Liu T**, and Baird JR (2016). “Does a brief intervention reduce drug use and increase drug treatment utilization among adult emergency department patients over a one-year period?” *Academic Emergency Medicine*. 23:42-42. [PMID: 26375468][PMCID: PMC4876812]

58. Stillman AE, Gatsonis C, Lima JA, Black WC, Cormack J, Gareen I, Hoffmann U, **Liu T**, Mavromatic K, Schnall MD, Udelson JE, and Wood P (2016). "Rationale and design of the RESCUE (Randomized Evaluation of Patients with Stable Angina Comparing Utilization of Noninvasive Examinations) trial." *The American Heart Journal*. 179:19–28.
59. Merchant RC, **Liu T**, and Baird JR (2016). "Variations in the estimates of substance use and need for interventions among adult emergency department patients based on different screening strategies using the ASSIST". *Western Journal of Emergency Medicine*; 17(3):302–314.
60. Merchant RC, Baird JR, and **Liu T** (2015). "Short-term efficacy of a brief intervention to reduce drug misuse and increase drug treatment utilization among adult emergency department patients." *Academic Emergency Medicine*. 22(10): 1172–1180. [PMID: 26375468].
61. Merchant RC, DeLong AK, **Liu T**, and Baird JB (2015). "Factors influencing uptake of rapid HIV and Hepatitis C screening among drug misusing adult emergency department patients: implications for future HIV/HCV screening interventions." *AIDS and Behavior*. 19(11): 2025–2035. [PMID: 26036465] [PMCID: PMC4600425]
62. Guan W\*, **Liu T**, Baird JR, and Merchant RC (2015). "Evaluation of a brief intervention to reduce the negative consequences of drug misuse among adult emergency department patients." *Drug and Alcohol Dependence*, 157:44–53. (\* student advised.)
63. Bernardino VL, Baird JR, **Liu T**, and Merchant RC (2015). "Comparison of substance use prevalence among Rhode Island and The Miriam Hospital Emergency Department patients to state and national general population prevalence estimates." *Rhode Island Medical Journal*. (In press).
64. Beaudoin F\*, **Liu T**, Baird JR, and Merchant RC (2015). "Sex differences in substance use among adult emergency department patients: prevalence, severity, and need for intervention." *Academic Emergency Medicine*. 22(11):1307-15. (\*mentored junior clinical investigator).
65. Shao W\*, Guan W\*, Clark MA, **Liu T**, Santelices C, Cortes DE, and Merchant RC (2015). "Variations in recruitment yield, costs, and speed and participant diversity across internet platforms in a global study of English- or Spanish-speaking Internet users." *Digital Culture & Education*, 7(1), 40-86. (\*students advised)
66. Merchant RC, Clark MA, Santelices CA, **Liu T**, and Cortes D. (2015). "Efficacy of an HIV/AIDS and HIV testing video for Spanish-speaking Latinos in healthcare and non-healthcare settings". *AIDS and Behavior*. 19(3): 523–535. [PMID: 25179540].
67. Rana Aadia\*, **Liu T**, Gillani FS, Reece R, Kojic EM, Zlotnick C, and Wilson IB (2015) "Multiple gaps in care common among newly diagnosed HIV patients." *AIDS Care*. 27(6): 679–687. [PMCID: PMC25634492] [PMCID: PMC4366312]. (\*Mentored junior investigator).
68. Tai M\*, **Liu T**, and Merchant RC. (2015). "Hospitalizations in the United States among HIV-infected individuals in short-stay hospitals, 1982-2010." *Journal of the International Association of Providers of AIDS Care*. 14(5):408-414. (\*Advised student).
69. Merchant R, Baird J, **Liu T**, Taylor L, Montague B, and Nirenberg T. (2014) "Brief intervention to increase emergency department uptake of combined rapid HIV and Hepatitis C screening among a drug misusing population." *Academic Emergency Medicine*. 21:752–767. [PMID: 25125271] [PMCID: PMC4135533]
70. Merchant RC, Baird JR, **Liu T**, and Taylor LE. (2014). "HCV among the Miriam Hospital and Rhode Island Hospital adult emergency department patients." *Rhode Island Medical Journal*, 97(4): 35–39. [PMID: 24983020].
71. Federov V and **Liu T**\* (2014). "Randomized discontinuation trials with binary outcomes." *The Journal of Statistical Theory and Practice*, 8:30–45. (\*Authorship in alphabetical order)

72. **Liu T**, Hogan JW, Wang L, Zhang S and Kantor R (2013). "Optimal Allocation of Gold Standard Testing under Constrained Availability: Application to Assessment of HIV Treatment Failure." *Journal of the American Statistical Association (JASA)*, 108 (504): 1173–1188. [PMCID: PMC3963362].
73. Trillo A, Merchant RC, Baird J, Ladd G, **Liu T**, and Nirenberg T. (2013). "Interrelationship of alcohol misuse, HIV sexual risk and HIV screening uptake among emergency department patients." *BMC Emergency Medicine*, 13:9-22. [PMID: 23721108] [PMCID: PMC3686630]
74. Xu H\*, Short SE, and **Liu T** (2013). "Dynamic relations between fast-food restaurant and body weight status: A longitudinal and multilevel analysis of Chinese adults." *Journal of Epidemiology & Community Health*, 67:271-279. [PMID: 22923769]. (\*Advised student; **The 2009 Brown Global Health Award**).
75. **Liu T** and Heitjan DF (2012). "Sensitivity of the discrete-time Kaplan-Meier estimate to non-ignorable censoring: Application in a clinical trial". *Statistics in Medicine*, 31: 2998-3010. [PMID: 22806989]. (**ENAR Best Paper Award**)
76. Trillo A, Merchant RC, Baird JR, **Liu T**, and Nirenberg TD (2012). "Sex differences in alcohol misuse and estimated blood alcohol concentrations among emergency department patients: Implications for brief interventions." *Academic Emergency Medicine*, 19(8):924-33. [PMID: 22849748] [PMCID: PMC3424395].
77. Wei F, Zhou J, Wei X, Zhang J, Fleming BC, Terek R, Pei M, Chen Q, **Liu T**, and Wei L (2012). "Activation of Indian Hedgehog promotes chondrocyte hypertrophy and upregulation of MMP-13 in human osteoarthritic cartilage." *Osteoarthritis and Cartilage*, 20(7):755-63. [PMID: 22469853] [PMCID: PMC3374008].
78. Anderson A, Firnhaber C, **Liu T**, Swarts A, Siminya M and Cu-Uvin S (2012). "Effect of trichomoniasis therapy on genital HIV viral burden among African women." *Sexually Transmitted Diseases*. 39(8):638-642. [PMID: 22797689] [PMCID: PMC3398383].
79. Loucks EB, Gilman SE, Rogers M, **Liu T**, Kawachi I, Martins L, Kubzansky L, Buka SL (2012). "Education and coronary heart disease risk associations may be affected by early life common prior causes: A propensity matching analysis." *Annals of Epidemiology*, 22(4):221-232. [PMID: 22463841] [PMCID: PMC3327475].
80. Merchant RC, Waxman MJ, Maher JG, Clark MA, Celada MT, **Liu T**, Simmons EM, Beckwith CG and Mayer KH (2012). "Patient and clinician ethical perspectives on the 2006 Centers for Disease Control and Prevention HIV testing methods." *Public Health Reports*, 127(3):318- 329. [PMID: 22547863] [PMCID: PMC3314076].
81. Rosen (Asnis)\* LM, **Liu T**, and Merchant RC (2012). "Efficiency of ICD-9 billing code searches to identify blood or body fluid exposure emergency department visits through a state-wide multi-center database." *Infection Control and Hospital Epidemiology*. 33(6): 581-588. [PMID: 22561713 ] (\*Advised graduate student)
82. Saffarini CM, Heger NE, Yamasaki H, **Liu T**, Hall SJ, and Boekelheide K. (2012). "Induction and persistence of abnormal testicular cells following gestational exposure to di-(n-butyl) phthalate in p53-null mice." *The Journal of Andrology*, 33(3):505-13. [PMID: 21868749].
83. Mabeya H, Khozaim K, **Liu T**, Orango O, Chumba D, Pisharodi L, and Cu-Uvin S (2011). "Comparison of conventional cervical cytology versus visual inspection with acetic acid (VIA) among HIV-infected women in western Kenya." *Journal of Lower Genital Tract Disease*. 16(2): 92. [PMID: 22126834] [PMCID: PMC3289722].
84. Merchant RC, DePalo DM, **Liu T**, Rich JD, and Stein MD (2010). "Developing a system to predict laboratory-confirmed chlamydial and/or gonococcal urethritis in adult male emergency department patients." *Postgraduate Medicine*. 22(1): 52–60. [PMID: 20107289] [PMCID: PMC3021915].

85. Beckwith CG, **Liu T**, Bazerman LB, DeLong AK, Desjardins SF, Poshkus M, Flanigan TP (2010). "HIV risk behavior pre- and post-HIV testing in jail: A pilot study." *Journal of Acquired Immune Deficiency Syndromes*, 53(4): 485–90. [PMID: 20035232] [PMCID: PMC2837107].
86. Merchant RC, Lau TS, **Liu T**, Mayer KH, and Becker BM (2009). "Adult sexual assault evaluations at Rhode Island emergency departments, 1995-2001." *Journal of Urban Health*, 86(1): 43–53. [PMID: 18797994] [PMCID: PMC2629515].
87. Phelan S, **Liu T**, Gorin A, Lowe M, Hogan J, Fava J, Wing R (2009). "What distinguishes long-term weight loss maintainers from the treatment-seeking obese? Analysis of environmental, behavioral, and psychosocial variables in diverse patient populations." *Annals of Behavioral Medicine*, 38: 94–104. [PMID: 19847584]
88. Moreira C, Venkatesh KK, DeLong AK, **Liu T**, Kurpewski J, Ingersoll J, Caliendo AM, Cu-Uvin S. (2009). "Effect of treatment of asymptomatic bacterial vaginosis on HIV-1 shedding in the genital tract among women on antiretroviral therapy: Pilot study." *Clinical Infectious Diseases*, 49: 991–992. [PMID: 19694541] [PMCID: PMC2730467].
89. Hogan JW and **Liu T** (2008). "Mediation analysis for intervention trial: Objectives, models and inference." *Health Services and Outcomes Research Method*, 8: 77-79.
90. Anderson BL, Wang CC, **Liu T**, DeLong AK, Kojic EM, Kurpewski J, Ingersoll J, Mayer K, Caliendo A, and Cu-Uvin S. (2008). "Genital tract leukocytes and shedding of genital HIV-1 RNA." *Clinical Infectious Diseases*, 47(9): 1216–1221. [PMID: 18808359] [PMCID: PMC2714169].
91. Merchant RC, Chee KJ, **Liu T**, Mayer KH, and Becker BM (2008). "Incidence of visits for health care worker blood and body fluid exposures and HIV post-exposure prophylaxis provision at Rhode Island Emergency Departments." *Journal of AIDS*, 47: 358–368. [PMID: 18176321] [PMCID: PMC3180865].
92. Sung S and **Liu T** (2003). "Ammonia inhibition on thermophilic methanogens." *Chemosphere*, 53(1):43-52. [PMID: 12892665].
93. **Liu T** and Sung S (2002). "Ammonia inhibition on thermophilic aceticlastic methanogens." *Water Science and Technology*, 45(10):113–120. [PMID: 12188530].
94. **Liu T** and Sung S (2001). "Effect of ammonia inhibition in thermophilic anaerobic process." *Proceedings of the Water Environment Federation*, 2001(1): 1292-1306.

