

HYUNKEUN RYAN CHO

CONTACT INFORMATION	Department of Biostatistics College of Public Health University of Iowa 145 N. Riverside Drive Iowa City, IA 52242 USA	<i>Phone:</i> +1 (319) 384-1581 <i>Email:</i> hyunkeun-cho@uiowa.edu <i>Homepage:</i> https://www.public-health.uiowa.edu
EDUCATION	Ph.D. in Statistics, University of Illinois at Urbana-Champaign M.S. in Statistics, University of Illinois at Urbana-Champaign M.S. in Applied Math & Statistics, Stony Brook University B.S. in Applied Math & Statistics, Stony Brook University B.A. in Mathematics, Stony Brook University	2013 2011 2008 2007 2007
EMPLOYMENT	Associate Professor, Department of Biostatistics at U of Iowa Assistant Professor, Department of Biostatistics at U of Iowa Assistant Professor, Department of Statistics at Western Michigan Univ	since 7/2021 7/2017 - 6/2021 7/2013 - 6/2017
PROFESSIONAL EXPERIENCE	Biostatistician, Center for Access & Delivery Research and Evaluation Affiliated Faculty, Center for Advancing Multimorbidity Science Affiliated Faculty, Clinical Trials Statistical and Data Management Center Director, Data Science Program at Western Michigan Univ Statistical Analyst, Office of Provost at Western Michigan Univ Graduate Research Assistant, Department of Statistics at U of Illinois Consultant, Illinois Statistical Office at U of Illinois Intern, Korea Institute of Finance	since 2/2020 since 2/2019 since 2/2018 9/2014 - 7/2017 5/2014 - 12/2016 8/2010 - 7/2013 8/2010 - 7/2013 12/2005 - 1/2006
AWARD AND HONOR	Carver Trust Associate Professor Advancement Award Faculty Research Opportunity Award NISS Writing Workshop Travel Grant Award New Faculty Research Award Faculty Travel Award Norton Prize Finalist for Exceptional Doctoral Thesis Graduate College Conference Travel Award Degree Honor ‘Magna Cum Laude’	2022 2019 2018 2017 2015 2013 2013 2007
METHODOLOGICAL RESEARCH AREAS	Longitudinal/Functional data analysis; Causal inference; Unsupervised learning; Predictive model; Nonparametric model; Quantile regression; Precision medicine.	
COLLABORATIVE RESEARCH AREAS	Neuroscience; Psychiatry; Child and maternal health; Auditory science; Parkinson’s disease; Dementia; Aging; HIV; Clinical trial.	
PUBLICATIONS <i>(Note: ‡ denotes doctoral student.)</i>	<p>Cho, H. and Kim, S. (2023). Modeling the population mean outcome trajectory in an observational study with a guideline-based intervention, <i>Statistica Sinica</i>, in press.</p> <p>Wang, S.‡, Kim, S., Cho, H. and Chang, W. (2023). Nonparametric predictive model for sparse and irregular longitudinal data, <i>Biometrics</i>, in press.</p> <p>Aryal, A.‡, Janssen, B., Casteel, C., Fethke, N., Brenda, B., Cho, H. and Rohlman, D. (2023). Applying the worker well-being framework to identify factors that impact turnover among long-haul truck drivers, <i>Workplace Health & Safety</i>, in press.</p> <p>Ryckman, K. K., Holdefer, P. J., Sileo, E., Carlson, C., Weathers, N., Jasper, E. A.‡, Cho, H., Oltman, S. P., Dagle, J. M., Jelliffe-Pawlowski, L. L. and Rogers, E. E. (2023). The Validity of Hospital Diagnostic and Procedure Codes Reflecting Morbidity in Preterm Neonates Born <32 Weeks Gestation, <i>Journal of Perinatology</i>, in press.</p> <p>Weintraub, D., Picillo, M., Cho, H., Caspell-Garcia, C., Blauwendraat, C., Brown, E., Chahine, L., Coffey, C., Dobkin, R. D., Foroud, T., Galasko, D., Kiebertz, K.,</p>	

- Marek, K., Merchant, K., Mollenhauer, B., Poston, K. L., Simuni, T., Siderowf, A., Singleton, A., Seibyl, J., Tanner, C. M. and the Parkinson's Progression Markers Initiative. (2023). Impact of the dopamine system on long-term cognitive impairment in Parkinson disease: an exploratory study, *Movement Disorders Clinical Practice* 10, 942-954
- Nishizawa, Y., Yamanashi, T., Saito, T., Marra, P., Crutchley, K., Wahba, N., Malicoat, J., Shibata, K., Nishiguchi, T., Lee, S., **Cho, H.**, Kanazawa, T. and Shinozaki, G. (2023). Bispectral EEG (BSEEG) algorithm captures high mortality risk among 1077 patients: its relationship to delirium motor subtype, *American Journal of Geriatric Psychiatry* 41, 704-715.