### **Under review**

95. Walek KW, Stefan S, Lee JH, Puttigampala P, Kim AH, Park SW, Marchand PJ, Lesage F, **Liu T**, Huang A, Boas DA, Moore C, Lee J (2021). "Near-lifespan longitudinal tracking of cortical vascular structure and function in age-related disease model mice"
96. Giovenco D, Pettifor A, Bekker LG, Filiatreau LM, **Liu T**, Akande M, Gill K, Atujuna M, Stein DC, Kuo C (2021). "Understanding oral PREP interest among South African adolescents: The role of perceived parental support and PREP stigma". Submitted.
97. Orang'o OE, Bocage AE, **Liu T**, Itsura PM, Tonui PK, Kaptan K, Stephen K, Caliendo A, Soya S, Feller E, Cu-Uvin S (2021). "HIV-1 RNA genital tract shedding after cryotherapy for VIA-positive cervical lesions in western Kenya". Submitted.
98. Khalife S, Jenkins HE, Dolynska M, Terleieva I, **Liu T**, Rybak NR, Carter J, Horsburgh CR, Chiang SS (2021). "Incidence and mortality of extrapulmonary tuberculosis in Ukraine". Submitted.
99. "An automated pipeline for rapid triage of COVID-19 patients using artificial intelligence based on chest radiographs and clinical data." Under Review. Nature: Digital Medicine.
100. Gao M, Roy A, Deluty A, Sharkey KM, Hoge EA, **Liu T**, & Brewer JA (2021+). "Targeting anxiety to improve sleep: changes in worry mediate effects of app-based mindfulness training on sleep disturbances". Under review.

101. **Liu T**, Hogan JW, Su W, Xu Y, Daniels MJ, and Kantor R (2021+). "Informed pooled testing with quantitative assays." Under review. <https://arxiv.org/abs/2011.00404>
102. Xu Y\*, Hogan J, Su W, and **Liu T** (2021+). "Optimal allocation of gold-standard test under constrained availability using GST package". Under review.
103. Wentz A\*, **Liu T**, Merchant RC (2021+). "Predictors of opioid analgesia administration and discharge prescribing in ED patients with suspected urolithiasis". Under review.
104. Holland SD, DeLong AK, **Liu T**, Makaretz A, Coetzer M, Ledingham L, Xu Y, Sam S, Sagoe S, Caliendo A, Daniels M, Hogan J, and Kantor R (2020). "HIV-1 viral load monitoring using pooled testing with marker-assisted deconvolution". In preparation.
105. Wang R, et al, **Liu T**, Bai H (2020). "Evaluation of an AI system for Ovarian Tumor Differentiation on Routine Magnetic Resonance Imaging". *Cancer Research*. Under review.
106. Kim C, Choi JW, Jiao Z, Wang D, Wu J, Halsey K, Eweje F, My T, Hsieh MB, Yi T, Delworth A, Chang L, Wang R, Hu MM, Chang K, Yang F, Singh R, Ou J, Huang R, Feng C, Feldman M, **Liu T**, Lu S, Feng X, Sebro R, Atalay M, Liao W, Fan Y, Bai HX (2020). "Implementation of artificial intelligence for rapid diagnosis of COVID-19 on chest radiographs." *Nature Communication*. Under review.
107. Marks SJ, Merchant RC, Clark MA, **Liu T**, Rosenberger JG, Bauermeister J and Mayer KH (2020). "A national study of HIV testing in higher risk young adult men who have sex with men: barriers to testing and opportunities for expansion using home testing". Under review.
108. Marks SJ, Merchant RC, Clark MA, **Liu T**, Rosenberger JG, Bauermeister J, and Mayer K (2020). "HIV Testing in Young Adult Men Who Have Sex with Men: Challenges and Opportunities for Expansion". *Sexual Health*. Under review.

### **In preparation**

109. **Liu T**, Hansen B, Bazerman L, Drainoni M, Gillani F, Cachay E, Chrisopoulos K, Crane H, Kitihata M, Mayer K, Moore, R, Napravnik S, Rana A, Rodriguez B, Beckwith CG (2020). "Risk for viral rebound in the era of U=U: A national multi-center study".
110. **Liu T**, Wang Y, Su W (2020). "Local sensitivity assessment of discrete-time Cox regression to nonignorable censoring"
111. Abel L, Perera SM, Yam D, Garbern S, Kennedy SB, Massaquoi M, Sahr F, **Liu T**, Levine AC, Aluisio AR (2020). "Impacts of oral antimalarial medications on mortality among patients with Ebola virus disease: a multisite cohort study".
112. Kim CK, et al. **Liu T**, HX Bai (2020). "Implementation of artificial intelligence for rapid diagnosis of COVID-19 on chest radiographs".
113. Ermel A, Tong Y, Ermel A, Titus M, **Liu T**, Wong N, Ong'echa J, Mothuka K, Stephens K, Moormann A, Hogan J, Mwangi A, Loehrer P, Orang'o O, Brown D (2020). "Effects of Antiretroviral therapy on HPV detection, HPV persistence, and cervical dysplasia in HIV-infected Kenyan women".
114. Ermel A, Cu-Uvin S, Orang'o O, Tong Y, **Liu T**, Titus M, Ong'echa J, Muthoka K, Kiptoo S, Moormann A, Itsura P, Hogan J, Loehrer P, and Brown D (2020). "Comparison of women and HPV data from Projects 1 and 2".
115. Shih S, Gareen IF, Greco EM, Sicks JD, **Liu T**, Gatsonis C (2020). "Health Care Utilization Following an Initial Screening Test in the National Lung Screening Trial".

### **B. Book**

116. Eltorai A, **Liu T**, and Chant R (2001). *Designing and Conducting Research in Translational Medicine: Interventional Radiology*. Elsevier. Under contract.

### **C. Book Chapters**

117. Fedorov VV and **Liu T** (2007). "Enrichment Design." *Encyclopedia of Clinical Trials*. John Wiley & Son Press.
118. Shao W, Guan W, Clark MA, **Liu T**, Santelices C, Cortés DE, and Merchant RC. (2015). "Variations in recruitment yield, costs, speed and participant diversity across Internet platforms in a global study examining the efficacy of an HIV/AIDS and HIV testing animated and live-action video among English- or Spanish-speaking Internet or social media users" (Chapter 11: 186-210). *Transforming HIV prevention and care for marginalised populations: Using information and communication technologies (ICTs) in community-based and led approaches*. Walsh CS, editor. Creative Commons Attribution.

#### **D. Non-Refereed Articles**

119. **Liu T**, DeLong A, and Blossom B (2009). "Challenge to IDSA recommendations for late neurologic Lyme disease treatment and post Lyme syndrome: A statistical review of NIH-funded treatment studies." The International Lyme And Associated Diseases Society (IDSA) Lyme Panel Review Hearing.
120. Fedorov, V. V. and **Liu T\*** (2005). "Randomized discontinuation trials: design and efficiency." Glaxo-SmithKline Biomedical Data Science Technical Report, 3. (\*Authorship in Alphabetical order).

#### **E. Conference Presentations / Invited Lectures.**

121. Liu T (2021). "Informed LASSO methods". (Invited Presentation).
122. Qu K, Schmid C, **Liu T** (2021). "Personalized Causal Effect Estimation of N-of-1 Trials in mHealth: An instrumental Variable Approach." The 3rd Annual Health Data Science Symposium: Smartphones, Wearables, and Health. Harvard University, Boston, MA. November 5, 2021.
123. Orang'o EO, Bocage AE, **Liu T**, Itsura PM, NA, Tonui PK, Muthoka K, Stephen K, Caliendo A, Soya S, Feller E, Cu-Uvin S (2021). "HIV-1 RNA Genital Tract Shedding After Cryotherapy For Visual Inspection With Acetic Acid-Positive Cervical Lesions in Western Kenya was accepted as an oral presentation." IDSOG 2021.
124. Orang'o O, Mehta N, Mwangi A, Omodi V, **Liu T**, Sang E, Tonui P, Itsura P, Loehrer P, Cu-Uvin S (2021). "Cryotherapy and LEEP are Effective Treatment for CIN lesions in HIV+ and HIV- Women in Western Kenya." CROI 2021.
125. **Liu T**. (2020). Big data analytics in congenital heart diseases: Observational data and causality. Guangdong Academy of Medical Science. November 23, 2020.
126. Merchant RC, Marks SJ, Clark MA, Carey MP and **Liu T**. Retention of knowledge about HIV/AIDS and HIV testing among adult emergency department patients: implications for HIV testing and prevention. American College of Emergency Physicians Research Forum. Dallas, TX, October 26-29, 2020.
127. Christopher B, Liu T, et al. (2020). "Who's Not Being Tested for HIV and Why among Adult Patients in US Emergency Departments". The 23rd International AIDS Conference (virtual). July 6-10 2020.
128. "Evaluation of an Artificial Intelligence System for Ovarian Tumor Differentiation Based on Routine Magnetic Resonance Imaging". RSNA 2020.
129. Sun C and **Liu T** (2020). "Mediation Analysis for Assessing Mechanism of Alcohol Motivational Intervention on Reducing HIV Risk Behaviors". Brown Public Health Research Day. April 2020.
130. Bo M and **Liu T** (2020). "Factors Associated with Readmission of Pancreatic Cancer Patients Following Surgical Treatment". Brown Public Health Research Day. April 2020.
131. Tu C and **Liu T** (2020). "Ankle fracture prediction and visualization". Brown Public Health Research Day. April 2020.
132. Hansen B and **Liu T** (2020). "Understanding HIV viral rebound in ART patients using EHR data". Brown Public Health Research Day. April 2020.

133. Bennett CL, Marks SJ, **Liu T**, Clark MA, Carey MP, Merchant RC (2020). "Historia de dos ciudades - HIV Testing Need Among Hispanic Patients in Two Geographically and Demographically Diverse Emergency Departments." IAS.
134. Bennett CL, Marks SJ, **Liu T**, Clark MA, Carey MP, Merchant RC (2020). "Who's Not Being Tested for HIV and Why among Adult Patients in US Emergency Departments". IAS
135. Merchant RC, Marks SJ, Clark MA, Carey MP, **Liu T** (2020). "Can a video or pictorial brochure about HIV/AIDS and HIV testing increase HIV testing over a one-year period?" IAS.
136. Merchant RC, Marks SJ, Clark MA, Carey MP, **Liu T** (2020). "Retention of knowledge about HIV/AIDS and HIV testing: implications for HIV testing and prevention." IAS.
137. Bennett GL Marks SJ, **Liu T**, Clark MA, Carey MP, Merchant RC (2020). "Who still needs to be tested for HIV in US emergency departments?" SAEM.
138. Abel L, Garbern SC, **Liu T**, Perera SM, Kennedy SB, Massaquoi M, Sahr F, Levine AC, Aluisio AR (2020). "Impact of Oral Antimalarial Treatment on Mortality Among Patients with Ebola Virus Disease: A Multisite Cohort Study". SAEM.
139. **Liu T** (2019). "Data-driven strategies in prevention, diagnosis and treatment of global major infectious diseases: Case studies of HIV and Ebola virus diseases". 2nd International Symposium on One Health Research in China. Nov 23-24th, Guangzhou China.
140. Bennett CL, Marks SJ, Bauermeister JA, Clark MA, **Liu T**, Mayer KH, and Merchant RC (2019). "Discordance of perceived undiagnosed HIV infection risk with HIV sexual risk-taking behaviors among YMSM". [abstract] 37th GLMA Annual Conference on LGBTQ Health. New Orleans, LA. September 11-14.
141. Holland S, DeLong AK, **Liu T**, Makaretz A, Coetzer M, Ledingham L, Xu Y, Sam S, Sagoe K, Caliendo AM, Daniels M, Hogan JW, and Kantor R (2019). "Laboratory evaluation of HIV-1 viral load pooling with marker-assisted deconvolution". IDSA IDWeek. October 2-6, 2019. Washington DC.
142. Marks SJ, Merchant RC, Clark MA, Carey MP, and **Liu T** (2019). "Providing information according to patients' preferred method, video or pictorial brochure, does increase the knowledge gained from an HIV/AIDS and HIV testing information intervention". The CDC National HIV Prevention Conference, March 18-21, GA.
143. Marks SJ, Merchant RC, Clark MA, Carey MP, and **Liu T** (2019). "Patient preferences do not increase the knowledge gained from an HIV/AIDS and HIV testing information intervention delivered by video or pictorial brochure". CDC Conference. Submitted.
144. Sturm ES, **Liu T**, Hardaway JCH, Espat NJ, Somasundar P (2019). "Comprehensive Geriatric Assessments in Elderly Patients Undergoing Complex Oncologic Surgery". ACS, submitted.
145. Elkanah Omenge, Yan Tong, Philip Tonui, John M. Ong'echa, Kapten Muthoka, Stephen Kiptoo, Titus Maina, Peter Itsura, Ann Moormann, YeungChing Wong, Aaron Ermel, **Tao Liu**, Joseph Hogan, Patrick J. Loehrer Sr, Darron Brown, Susan Cu-Uvin (2019). "Comparison of HPV detection in HIV-infected and HIV-uninfected Kenyan women with or without cervical dysplasia." The 2019 ASCO Annual Meeting; May 31 - June 4, 2019
146. Xu Y, **Liu T**, Kantor R, Mwangi A, Daniels MJ, Hogan JW (2019). "Bayesian Framework for Predictive and Causal Modeling using BART". JSM, submitted.
147. S. Min, C. Beckwith, A. Manne, V. Novitsky, M. Coetzer, **T Liu**, I. Kuo, A. Kurth, L. Bazerman, A. Agopian, R. Kantor (2019). "HIV drug resistance and transmission networks among a criminal justice population." HIV Drug Resistance Mutations Adherence, Accepted.
148. Mehta N, **Liu T**, CuUvin S (2018). "Loop electrosurgical excision procedure (LEEP) is effective treatment among HIV-positive and HIV-negative women in western Kenya". CUGH.

149. Merchant RC, Marks SJ, Carey MP, Clark MA, and Liu T (2018). "Utility of three screening items in identifying adult English- and Spanish-speaking emergency department patients with lower health literacy skills". [abstract] American Public Health Association 2018 Annual Meeting & Expo. San Diego, CA. November 11, 2018.
150. Marks SJ, Merchant RC, Carey MP, Clark MA, and Liu T (2019). "Can a pictorial brochure improve HIV/AIDS and HIV testing knowledge among adult emergency department patients with lower health literacy as well as a video?" The CDC National HIV Prevention Conference. March 18-21, 2019; Atlanta, GA.
151. Marks SJ, Merchant RC, Carey MP, Clark MA, and Liu T (2018). "High levels of injection-drug use and sexual risk-taking among adult Latino immigrants at two urban emergency departments in Los Angeles and Providence" CDC 2019 National HIV Prevention Conference (not accepted).
152. Merchant RC, Liu T (2019). "Previous HIV testing is not associated with greater knowledge about HIV/AIDS and HIV testing". The CDC National HIV Prevention Conference. March 18-21, 2019; Atlanta, GA.
153. Marks SJ, Merchant RC, Carey MP, Clark MA, and Liu T (2019). "Changes in perceived risk of HIV infection among at-risk emergency department patients after a brief educational intervention" The CDC National HIV Prevention Conference. March 18-21, 2019; Atlanta, GA.
154. Marks SJ, Merchant RC, Clark MA, Liu T, Rosenberger JG, Bauermeister J and Mayer KH (2018). "Increasing HIV testing among non-urban YMSM: Can home-based rapid HIV self-testing help?" The 6th Annual Rural HIV Research and Training Conference. Coastal Georgia Center, Savannah, GA. July 15, 2018. <https://digitalcommons.georgiasouthern.edu/ruralhiv/2018/2018/35>
155. Xu Y, Liu T, Kantor R, Mwangi A, Daniels MJ, Hogan JW (2018). "Bayesian Framework for Predictive and Causal Modeling with Application to HIV care Cascade". IWHOD
156. Sturm EC, Hardaway JC, Liu T, Espat NJ, Somasundar P (2018). "Maintaining functional status in elderly cancer patients using comprehensive geriatric assessments to guide interventions". Society of Surgical Oncology's (SSO) 72nd Annual Cancer Symposium, March 27-30, in San Diego, CA.
157. Wray T, Liu T, Mayer K. (2018). "patterns of sexual risk and substance use during lapses in prep adherence in MSM". CROI, submitted.
158. Noksa A, Liu T, Kuo I, Bazerman L, Kurth A, Kantor R & Beckwith C (2018). "Validity of self-reported HCV status among justice-involved persons living with HIV". IDSA IDWeek. Oct 3rd-7th. San Francisco, CA. USA.
159. (*Invited Presentation*) Liu T, Yam D, Aluisio A, Peters S, Averill S, Kennedy S, Sahr F, Peters J, Cho D and Levine A (2018). "Modeling causal effect of the timing of intravenous fluid treatment on survival of Ebola patients" The International Biometrics Society/The Fifth International Biostatistics Symposium. July 5th-7th. Guangzhou, China.
160. Aluisio AR, Yam D, Peters JL, Cho DK, Perera SM, Kennedy SB, Massaquoi M, Sahr F, Garbern S, Liu T, Levine AC (2018). "Treatment with Intravenous Fluid Therapy Was Not Associated with Improved Survival Among Patients with Ebola Virus Disease: An International Multisite Cohort Study." The Annual Meeting of American College of Emergency Physicians Research Forum, October 2018, San Diego, USA.
161. Garbern S, Yam D, Cho D K, Aluisio A R, Perera SM, Levine AC, and Liu T (2018). "Effect of Mass Artesunate-Amodiaquine Distribution on Mortality of Patients with Ebola Virus Disease during West African Outbreak" American Society of Tropical Medicine and Hygiene, 67th Annual Meeting, November 2018, New Orleans, USA.
162. Aluisio AR, Yam D, Peters JL, Cho DK, Perera SM, Kennedy S B, Liu T, and Levine AC (2018). "Early Intravenous Fluid Therapy and Mortality Outcomes Among Patients with Ebola Virus Disease: A

- Multisite Retrospective Propensity-Matched Cohort Study” American Society of Tropical Medicine and Hygiene, 67th Annual Meeting, November 2018, New Orleans, USA.
163. Cu-Uvin S, Orang’o O, Tong Y, Ermel A, **Liu T**, Titus M, Ong’echa J, Muthoka K, Kiptoo S, Moormann A, Itsura P, Hogan J, Loehrer P, and Brown D. (2018). “Detection of high-risk HPV among HIV-infected and HIV-uninfected women undergoing cryotherapy or loop electrosurgical excision procedure (LEEP)”. The 32th International Papilloma Virus Conference (IPVC). Oct 2-6, 2018. Sydney, Australia.
  164. Xu Y\*, **Liu T**, and Hogan J (2018). “Causal effect estimation of HIV treatment initiation on patient retention.” National Public Health Week, April 2-6, 2018. Providence, RI.
  165. Yam D\*, **Liu T**, Levine A, Aluisio A, Peters S, Averill S, Kennedy S, Sahr F, Peters J and Cho D (2018). “Intravenous fluid treatments for Ebola patients: The risk and the reward.” The Joint Statistical Meeting. Jul 28-Aug2, 2018. Vancouver, BC. Canada.
  166. Xu Y\*, **Liu T**, Kantor R and Hogan JW (2018). “Comparison of Treatment Policies using Bayesian Nonparametric G- Formula”. The Joint Statistical Meeting. Jul 28-Aug2, 2018. Vancouver, BC. Canada.
  167. Castonguay BJ, Cressman A, Patrick R, Bazerman L, Trezza C, Beckwith C, Olsen H, **Liu T**, Peterson J, Kurth A and Kuo I (2018). “The implementation of a text messaging intervention to improve HIV continuum of care outcomes among persons recently released from correctional facilities: CARE+ Corrections.” The 11th Academic and Health Policy Conference on Correctional Health. Houston, Texas. March 22-23.
  168. Merchant RC, Marks SJ, Clark MA, Carey MP, and **Liu T** (2018). “Correlates of lower health literacy among adult Spanish-speaking US emergency department patients”. APHA's 2018 Annual Meeting & Expo. Nov, 2018, San Diego, CA.
  169. Merchant RC, Marks SJ, Carey MP, Clark MA, and **Liu T** (2018). “Can a shortened, self-administered version of the Short Assessment of Health Literacy identify English- or Spanish-speaking adult emergency department patients with lower health literacy?”. APHA's 2018 Annual Meeting & Expo. Nov, 2018, San Diego, CA.
  170. Merchant RC, Marks SJ, Clark MA, **Liu T**, Rosenberger JG, Bauermeister JA, and Mayer KH (2018). “Is home HIV self-testing a potential solution to overcome HIV testing barriers among US YMSM at higher risk for HIV infection yet have never been tested for HIV?”. Submitted to the 2018 International AIDS Society Meeting. July, 2018. Amsterdam, Netherland.
  171. Merchant RC, Marks SJ, Clark MA, **Liu T**, Rosenberger JG, Bauermeister J, and Mayer KH. “Are US black, Hispanic and white YMSM at risk for HIV acquisition being tested in accordance with national HIV testing recommendations? Results from a national study”. The 2018 International AIDS Society Meeting. July, 2018. Amsterdam, Netherland.
  172. Bacic J, **Liu T**, Thompson H, Boorjian SA, Leibovich BC, Golijanin D and Gershman B (2018). “The Association of Lymph Node Dissection with Overall Survival In High-Risk Non-Metastatic Renal Cell Carcinoma: An Analysis of the National Cancer Database”. The American Urological Association (AUA) 2018 Conference. Boston MA, May 12-16.
  173. Xu Y, **Liu T**, Kantor R, Mwangi A, Daniels, MJ and Hogan JW (2017). “Classification using ensemble learning under weighted misclassification loss”. The 2017 Joint Statistical Meeting (JSM). Baltimore, MD, Jul 29-Aug 3, 2017.
- The ASA 2017 Section on Risk Analysis Student Paper Award***
174. (Invited presentation) Liu T, D Yam, and A Levine (2018). “Modeling Causal Effect of the Timing of Intravenous Fluid Treatment on Survival of Ebola patients”. The 5th International Biostatistics Symposium, Guangzhou, China. July 5-7.