- Livorsi, D. J., Sherlock, S. H., Goedken, C. C., Pratt, S., Goodman, D. A., Clarke, K. C., **Cho, H.**, Reisinger, H. S. and Perencevich, E. N. (2023). The use of telehealth-supported stewardship activities in acute-care and long-term care settings: an implementation effectiveness trial, *Infection Control & Hospital Epidemiology* 14, 1-8.
- Comp, K., Nishizawa, Y., Akers, C. C., Chang, G., Modukuri, M., Tran, T., Anderson, Z-E., Marra, P. S., Crutchley, K. J., Wahba, N., Iwata, M., **Cho, H.** and Shinozaki, G. (2023). Anti-inflammatory medication use associated with reduced delirium risk and all-cause mortality: A retrospective cohort study, *Journal of Psychosomatic Research* 168, 111212.
- Marra, P., Yamanashi, T., Crutchley, K., Wahba, N., Anderson, Z-E., Modukuri, M., Chang, G., Tran, T., Iwata, M., **Cho, H.** and Shinozaki, G. (2023). Metformin use history and genome-wide DNA methylation profile: potential molecular mechanism for aging and longevity, *Aging* 15, 601-616.
- Yamanashi, T., Crutchley, K., Wahba, N., Nagao, T., Marra, P., Akers, C., Sullivan, E., Iwata, M., Howard III, M., **Cho, H.**, Kawasaki, H., Hughes, C., Pandharipande, P., Hefti, M. and Shinozaki, G. (2023). The genome-wide DNA methylation profiles among neurosurgery patients with and without post-operative delirium, *Psychiatry and Clinical Neurosciences* 77, 48-55.
- Simuni, T., Merchant, K., Brumm, M., **Cho, H.**, Chaspell-Garcia, C., Coffey, C., Chahine, L., Alcalay, R., Nudelman, K., Foroud, T., Mollenhauer, B., Siderowf, A., Tanner, C., Iwaki, H., Sherer, T. and Marek, K. (2022). Longitudinal clinical and biomarker characteristics of non-manifesting LRRK2 G2019S carriers: The PPMI cohort, *npj Parkinson's Disease* 8, 140.
- Yamanashi, T., Anderson, Z. E., Modukuri, M., Chang, G., Tran, T., Marra, P. S., Wahba, N. E., Crutchley, K. J., Sullivan, E. J., Jellison, S. S., Comp, K. R., Akers, C. C., Meyer, A. A., Lee, S., Iwata, M., **Cho, H.**, Shinozaki, E. and Shinozaki, G. (2022). The potential benefit of metformin to reduce delirium risk and mortality: A retrospective cohort study, *Aging* 14, 8927-8943.
- Picillo, M., LaFontant, D-E.[‡], Bressman, S., Caspell-Garcia, C., Coffey, C., **Cho, H.**, Burghardt, E., Dahodwala, N., Sanders-Pullman, R., Tanner, C. and Amara, A. W. (2022). Sex-related longitudinal change of motor, non-motor, and biological features in early Parkinson disease, *Journal of Parkinson's Disease* 12, 421-436.
- Wahba, N. A., Nishizawa, Y., Marra, P. S., Yamanashi, T., Crutchley, K. J., Nagao, T., Shibata, K., Nishiguchi, T., **Cho, H.**, Howard III, M. A., Kawasaki, H., Hefti, M., Kanazawa, T. and Shinozaki, G. (2022). Genome-wide DNA methylation analysis of post-operative delirium with brain, blood, saliva, and buccal samples from neurosurgery patients, *Journal of Psychiatric Research* 156, 245-251.