175. **Liu T**, Hogan JW, Kantor R (2017). “Analytic approaches to decision support at the policy and patient level: A case study in HIV treatment monitoring in Kenya”. The 2017 Joint Statistical Meeting (JSM). Baltimore, MD, Jul 29-Aug 3, 2017. (*Invited presentation*).
176. **Liu T**, Hogan JW, Daniels MJ, Coetzer M, Xu Y, Bove G, DeLong AK, Orido M, Diero L, and Kantor R (2017). “Marker-Assisted HIV-1 Viral Load Pooling Deconvolution Improves Monitoring Capacity”. IAS Conference on HIV Science (IAS 2017). Paris, France, July 23-26, 2017.
177. Geng H, Cho E, Drucker A, **Liu T**, Parker I, Qureshi A, Li W. (2017). “Let me know whether it fits with the scientific scope of the journal.” Public Health Day. Brown University. Providence RI, April 13, 2017.
178. Merchant RC, Marks SJ, Clark MA, **Liu T**, Rosenberger JG, Bauermeister J, and Mayer KH. “Potential healthcare insurance and provider barriers to PrEP utilization among YMSM.” The 9<sup>th</sup> IAS Conference on HIV Science. Paris, France, July 23-26, 2017.
179. Xu Y, **Liu T** and Hogan JW (2017) “Causal effect estimation of treatment initiation at enrollment on patient retention using BART”. Public Health Day. Brown University. Providence RI, April 13, 2017.
180. Wang Y, **Liu T** (2017). “Local Sensitivity Assessment of Cox Regression to Informative Censoring: Application to HIV-Care Engagement Study”. Brown Public Health Day. Providence RI, April 13, 2017.
181. Mwangi A, Hogan JW, Keter A, Tu W, **Liu T**, Sang E, Kiptoo S, Tong Y, and Denski C (2017). “The AMPATH-Biostatistics and Data Management U54 Core”. The AMPATH U54 Consortium Meeting. Eldoret, Kenya. March 22-24, 2017.
182. Orango O, **Liu T**, Itsura P, CuUvin S (2017). “The impact of VIA screen and treatment with cryotherapy or LEEP in patients with HIV-infected and HIV-uninfected Kenyan women with cervical intraepithelial neoplasia (CIN)”. The AMPATH U54 Consortium Meeting. Eldoret, Kenya. March 22-24, 2017.
183. Xu Y, **Liu T**, and Hogan JW (2017). “Classification using ensemble learning under weighted misclassification loss”. The ENAR 2017 Spring Meeting. Washington DC, March 12-15, 2017.
184. Wentz A, Merchant RC, Clark MA, **Liu T**, Romanoff J, Rosenberger JG, Bauermeister JA, and Mayer KH (2017). “Ignoring the ban: Blood donation among young adult MSM at risk for HIV”. IAS Conference on HIV Science (IAS 2017). Paris, France, July 23-26, 2017.
185. Kuo I, **Liu T**, Patrick R, Bazerman L, Trezza C, Castonguay BU, Kurth A, Beckwith C. (2017) “Use of a mHealth intervention to improve HIV treatment and engagement in HIV care among recently incarcerated persons in Washington, DC.” The 12th International Conference on HIV Treatment and Prevention Adherence. June 2017, Miami, FL.
186. Merchant RC, Romanoff J, Clark MA, **Liu T**, Rosenberger JG, Bauermeister JA, and Mayer KH (2017). “Comparison of home-based oral fluid rapid HIV self-testing vs. mail-in blood sample collection or medical/community HIV testing by young adult black, Hispanic, and white MSM: results from a randomized trial”. IAS Conference on HIV Science (IAS 2017). Paris, France, July 23-26, 2017.
187. Merchant RC, Alexovitz KA, Clark MA, **Liu T**, Rosenberger JG, Bauermeister JA, and Mayer KH (2017). “Discordance of voluntary HIV testing with HIV sexual risk-taking and perceived HIV infection risk among social media-using black, Hispanic, and white young-men-who-have-sex-with-men (YMSM)”. IAS Conference on HIV Science (IAS 2017). Paris, France, July 23-26, 2017.
188. Orango O, **Liu T**, Cu-Uvin S (2017). “VIA, Pap smear, and HR-HPV testing in women with HIV/AIDS for post-treatment cervical cancer screening: Same tests, different priorities”. The 31st International Papillomavirus Conference. February 28-March 4, 2017. Cape Town, South Africa.
189. **Liu T** (2016). “Date-driven method for optimal allocation of gold standard testing under constrained availability”. The 5th International Conference on Biometrics & Biostatistics, Oct 20-21, 2016. Houston, TX, USA. (*Invited presentation*)

190. Orango O, Chau D, **Liu T**, Itsura P, Tonui, Cu-Uvin S (2016). "Post-LEEP surveillance in HIV-positive and HIV-negative women in western Kenya" The 16th Biennial Meeting of the International Gynecologic Cancer Society. Oct 29-31, 2016, Lisbon, Portugal.
191. Xu Y, **Liu T**, DeLong AK, Bove G, Coetzer M, Diero L, Daniels MJ, Kantor R, Hogan JW (2016) "Comparison of machine learning and rule-combining methods for clinical decision making in HIV/AIDS" [#29] The 2016 Brown University School of Public Health Research Day. April 13, 2016, Providence RI.  
**The Brown School of Public Health Best PhD Poster Presentation Award**
192. Merchant RC, Zhang Z, **Liu T**, and Baird JR (2016). "Does a brief intervention reduce drug use and increase drug treatment utilization among adult emergency department patients over a one-year period?" [#1169] The 2016 Society for Academic Emergency Medicine Meeting, May 10-13, 2016, New Orleans.
193. Merchant RC, Baird J and **Liu T** (2016). "How do one-question screening strategies compare to a more comprehensive substance use assessment in identifying adult emergency department patients who might need an intervention?" [#1170] The 2016 Society for Academic Emergency Medicine Meeting, May 10-13, 2016, New Orleans.
194. Kuo I, Trezza C, Castonguay B, Olsen H, Rawls A, Patrick R, Banerman L, **Liu T**, Kurth A and Beckwith C (2016). "Study retention among HIV-infected persons in Washington, DC recently released from correctional facilities." Panel: "An In-depth Examination of the Seek, Test, Treat and Retain (STTR) Framework in Four Criminal Justice Population Research Studies" The 9th Academic & Health Policy Conference on Correctional Health, March 17-18, Baltimore, MD.
195. **Liu T** (2016). "Optimal allocation of gold standard testing under constrained availability: application to assessment of HIV treatment failure". Drexel University. Dornsife School of Public Health, Department of Epidemiology & Biostatistics. Feb 1, Philadelphia, PA. (*Invited presentation*)
196. **Liu T**, Hogan JW and Kantor R (2015). "Improved HIV treatment monitoring using pooled viral-load testing: A microsimulation study", CFAR/BUMC Collaborative Symposium. Boston University Medical Center. November 18, 2015, Boston, MA. (*Invited presentation*)
197. **Liu T** and Hogan JW (2015). "Coherence, Relevance, Transparency: The three requirements for sensitivity analysis in clinical trials." The Fourth ISBS/DIA Joint Symposium on Biopharmaceutical Statistics, June 29-July 1, Beijing, China. (*Invited presentation*)
198. Merchant RC, **Liu T**, Clark M, Rosenberger J, Bauermeister J and Mayer K (2015). "How do young adult social media-using black, Hispanic and white MSM differ in their interest in using fingerstick rapid HIV self-testing? Implications for encouraging testing among hard to reach populations." The 2015 International AIDS Society Meeting. Vancouver, Canada. July 20-22.
199. Kuo I, Kurth A, **Liu T**, Trezza C, Bazerman L, Castonguay B, Olsen H, Patrick R, Abbott S, Cates A, Peterson J, Beckwith C. (2015) "Gender Disparities Among HIV-Positive Individuals Involved in the Criminal Justice System: The CARE+ Corrections Study in Washington, DC". (ID 2252). The 2015 National HIV Prevention Conference. Atlanta, GA, December 6-9, 2015.
200. Merchant RC, **Liu T**, Melissa C, Bauermeister, J, Mayer K. (2015). "Incongruence between self-perceived HIV risk and reported sexual risk among social media-using Black, Hispanic and white MSM." (ID 1714). The 2015 National HIV Prevention Conference. Atlanta, GA, December 6-9, 2015.
201. Merchant RC, **Liu T**, Melissa C, Bauermeister, J, Mayer K. (2015). "Low PrEP utilization among social media-using young adult Black, Hispanic and white MSM at higher risk for HIV acquisition." (ID1829). The 2015 National HIV Prevention Conference. Atlanta, GA, December 6-9, 2015.
202. **Liu T** (2015) "HIV treatment monitoring for resource limited settings: data-driven methods to optimize utility of viral load testing." Saint Louis University, Department of Biostatistics and Epidemiology, St Louis, MO, March 20, 2015. (*Invited presentation*)

203. Merchant RC, DeLong AK, **Liu T** and Baird JR (2015) "Does a brief intervention among drug misusing adult emergency department patients increase uptake of rapid HIV/HCV screening?" The 2015 National Summit on HCV and HIV Diagnosis, Prevention and Access to Care, June 4-6, Arlington VA.
204. Kuo I, Kurth A, Cates A, Trezza C, Bazerman L, Castonguay B, Olsen H, Patrick R, **Liu T**, Peterson J, Abbott S, Beckwith C (2015). "HIV Risk and Clinical Characteristics Among HIV-Positive Individuals Involved in the Criminal Justice System: The CARE+ Corrections Trial in Washington, DC" The 2015 International AIDS Society Meeting. Vancouver, Canada. July 20-22.
205. Merchant RC, Baird JR, **Liu T**, and Nirenberg TD. "Does A Brief Intervention For Adult Emergency Department Patients Decrease Drug Misuse And Increase Drug Treatment Services Utilization?" [abstract] 2015 Society for Academic Emergency Medicine Annual Meeting, San Diego, CA, May 12-15, 2015.
206. Merchant RC, Shao W, Guan W\*, Clark MA, **Liu T**, Santelices C and Cortes DE (2015). "Variations in recruitment yield, costs, and speed and participant diversity across internet or social media platforms in a global study of HIV/AIDS and HIV testing knowledge". The 2015 International AIDS Society Meeting. Vancouver, Canada. July 20-22.
207. Merchant RC, Baird JR, **Liu T**, and Nirenberge TD (2015). "Short-term efficacy of a brief intervention to reduce drug misuse and increase drug treatment utilization among adult emergency department patients". The 2015 Society for Academic Emergency Medicine (SAEM) Meeting. San Diego, CA. May 12-16, 2015.
208. Guan W\*, **Liu T**, Baird JR, and Merchant RC (2015) "Evaluation of a brief intervention to reduce negative consequences of drug misuse among adult emergency department patients." Brown Public Health Research Day (Poster Presentation). April 16 2015, Brown University, Providence, RI. (\*Advised student).
209. **Liu T** (2015) "Optimal allocation of gold standard testing under constrained availability." Dalian Medical University School of Public Health. March 10, Dalian, China. (*Invited presentation*)
210. Stillman AE, Gatsonis CG, Lima J, Cormack J, Gareen I, Hoffmann U, **Liu T**, Mavromatis K, Schnall M, Udelson J, Woodward P, and RESCUE Investigators ACRIN. (2015). "Randomized evaluation of patients with stable angina comparing utilization of noninvasive examinations (RESCUE) trial." The 64th Annual Scientific Session & Expo of American College of Cardiology (ACC). San Diego, CA. March 14-16, 2015.
211. **Liu T** (2015) "Design of non-inferiority and equivalence clinical trials with time-to-event outcomes: The RESCUE study." North Sichuan Medical College School of Public Health, March 3-4, Sichuan, China. (*Invited lecture*)
212. **Liu T**, Hogan JW, Huang R\*, Kantor R (2015) "Improved viral load monitoring capacity with rank-based algorithms for pooled assays". The 2015 Conference on Retroviruses and Opportunistic Infections (CROI). Seattle, WA. Feb 23-26, 2015. (\*Advised student). (*Poster Presentation*)
213. **Liu T**, Hogan JW, and Kantor R (2014). "Optimal Allocation of Viral Load Testing Under Resource Constraints". The 2014 CFAR National Meeting. Providence, RI. November 5-6, 2014. (*Invited Presentation*)
214. Merchant RC, Baird JR, **Liu T**, Beaudoin F, and Nirenberg T (2014). "Severity of substance misuse and need for substance misuse interventions among adult emergency department patients." [abstract 189] American College of Emergency Physicians Scientific Assembly. Chicago, IL, October 27.
215. Shao W, Merchant R, Clark M, **Liu T**, Guan W, Santelices C, Cortes D (2014). "Does a Video Improve HIV/AIDS and HIV Testing Knowledge Among a Global Sample of Internet and Social Media Users?" [abstract 35819] National Conference on Health Communication, Marketing, and Media. Atlanta, GA, August 20.

216. **Liu T**, Hogan JW, and Kantor R (2014). "Optimizing Diagnosis of HIV Treatment Failure with Selective Use of Gold Standard Test." The 2014 New England Statistics Symposium. Harvard University School of Public Health, Boston, MA. April 25-26. (*Invited Presentation*)
217. Shao W, Merchant R, Clark M, **Liu T**, Guan W, Santelices C, Cortes D. (2014). "How Do Internet and Social Media Sites Compare in Achieving Optimal Completion Rates and Costs for an Internet-Based Research Study?" The 2014 CDC National Conference on Health Communication, Marketing, and Media. (August 19-21).
218. Orango E, **Liu T**, Itsura P, Mabeya H, Christofferson-deb A, Washington S, and Cu-Uvin S. (2014) "Visual inspection with acetic acid is good for follow-up after cryotherapy in HIV-infected women." The 2014 Conference on Retroviruses and Opportunistic Infections. March 3-6, 2014, Boston, MA.
219. Merchant RC, Baird JR, **Liu T**, Taylor L, Montague B, and Nirenberg T. (2014). "Does a Brief Intervention Increase HIV/HCV Screening among Drug-using Emergency Department Patients?" [abstract #743] 2014 Society for Academic Emergency Medicine Annual Meeting, Dallas, TX, May 14, 2014.
220. **Liu T**, Hogan JW, Wang L, Zhang S and Kantor R (2014) "Optimizing diagnostic accuracy of HIV treatment failure in resource-limited settings with selective use of of viral load testing." The 17th International Workshop on HIV Observational Databases. Cavtat, Croatia. March 2014. (Reference #17-185).
221. Jones MM, **Liu T**, and Shenassa ED (2013) "Differential secular trends in BMI in relation to region of childhood residence: A 25 years follow-up of a nationally representative sample." (Poster, Session 4362). The American Public Health Association (APHA) 141st Annual Meeting. Nov 2-6, 2013, Boston, MA.
222. Thakore R\*, Pinkson M, and **Liu T** (2013). "The effect of cocaine Use on the diet and metabolic status of HIV-infected individuals." Brown Public Health Research Day (Poster Presentation). April 18, Brown University, Providence, RI. (\*Advised student).
223. Tai M\*, **Liu T**, and Merchant RC. (2013). "HIV/AIDS-related hospitalization rates in US short-stay hospitals, 1982-2010." Brown Public Health Research Day (Poster Presentation). April 18, Brown University, Providence, RI. (\*Advised student)
224. Orango E, Itsura P, **Liu T**, Mabeya H, Christoffersen-Deb A, Washington S, and Cu-Uvin S. (2013). "Six Months Follow-up of HIV-infected Women After Visual Inspection with Acetic Acid (VIA) and Immediate Cryotherapy in Western, Kenya." The 2013 Conference on Retroviruses and Opportunistic Infections (CROI). Atlanta GA. March 3-6, 2013; Poster.
225. Merchant RC, Clark MA, **Liu T**, Santelices C, and Cortes D. (2012). "Can a video substitute for an in-person discussion in delivering HIV pre-test information to Spanish-speaking Latinos and better serve those with lower health literacy?" [Paper #31945] 2012 National Conference on Health Communication, Marketing, and Media. Atlanta, GA, August 7-9, 2012.
226. Merchant RC, Clark MA, **Liu T**, Santelices C, and Cortes D. (2012) "Can a video substitute for an in-person discussion in delivering HIV pre-test information to Spanish-speaking Latinos?" The 2012 National Summit on HIV and Viral Hepatitis Diagnosis, Prevention and Access To Care. Poster #116. Washington DC. November 26-28, 2012.
227. Tai M\*, **Liu T**, and Merchant RC (2013). "HIV/AIDS-related hospitalization rates in US short-stay hospitals, 1982-2010." The 2012 National Summit on HIV and Viral Hepatitis Diagnosis, Prevention and Access To Care. Abstract #80. Washington DC. November 26-28, 2012. (Peer-reviewed).
228. Kuo I, Kurth A, Bazerman L, Peterson J, Cates A, Azikiwe N, Wong J, **Liu T**, and Beckwith C. (2012). "CARE+ Corrections—Innovative use of technology in jails to support linkage and adherence to HIV care." The 2nd International Treatment as Prevention Workshop 2012, April, Vancouver, BC, Canada.

229. **Liu T**, Hogan, J.W, Zhang, S, Kantor, R. (2012). "Using auxiliary biomarkers to improve pooling strategies for HIV viral load testing." The 2012 International Biometrics Society (IBS) ENAR Meeting, May, Washington DC. (*Invited Presentation*)
230. **Liu T** (2011). "Optimizing diagnosis of HIV viral failure with selective use of gold standard testing in resource limited settings." CFAR Research-in-Progress Lectureship Series, November 18, 2011. The Mariam Hospital, Providence, RI. (*Invited Presentation*)
231. **Liu T** (2011). "Instrumental variable method and principal stratification: An application to a CFAR study." ACRIN Working Group Meeting, Brown University, Oct 18, 2011, Providence, RI. (*Invited Lecture*)
232. Baird JR, Merchant RC, Nirenberg T.D, **Liu T**, and Ladd GT. (2011). "Increasing the uptake of testing for chlamydia and gonorrhea among young female Emergency Department patients." [Abstract: 244972] 139th American Public Health Association Annual Meeting, Nov 1, Washington, DC.
233. Trillo A, Merchant RC, Baird JR, **Liu T**, and Nirenberg TD. (2011). "Gender differences in alcohol misuse and estimated blood alcohol levels among emergency department patients: implications for brief interventions." [Abstract: 16] 8th Annual International Network on Brief Interventions for Alcohol & Other Drugs (INEBRIA) Conference, Sept 22, Boston, MA.
234. Merchant RC, Baird JR, Nirenberg TD, **Liu T**, and Ladd GT (2011). "Does self-report of alcohol misuse and sexual risk-taking behavior motivate patients to be tested for HIV?" [Abstract: 1399] CDC 2011 National HIV Prevention Conference, Aug 14-17, Atlanta, GA.
235. Merchant RC, Baird JR, Nirenberg TD, **Liu T**, and Ladd GT (2011). "Increasing HIV sexual risk-taking as a function of alcohol misuse among emergency department patients." [Abstract: 1408] CDC 2011 National HIV Prevention Conference, Aug 14-17, Atlanta, GA.
236. **Liu T** (2011). "Optimizing diagnosis of HIV treatment failure with selective use of gold standard test." ACRIN Working Group Meeting, Brown University, July 27, 2011, Providence, RI. (*Invited Presentation*)
237. **Liu T** (2011). "Comparison of positive predictive values in matched pairs clinical trials." Invited Lectureship Series of the 60th Anniversary of North Sichuan Medical College. June 7, 2011. Nanchong, Sichuan, China. (*Invited Presentation*)
238. Hogan J, **Liu T**, Kantor R, Wang L, and Zhang S. (2011). "Optimizing diagnosis of HIV viral failure with selective use of gold standard testing in resource limited settings." Workshop on Statistical Methods in HIV research. April 14-15, 2011, Montreal Canada. (By Invitation).
239. **Liu T**, Hogan J and Kantor R. (2011). "Optimal use of selective viral load testing for HIV treatment monitoring in resource limited settings." The 2011 International Biometrics Society (IBS) ENAR Meeting. March, Miami, FL.
240. Anderson A, Firnhaber C, **Liu T**, Swarts A, Siminya M. and Cu-Uvin, S. (2011). " " The International Conference on Retroviruses and Opportunistic Infections. Feb 27-Mar 2, Boston, MA. (Peer-reviewed).
241. Anderson B, Firnhaber C, Swarts A, Siminya M, **Liu T**, and Cu-Uvin S (2010). "Self-Collected Vaginal Swabs for Trichomoniasis Testing in HIV-infected Women in South Africa." The 34th Annual Scientific Meeting of Infectious Diseases Society for Obstetrics and Gynecology (IDSOG). Aug. 5-7. Santa Fe, NM.
242. Guzman H, Merchant RC, Baird JR, Nirenberg TD, **Liu T**, Ladd GT (2010) "How does hazardous and heavy episodic alcohol drinking relate to HIV sexual risk among emergency department patients?" *Annals of Emergency Medicine*, 56 (3), S22-S22. [PII: S0196-0644(10)00690-6; doi:10.1016].
243. Guzman H, Merchant RC, Baird JR, Nirenberg TD, **Liu T**, and Ladd GT (2010). "How does hazardous and heavy episodic alcohol drinking relate to HIV sexual risk among emergency department