- Hadlandsmyth, K., Burgess, D. J., Leparski, R. F., Odom, A. S., Campbell, M. J., Obrecht, A. A., Adamowicz, J. L., **Cho, H.**, Steffensmeier, K. S., Johnson, N. L., Richards, C. C., VanderWeg, M. W., Lund, B. C., Yoon, P. and Mosher, H. J. (2022). The Perioperative Pain Self-Management (PePS) randomized controlled trial protocol: Preventing chronic post-surgical pain and prolonged opioid use, *Contemporary Clinical Trials* 118, 106810.

- Ryckman, K. K., Ramesh, A., **Cho, H.**, Oltman, S.P., Rogers, E.E., Dagle, J.M. and Jelliffe-Pawlowskic, L. L. (2022). Evaluation of heparinized syringes for measuring newborn metabolites in neonates with a central arterial line, *Clinical Biochemistry* 99, 78-81.
- Kim, S., **Cho, H.** and Kim, M. O. (2021). Predictive generalized varying-coefficient longitudinal model, *Statistics in Medicine* 40, 6243-6259.
- Kim, S., **Cho, H.** and Wu, C. (2021). Risk-predictive probabilities and dynamic non-parametric conditional quantile models for longitudinal analysis, *Statistica Sinica* 31, 1415-1439.
- Jasper, E. A.[‡], **Cho, H.**, Breheny, P. J., Bao, W., Dagle, J. M. and Ryckman, K. K. (2021). Perinatal determinants of growth trajectories in children born preterm, *PLoS ONE* 16, e0245387.
- Espay, A. J., Lafontant, D-E.[‡], Poston, K. L., Caspell-Garcia, C., Marsili, L., **Cho, H.**, McDaniel, C., Kim, N., Coffey, C., Mahajan, A., Ezzat, K. and Sturchio, A. (2021). Low soluble amyloid- β 42 is associated with smaller brain volume in Parkinson's disease, *Parkinsonism & Related Disorders* 92, 15-21.
- Yamanashi, T., Malicoat, J. R., Steffen, K. T., Zarei, K., Li, R., Purnell, B. S., Najafi, A., Saito, K., Singh, U., Toth, B. A., Lee, S., Dailey, M. E., Cui, H., Kaneko, K., **Cho, H.**, Iwata, M., Buchanan, G.F. and Shinozaki, G. (2021). Bispectral EEG (BSEEG) quantifying neuro-inflammation in mice induced by systemic inflammation: a potential mouse model of delirium, *Journal of Psychiatric Research* 133, 205-211.
- Saito, T Malicoat, J. R., Leyden, L. R., Williams, J. C., Jellison, S. S., Long, H., Hellman, M. M., Crutchley, K. J., Anderson, Z. E. M., Lo, D., Modukuri, M. V., Schacher, C. J., Yoshino, A., Toda, H., Shinozaki, E., **Cho, H.**, Lee, S. and Shinozaki, G. (2021). Mortality prediction by bispectral electroencephalography among 502 patients: its role in dementia, *Brain Communications* 3, fcab037.
- Chasco, E. E, Hoth, A. B., **Cho, H.**, Shafer, C., Siegler, A. J. and Ohl, M. E. (2021). Mixed-methods evaluation of the incorporation of home specimen self-collection kits for laboratory testing in a telehealth program for delivering HIV pre-exposure prophylaxis, *AIDS and Behavior* 25, 2463-2482.
- Yamanashi, T., Marra, P., Crutchley, K., Wahba, N., Malicoat, J., Sullivan, E., Akers, C., Nicholson, C., Herrmann, F., Karam, M., Noiseux, N., Kaneko, K., Shinozaki, E., Iwata, M., **Cho, H.**, Lee, S. and Shinozaki, G. (2021). Mortality among patients with sepsis associated with a bispectral electroencephalography (BSEEG) score, *Scientific Reports* 11, 14211.
- Chahine, L. M., Brumm, M., Caspell-Garcia, C., Oertel, W., Mollenhauer, B., Amara, A., Fernandez-Arcos, A., Tolosa, E., Simonet, C., Hognl, B., Videnovic, A., Hutten, S., Tanner, C., Weintraub, D., Burghardt, E., Coffey, C., **Cho, H.**, Kiebertz, K., Poston, K., Merchant, K., Galasko, D., Foroud, T., Siderowf, A., Marek, K., Simuni, T. and Iranzo, A. (2021). Dopamine transporter imaging predicts clinically-defined α -synucleinopathy in REM sleep behavior disorder, *Annals of Clinical and Translational Neurology* 8, 201-212.