- patients?" 2010 American College of Emergency Physicians Scientific Assembly Research Forum, Las Vegas, NV. (Peer-reviewed).
244. Xu H\*, **Liu T** (2010). "Community Context and Obesity among Chinese Adults: A Longitudinal and Multilevel Analysis." Population Association of America 2010 Annual Meeting, Dallas, TX. (Peer-reviewed) (\*Advised student).
  245. Mabeya H, Khozaim K, **Liu T**, Orango O, Chumba D, Pisharodi L, and Cu-Uvin S. (2010). "Comparison of Conventional Pap Smear and Visual Inspection with Acetic Acid (VIA) in HIV Infected Women in Western Kenya." The International Conference on Retroviruses and Opportunistic Infections (CROI) 2010, San Francisco, CA. (Peer-reviewed).
  246. **Liu T**, DeLong A, and Blossom B. (2009). "Challenge to IDSA recommendations for late neurologic Lyme disease treatment and post Lyme syndrome." The 2009 International Lyme and Associated Diseases Society (ILADS) Conference, Washington DC. 2010. (By invitation).
  247. Merchant RC, Waxman MJ, Clark MA, Maher JC, Celada MT, Beckwith CG, **Liu T**, Simmons EA, and Mayer KH (2009). "Do patients and clinicians have ethical concerns about the 2006 CDC HIV testing recommendations?" The 2009 CDC National HIV Prevention Conference, Atlanta, GA. (Peer-reviewed).
  248. Waxman MJ, Merchant RC, Clark MA, Maher JG, Celada MT, Beckwith CG, **Liu T**, Simmons EA, and Mayer KH (2009). "Will the 2006 CDC HIV testing recommendations reduce stigma and increase HIV testing?" The 2009 CDC National HIV Prevention Conference, Atlanta, GA. (Peer-reviewed).
  249. Nijhawan A, McManus J, **Liu T**, DeLong A.K, Chapman S, Rapoza K, Kurpewski J, Caliendo A, Cu-Uvin S. (2009). "The effect of Acyclovir on CD4 count and CD4 percent slope in HIV-1/HSV-2 co-infected women taking highly active antiretroviral therapy (HAART)." The 47th IDSA Annual Meeting; Oct. 29-Nov. 1, 2009, Philadelphia, PA.
  250. McManus J, Nijhawan A, **Liu T**, DeLong A, Chapman S, Rapoza K, Kurpewski J, Caliendo A, Cu-Uvin S. (2009). "The effect of Acyclovir on the prevalence of bacterial vaginosis on HIV-1/HSV-2 co-infected women taking highly active antiretroviral therapy (HAART)." 47th IDSA Annual Meeting; Oct. 29-Nov. 1, 2009, Philadelphia, PA.
  251. Waxman MJ, Merchant R, Maher J, Clark M, Simmons E, Celada T, Beckwith C, **Liu T** (2009). "Who prefers CDC-recommended streamlined methods for HIV testing?" The 2009 Society for Academic Emergency Medicine (SAEM) Annual Meeting, New Orleans, LA. (Peer-reviewed).
  252. Beckwith CG, **Liu T**, Bazerman LB, DeLong AK, Pinkston M, Nunn A, Flanigan TP (2009). "Identification of multiple HIV risk factors among jail detainees." The 2009 CDC National HIV Prevention Conference, Atlanta, GA. (Peer-reviewed).
  253. Waxman MJ, Merchant RC, Maher JG, Clark MA, Simmons EA, Celada MT, Beckwith CG, **Liu T**, and Mayer KH (2008). "Do clinicians prefer the 2006 or 2001 CDC HIV testing recommendations?" The 2008 Forum for Collaborative HIV Research. Poster # 151. (Peer-reviewed).
  254. Caliendo A, Chapman S, Cu-Uvin S, DeLong A, Kurpewski J, **Liu T**, McManus J, Nijhawan A, and Rapoza K (2009). "The Effect of Acyclovir on CD4 Count and CD4 PercentSlope in HIV-1/HSV-2 Co-infected Women Taking Highly Active Antiretroviral Therapy (HAART)." Infectious Diseases Society of America 2009 Annual Meeting, October 2009.
  255. Waxman MJ, Clark, MA, Maher JC, Simmons EA, Celada MT, Beckwith CG, **Liu T**, and Mayer KH (2008). "Do patients and clinicians have ethical concerns about the 2006 CDC HIV testing recommendations?" The CDC National HIV Prevention Conference. (Peer-reviewed).
  256. Beckwith C, **Liu T**, Bazerman L, DeLong AK, Desjardins S, Flanigan T (2008). "HIV risk behavior pre- and post-HIV testing and counseling in jail." The 2008 Infectious Diseases Society of America (IDSA) Annual Meeting, Washington DC. (Peer-reviewed).

257. Phelan S, Gorin A, **Liu T**, Hogan JW, Lowe M, Fava F, and Wing R (2008). "What distinguishes long-term weight loss maintainers from the treatment-seeking obese? Analysis of environmental, behavioral, and psychosocial variables." The 2008 Annual Scientific Meeting of the North American Association for the Study of Obesity (NAASO), Phoenix, AZ. (Peer-reviewed).
258. Moreira C, DeLong AK, **Liu T**, Kurpewski J, Ingersoll J, Caliendo A, and Cu-Uvin SC (2008). "HIV-infected women on highly active antiretroviral therapy with asymptomatic bacterial vaginosis have low rates of genital tract HIV-1 RNA shedding." The 17th International AIDS Conference (IAS), Mexico. (Peer-reviewed).
259. Merchant RC, DePalo DM, **Liu T**, Rich JD, and Stein MD (2008). "Predictors of a chlamydia and/or gonorrhea infection among adult male emergency department patients." The 2008 National Sexually Transmitted Diseases (STD) Prevention Conference, Chicago, IL. (Peer-reviewed).
260. Anderson BL, **Liu T**, DeLong AK, Ingersoll J, Wang CC, Kurpewski J, Caliendo A, and Cu-Uvin SC (2007). "Genital tract shedding of HIV-1 RNA and lower genital tract infections may be linked by inflammation." The 45th Annual Meeting of the Infectious Diseases Society of America (IDSA), San Diego, CA. 2008 (Peer-reviewed).
261. Wang CC, **Liu T**, Anderson BL, DeLong AK, Chapman S, Kurpewski J, Ingersoll J, Caliendo AM, Cu-Uvin SC (2008) "Association between genital tract HIV-1 RNA shedding and mucosal inflammation among women on effective ART with undetectable plasma viral load." Poster presentation. The 15th Annual Conference on Retroviruses and Opportunistic Infections (CROI), February, 2008, Boston, MA.
262. Anderson BL, DeLong AK, **Liu T**, Wang CC, Kurpewski J, and Cu-Uvin SC (2007). "Association between genital tract white blood cells and viral shedding among HIV-infected women in the absence of genital infections." The 34th Annual Scientific Meeting of Infectious Diseases Society for Obstetrics and Gynecology (IDSOG), Boston, MA. (Peer-reviewed).
263. **Liu T**, Hogan JW, and DeLong AK (2008). "Bounds of ATE and unmeasured confounding bias in observational studies with continuous outcome." The 2008 International Biometric Society (IBS) ENAR meeting, Arlington, VA.
264. **Liu T** and Heitjan DF (2007). "Sensitivity of Cox regression to nonignorable censoring." The 2007 American Statistical Association (ASA) Joint Statistical Meeting, Salt Lake City, UT.
265. **Liu T** and Heitjan DF (2006). "Sensitivity and Kaplan-Meier estimate to nonignorable censoring." Dana-Farber Cancer Institute (Harvard University), Department of Biostatistics and Computation Biology, Cambridge, MA. (*Invited Presentation*)
266. **Liu T** and Heitjan DF (2006). "Sensitivity and Kaplan-Meier estimate to nonignorable censoring." Brown University, Center for Statistical Sciences, Department of Community Health, Providence, RI. (*Invited Presentation*)
267. **Liu T** and Heitjan DF (2006). "Sensitivity and Kaplan-Meier estimate to nonignorable censoring." The 2006 American Statistical Association (ASA) Joint Statistical Meeting, Seattle, WA.
268. **Liu T** and Gao L (2006). "Relationship assessment between PK and PD." The 2006 International Biometric Society (IBS) ENAR Meeting, Tampa, FL.
269. **Liu T** and Heitjan DF (2006). "Sensitivity and Kaplan-Meier estimate to nonignorable censoring." The 2006 International Biometric Society (IBS) ENAR Meeting, Tampa, FL. (*Invited Presentation; Distinguished Paper Award*)
270. **Liu T** and Fedorov VV (2006). "Randomized discontinuation trials." The 2006 International Biometric Society (IBS) ENAR Meeting, Tampa, FL.

## RESEARCH GRANTS

1. Brown Alcohol Research Center on HIV (ARCH): Research Methods Core  
 My Role: PI  
 Funding Agency: NIAAA  
 Type: P01  
 Period: 7/1/2020-5/31/2025
2. Optimal HIV Treatment Monitoring Strategies under Resource Constraints  
 My Role: Co-Investigator  
 Funding Agency: NIAID  
 PI: Hogan, Kantor  
 Type: R01  
 Period: 12/1/2014-10/31/2020 (NCE)
3. Mobile Health Intervention to Increase HIV Self Testing and Linkage to Services for High-Risk Men  
 My Role: Co-I/Lead Statistician  
 Funding Agency: NIH  
 Type: R01  
 Period: 04/01/2020-01/31/2025
4. Facilitating HIV Testing Among Young Adult MSM Through Social Networking  
 My Role: Brown PI  
 Funding Agency: NINR  
 Type: R21 NR023869  
 Period: 4/15/2014-3/31/2019 (NCE)
5. CARISMA - Cancer therapy Risk-reduction with Intensive Systolic BP Management  
 My Role: Lead Statistician  
 Funding Agency: NHLBI  
 Type: R34 HL146927  
 Period: 04/01/2019 – 03/31/2021
6. Our Family Our Future: A resilience-oriented family intervention to prevent adolescent HIV/STI infection and depression in South Africa  
 My Role: Co-Investigator  
 Funding Agency: NIH  
 Type: R01  
 Period: 08/11/2017-07/31/2022
7. RI-Center for Clinical and Translational Science  
 My Role: Co-Investigator  
 Funding Agency: NIGMS  
 Type: U54  
 Period: 07/01/2016-04/30/2021
8. Alcohol and HIV: Bio-behavioral Interactions and Intervention  
 My Role: Co-I  
 Funding Agency: NIAAA  
 Type: P01 AA019072  
 Period: 09/30/10-05/31/2020
9. Center for AIDS Research (CFAR) Biostatistics Core  
 My Role: Investigator

Funding Agency: NIH/The Miriam Hospital contract  
 PI: Hogan  
 Type: P30 A1 42853  
 Period: 09/01/98 - 06/30/2024

## B. Grant Submitted (Disposition Pending)

1. DICOM Image Analysis and AI System: Extension to Clinical AL Stroke Applications  
 My Role: Brown PI  
 Funding Agency: NIH  
 Type: R23

## C. Completed Grants

1. Evaluation of Strategies for Maximizing Supportive Care for Patients with Ebola Virus Disease  
 My Role: Brown PI  
 Funding Agency: NIGMS  
 Type: R03 AI132801  
 Period: 06/08/2017-05/31/2019
2. Facilitating HIV/AIDS and HIV Testing Literacy for Emergency Department Patients  
 My Role: Brown PI  
 Funding Agency: NIH  
 Type: R01 NR014782  
 Period: 7/23/2014-4/30/2019
3. AMPATH-Oncology Institute: HPV and Cervical Cancer in Kenyan Women with HIV/AIDS  
 My Role: Co-investigator and Lead Statistician  
 Funding Agency: NCI  
 Type: U54  
 Period: 9/19/2014-8/31/2019
4. “See and LEEP” Training for Kenyan Non-gynecologists  
 My Role: Brown PI  
 Funding Agency: CFAR/PepFAR Supplement  
 Type: P30  
 Period: 4/4/2014-3/31/2015
5. CARE Corrections: A technology-based HIV and HCV tool  
 My Role: Brown PI  
 Funding Agency: NIDA/The Miriam Hospital subcontract  
 Type: R01DA030747-01  
 Period: 07/01/10-06/30/2016
6. A Stage 2 Cognitive-Behavioral Trial: Reduce Alcohol First in Kenya Intervention  
 My Role: Co-Investigator  
 Funding Agency: NIAAA/Brown  
 Type: R01  
 Period: 09/15/11 – 08/31/2016
7. Evaluating the impact of patient-centric home health quality reports

- My Role: Brown PI  
 Funding Agency: Healthcentric Advisors/AHRQ  
 Type: R21  
 Period: 09/30/12-08/31/2015
8. Brief Intervention for Drug Misuse in the Emergency Department (BIDMED)  
 My Role: Brown PI  
 Funding Agency: NIDA  
 Type: R01  
 Period: 03/15/09-02/28/2014
9. Randomized Evaluation of Patients with Stable Angina Comparing Utilization of Noninvasive Examinations (RESCUE)  
 My Role: Protocol Statistician  
 Funding Agency: AHRQ  
 Type: R01  
 Period: 09/30/10-09/29/2014
10. Cervical Cancer See and Treat: How Best to Follow-Up  
 My Role: Co-Investigator  
 Funding Agency: NIAID  
 Type: P30  
 Period: 07/01/11 – 06/30/2013
11. Methods to Optimize Use of Limited Resources for Monitoring Treatment of HIV/AIDS in the Developing World  
 My Role: PI  
 Funding Agency: Center for AIDS Research  
 Type: 5P30  
 Period: 1/01/10-12/31/2011
12. Increasing Viral Testing in the Emergency Department (InVITED)  
 My Role: Brown PI  
 Funding Agency: NIDA  
 Type: R21  
 Period: 3/04/10 – 2/28/2012
13. Video-Based Delivery of HIV Test Information for Spanish-Speaking Latinos  
 My Role: Lead Investigator  
 Funding Agency: DHHS  
 Type: R21  
 Period: 03/04/11-02/29/13
14. New Approaches to Mediation Analysis using Causal Inference Methods  
 My Role: Co-Investigator  
 Funding Agency: NIAAA (stimulus)  
 Type: 1RC1  
 Period: 10/01/09-09/30/11
15. Shaping Long-Term Care in America  
 My Role: Lead Statistician  
 Funding Agency: NIH/NIA

Type: P01  
 Period: 09/01/08-06/30/10

16. Analyzing Complex Longitudinal Data in Behavior Sciences

My Role: Lead Statistician  
 Funding Agency: NIH  
 Type: RO1  
 Period: 08/01/04-07/31/08

17. Secondhand Tobacco Smoke Exposure, Maternal Stress, and Adverse Birth Outcomes

My Role: Lead Statistician  
 Funding Agency: Flight Attendants Medical Research Institute  
 Type: FAMRI  
 Period: 09/01/08-12/31/08

## ACADEMIC SERVICES

### A. Department and University Services

1. Biostatistics ScM Students Admission Committee, 2014, 2019 ~ 2021.
2. Biostatistics PhD Students Admission Committee, 2011 ~ 2013, 2015 ~ 2018.
3. Search Committee for Assistant Professor of Biostatistics, Research Scholar, 2017.
4. The Best Biostatistics Thesis Award Committee, 2013, 2014, 2016.
5. Search Committee for Assistant or Associate Professor, Teaching Scholar, 2015.
6. The 2014 Atlantic Causal Inference Conference (ACIC) Organizing Committee, 2014.
7. The Scholarship for Overseas Chinese Students Evaluation Committee, 2014.
8. Biostatistics Curriculum Committee, 2012 ~ 2014.
9. Biostatistics Graduate Program Committee, 2012 ~ 2013.
10. Search Committee for Research Assistant Professor of Biostatistics. 2013.
11. Epidemiology MPH Qualifying Exam Committee. 2010.

### B. Editorial Services

#### Journal Reviewer

[Statistical Method & Theory]

*Journal of the American Statistical Association (JASA); American Statistician; Annals of Applied Statistics; Biometrika; Biometrics; Biostatistics; Clinical Trials; Statistics in Medicine; Statistical Science; Statistics and Probability Letters; Statistical Modelling; Journal of Computational and Graphical Statistics (JCGS); Journal of Statistical Computation and Simulation; International Statistical Review*

[Epidemiology & Clinical Applications]

*AIDS & Clinical Research, Annals of Epidemiology, Cogent Medicine, Circulation, Health Services and Outcomes Research Methodology (HSOR), American Journal of Epidemiology (AJE), BMC Infectious Diseases, BMJ Open, Emerging Themes in Epidemiology, Epidemiology, Clinical Infec-*

*tious Diseases (CID), International Journal of Epidemiology & Infection, Journal of AIDS & Clinical Research, Journal of Clinical Epidemiology (JCE), Journal of the American Heart Association (JAHA), Nature*

#### Journal Editorial Board

1. 2010 – Present Journal of Clinical Research & Bioethics (JCRB).
2. 2012 – Present International Journal of Clinical Therapeutics and Diagnosis.
3. 2013 – Present Annals of Biometrics & Biostatistics (ABB).
4. 2010 – 2016 International Journal of Epidemiology & Infection

#### Statistical Editor/Reviewer

1. 2019 – Present Chest
2. 2017 – Present Circulation: Arrhythmia and Electrophysiology
3. 2015 – 2017 Journal of American Heart Association (JAHA)
4. 2018 – Present Biostatistics & Epidemiology
5. 2021 – Present New England Journal of Medicine (NEJM), Evidence

#### Book Reviewer

1. Chapman & Hall/CRC Press.

#### **C. Grant Reviewer**

1. 2020 Review Panel. NIH/NIAID: Comprehensive and Rapid Response to NIAID Research Programs
2. 2019 Ad hoc Grant Application Review Committee, Singapore National Medical Research Council
3. 2017 Scientific expert reviewer for the French National Research Agency (ANR): *French New Graduate Schools in Data Science and Health Informatics*.
4. 2015 Scientific expert reviewer for Beijing Natural Science Foundation & Shanyuan Joint Research Projects: *Infectious Diseases and Epidemiology*.
5. 2014 Ad-Hoc reviewer for the National Science Foundation (NSF): *Panel of Methodology, Measurement, and Statistics*.
6. 2013 Scientific expert reviewer for the French National Research Agency (ANR): *Basic Research on Networks of Trials*.

#### **D. Other Academic/Professional Services**

1. 2021 Scientific committee of the 3rd International Conference on Public Health Wellbeing 2021.
2. 2021 Selection committee of the inaugural class of Delta Omega Honorary Society.
3. 2019 American College of Radiology (ACR) Cardiology Imaging Committee.

4. 2019 International Chinese Statistical Association (ICSA) Conference, Scientific Program Organizing Committee.
5. 2017-present Data Safety and Monitoring Board (DSMB) Committee Member. The “Mindfulness-Based Blood Pressure Reduction” Study.
6. 2017 Judge of the Best Student Poster Awards, Brown Public Health Research Day, April 2017.
7. 2016 Reviewer of Public Health Research Data Poster Session, Brown Public Health Research Day, April 13th 2016.
8. 2015 Judge of the Best Student Poster Awards, Brown Public Health Research Day, April 16th 2015.
9. 2011-2012 Chair of the 2011-12 Starr Lectureship Series on “Comparative Effective Research and Causal Inference”. Brown University.
10. 2011-2012 Chair of the Biostatistics Seminar Series. Department of Biostatistics, Center for Statistical Sciences, Brown University.
11. August 2009. Chair of “Biometrics Section” (No.570). The American Statistical Association Joint Statistical Meeting (JSM). Washington D.C.

## HONORS & AWARDS

1. 2016 Brown A.M. Degree (*ad eundum*), Brown University
2. 2010 The Lifespan/Tuft/Brown CFAR Award.
3. 2006 The Biometric Society ENAR Best Paper Award.
4. 2004 Jonathan Raz Award for the Best Doctoral Award.
5. 2001 The Tau Beta Pi Honor Society.
6. 1999-2002 Iowa State University Graduate Scholarship.
7. 1994-1998 Tsinghua University Outstanding Undergraduate Scholarships.
8. 1994 Tsinghua University Freshmen Award.
9. 1993 Second Prize, National Science Olympiad of China (Physics).

## TEACHING

### A. Brown University (Instructor/Professor):

1. PHP 2650 **Statistical Learning and Big Data**
2. PHP 2950 **PhD Journal Club**
3. PHP 2511 **Applied Regression Analysis.**
4. PHP 2510 **Principles of Biostatistics and Data Analysis.**
5. PHP 2603 **Analysis of Longitudinal Data. .**
6. PHP 2601 **Linear and Generalized Linear Models.**

### B. University of Pennsylvania (Graduate Teaching Assistant/Instructor):

7. BSTA 771            **Applied Bayesian Analysis.**
8. BSTA 630            **Statistical Methods and Data Analysis.**
9. EPI 520             **Introductory Biostatistics.**

### C. Iowa State University (Graduate Instructor):

1. STAT 402            **Statistical Methods for Research Workers.**

### G. Invited/Guest Lectures

1. Statistical Methods in Translational Science Symposium: “**Causal Mediation Analysis: Application for Alcohol Behavioral Research**”, Brown Advance-CTR.
2. PHP 2030: “**Clinical Trials Methodology**”; Brown School of Public Health
3. Causality 101 Workshop: “**Recent Mediation Analysis Methods**”; Brown School of Public Health
4. PHP 2030: “**Design of Research Studies with Time-to-Event Outcomes**”; Brown School of Public Health, Department of Epidemiology.
5. BIOL 0495: “**Statistical Analysis for Biological Data**”; Department of Molecular Biology

## ADVISING/CONSULTING

### A. Thesis Advising (advisor or committee member)

1. Whitney Su,            Sc.M. (Biostatistics)  
Thesis: TBD (Advisor)
2. Kexin Qu,             Ph.D. (Biostatistics)  
Thesis: TBD (Co-Advisor)
3. Abigail Foley,        Sc.M. (Biostatistics)  
Thesis: A comparison of prediction methods under different extrapolation schemes
4. Anna Wentz,          Ph.D. (Epidemiology)      2021  
Thesis: Long-term pain & opioid analgesic use for urolithiasis in the STONE trial
5. Samantha Morrison, Ph.D. (Biostatistics)      2021  
Thesis: On the evaluation of detection and prediction performance of machine learning models with applications to medical imaging data.
6. Yizhen Xu,             Ph.D. (Biostatistics)      2020.  
Thesis: Classification using Ensemble Learning under Weighted Misclassification Loss  
**2016 Brown School of Public Health Best PhD Poster Presentation Award**  
**2017 American Statistical Association: Best Student Paper Competition Award**
7. Chengzhao Tu,        Sc.M. (Biostatistics)      2020  
Thesis: Ankle fracture prediction and visualization. (Advisor)
8. Chengqian Sun,        Sc.M. (Biostatistics)      2020  
Thesis: Mediation Analysis for Assessing Mechanism of Alcohol Motivational Intervention on Reducing HIV Risk Behaviors. (Advisor)
9. Max Bo,                Sc.M. (Biostatistics)      2020  
Thesis: Factors Associated with Readmission of Pancreatic Cancer Patients Following Surgical Treatment. (Advisor)

10. Blake Hansen, Sc.M. (Biostatistics) 2020  
Thesis: Predictive Modeling of HIV Viral Failure Among U=U Eligible Patients. (Advisor)
11. Yanbing Wang, Sc.M. (Biostatistics) 2017  
Thesis: Local Sensitivity Assessment of Discrete-Time Cox Regression to Informative Censoring with Application to an HIV-Care Engagement Study.  
**2017 Best Thesis Award**
12. Mun Sang Yue, Ph.D. (Biostatistics) 2016  
Thesis: Evaluation of predictive accuracy of tests and impact of tests on patient outcomes.
13. Zhongli Zhang, Sc.M. (Biostatistics) 2016  
Thesis: Evaluation of a Brief Intervention to Reduce Negative Consequences of Drug Misuse among Adult Emergency Department Patients. (Advisor)
14. Wentao Guan, Sc.M. (Biostatistics) 2016  
Thesis: Evaluation of a Brief Intervention to Reduce Negative Consequences of Drug Misuse among Adult Emergency Department Patients. (Advisor)
15. Jay Jia Xu, B.S. (Statistics) 2015  
Undergrad Honor Thesis: A Comparison of INLA and JAGS When Applied To Multiple Imputation with the Penalized Spline of Propensity Prediction Method
16. Renxia Huang, Sc.M. (Biostatistics) 2014  
Thesis: Combining Routine Clinical Markers and Pooled Viral Load Strategy to Monitor Antiretroviral Treatment Failure in Resource-Poor Settings.  
**2014 Best Thesis Award**
17. Andrea Austin, Ph.D. (Biostatistics) 2013  
Thesis: Methods for prediction and inference on social networks with extensions to bimolecular pathways.
18. Miao Tai, Sc.M. (Biostatistics) 2013  
Thesis: HIV/AIDS-related hospitalizations in United States short-stay hospitals, 1982-2010 (Advisor)
19. Rachel Thakore, B.S. (Community Health) 2013  
Undergrad Honor Thesis: The effect of cocaine use on the diet and metabolic status of HIV-infected individuals. (Advisor)
20. Xuan Deng, Sc.M. (Biostatistics) 2013  
Thesis: Mediation effects of behavioral and psychological factors in maintaining weight loss.
21. Edwin Sang, Sc.M. (Biostatistics) 2013  
Thesis: Causal effect of HIV serostatus disclosure on mortality and loss to follow-up after HAART initiation using propensity score.  
**2013 Best Thesis Award**
22. Ann Mwangi, Ph.D. (Biostatistics) 2011  
Thesis: Addressing selection bias in observational event history data, with application to HIV in Western Kenya.
23. Jing Zhang, Ph.D. (Biostatistics) 2011  
Thesis: Causal Inference for Mediation Effects.
24. Raymond Ng, Sc.M. (Biostatistics) 2011  
Thesis: Analysis of repeated FDG-PET scans in the National Oncology PET Registry (NOPR).
25. Patricia S. Fox, Sc.M. (Biostatistics) 2009  
Thesis: Transition within states of lung function: A multinomial logistic approach using two-year follow-up data from bacteriologically cured tuberculosis patients.

26. Lisa Rosen (Asnis), Sc.M. (Biostatistics) 2009  
 Thesis: Evaluating the utilization and efficiency of ICD-9 codes to identify visits for blood or body fluid exposures in 11 Rhode Island emergency departments. (Advisor)

### C. Graduate Academic Advisor

- |                         |                       |      |
|-------------------------|-----------------------|------|
| 1. Ruofan Bie           | PhD (Biostatistics)   |      |
| 2. Whitney (Wanning) Su | Sc.M (Biostatistics)  |      |
| 3. Yue Wu               | Sc.M (Biostatistics)  | 2020 |
| 4. Zheyu Chen           | Sc.M (Biostatistics)  | 2020 |
| 5. David Chen           | Sc.M (Biostatistics)  | 2019 |
| 6. Monica-Ann Mendoza   | Sc.M (Biostatistics)  | 2019 |
| 7. Yimo Zhang           | A.M (Biostatistics)   | 2019 |
| 8. Yuanfei Chen         | Sc.M. (Biostatistics) | 2017 |
| 9. Ran Wei,             | M.A. (Biostatistics)  | 2016 |
| 10. Jin Shi,            | Sc.M. (Biostatistics) | 2016 |
| 11. Wentao Guan         | Sc.M. (Biostatistics) | 2015 |
| 12. Lisa Wang,          | Sc.M. (Biostatistics) | 2013 |
| 13. Nuo Xu,             | M.A. (Biostatistics)  | 2012 |
| 14. Junchao Shangguan,  | M.A. (Biostatistics)  | 2011 |
| 15. Dong-Hyun Ahn,      | M.A. (Biostatistics)  | 2010 |

### D. Other Teaching and Advising Roles

1. C Yuan, Brown graduate student in Biostatistics. 2013 Summer Intern at Press Ganey. My role: Curriculum Practical Training Advisor.
2. J Shangguan, Brown master student in Biostatistics. 2010 Summer Intern at Fidelity Co. My role: Curriculum Practical Training Advisor.
3. Alina Kung, Brown undergraduate student (International Relationships). Awardee of International Scholars Program Scholarship 2010. "Evaluating the Effectiveness of American Healthcare NGOs in China." My role: Research Advisor.
4. Hongwei Xu, Brown graduate student in Sociology. Awardee of Brown University Global Health Scholarship 2009. "A Longitudinal Study of the Coexistence of Underweight and Overweight Persons within Household in China: 1997-2006." My role: Research Advisor.

### SOFTWARES

1. R-package: **mMPA** (Marker-assistant mini-pooling with algorithm).  
 Available at: <https://cran.r-project.org/web/packages/mMPA/>  
 See description and example at: <https://taotliu.github.io/mMPA>  
 Authors: Tao Liu, PhD and Yizhen Xu, ScM.  
 Reference: Liu T, et al (*JAIDS*, 2017).
2. R-package: **TGST** (Targeted gold standard testing under constraints).  
 Available at: <https://github.com/yizhenxu/TVLT>.

Authors: Yizhen Xu, ScM and Tao Liu, PhD.

Reference: Liu T, et al (*JASA*, 2013)

3. R-package: **QuantPooledTesting** (Quantitative Pooled Testing).  
Available at: <https://github.com/taotliu/QuantPooledTesting>  
Authors: Tao Liu, PhD.
4. R-package: **TriCTree** (Trichotomous Classification Tree).  
Available at: <https://github.com/taotliu/TriCTree>  
Authors: Yan Sun, Yanke Zhu PhD, and Tao Liu PhD.

## PROFESSIONAL SOCIETIES

1. The International Chinese Statistical Association (ICSA).
2. The American Association for the Advancement of *Science* (AAAS).
3. International Biometric Society (IBS).
4. The American Statistics Association (ASA).
5. The Tau Beta Pi Honor Society.

## HOBBIES

Beekeeping; carpentry; organic gardening.