- Cho, H.**, Kim, S. and Lee, M. (2020). Adjusting a subject-specific time of event in longitudinal studies, *Statistical Methods in Medical Research* 29, 1787-1798.
- Saito, T., Braun, P. R., Daniel, S., Jellison, S. S., Hellman, M., Shinozaki, E., Lee, S., **Cho, H.**, Yoshino, A., Toda, H. and Shinozaki, G. (2020). The relationship between DNA methylation in neurotrophic genes and age as evidenced from three independent cohorts: Differences by delirium status, *Neurobiology of Aging* 94, 227-235.
- Saito, T., Toda, H., Duncan, G., Jellison, S., Yu, T., Klisares, M., Daniel, S., Andreasen, A., Leyden, L., Hellman, M., Shinozaki, E., Lee, S., Yoshino, A., **Cho, H.** and Shinozaki, G. (2020). Epigenetics of neuroinflammation: immune response, inflammatory response and cholinergic synaptic involvement evidenced by genome-wide

- DNA methylation analysis of delirious inpatients. *Journal of Psychiatric Research* 129, 61-65.
- Simuni, T., Uribe, L., **Cho, H.**, Caspell-Garcia, C., Coffey, C., Siderowf, A., Trojanowski, J. Q., Shaw, L. M., Seibyl, J., Singleton, A., Toga, A. W., Galasko, D., Foroud, T., Tosun, D., Poston, K., Weintraub, D., Mollenhauer, B., Tanner, C. M., Kiebertz, K., Chahine, L. M., Reimer, A., Hutten, S. J., Bressman, S. and Marek, K. (2020). Clinical and DAT imaging characteristics of non-manifest LRRK2 and GBA mutation carriers in the Parkinson's Progression Markers Initiative (PPMI): A cross sectional study, *Lancet Neurology* 19, 71-80.
- Weintraub, D., Caspell-Garcia, C., Simuni, T., **Cho, H.**, Coffey, C., Aarsland, D., Alcalay, R. N., Barrett, M. J., Chahine, L. M., Eberling, J., Espay, A. J., Hamilton, J., Hawkins, K., Leverenz, J., Litvan, I., Richard, I., Rosenthal, L., Siderowf, A. and York, M. (2020). Neuropsychiatric symptoms and cognitive abilities over the initial quinquennium of Parkinson disease, *Annals of Clinical and Translational Neurology* 7, 449-461.
- Saito, T., Shinozaki, G., Koga, M., Tanichi, M., Takeshita, S., Nakagawa, R., Nagamine, M., **Cho, H.**, Morimoto, Y., Kobayashi, Y., Yoshino, A. and Toda, H. (2020). Effect of interaction between a specific subtype of child abuse and the FKBP5 rs1360780 SNP on DNA methylation among patients with bipolar disorder, *Journal of Affective Disorders* 272, 417-422.
- Niu, X.[‡] and **Cho, H.** (2019). Adjusting for baseline information in comparing the efficacy of treatments using bivariate varying-coefficient models, *Journal of Nonparametric Statistics* 31, 680-694.
- Niu, X.[‡] and **Cho, H.** (2019). Efficient regression modeling for correlated and overdispersed count data, *Communications in Statistics-Theory and Methods* 48, 6005-6018.
- Niu, X.[‡] and **Cho, H.** (2019). Simultaneous estimation and inference for multiple response variables, *Communications in Statistics-Theory and Methods* 48, 2734-2747.
- Kim, S., **Cho, H.** and Zhang, X. (2019). Initial severity-dependent longitudinal model with application to a randomized controlled trial of women with depression, *Statistics in Medicine* 38, 1678-1689.
- Andrews, N.[‡] and **Cho, H.** (2019). Generalized growth curve models for longitudinal data in application to a randomized clinical trial, *Journal of the Korean Statistical Society* 48, 40-49.
- Shinozaki, G., Bormann, N. L., Chan, A. C., Zarei, K., Sparr, N. A., Klisares, M., Jellison, S. S., Heinzman, J., Dahlstrom, E. B., Duncan, G. N., Coon, N. A., Gaul, L., Robles, J., Yu, T., Wansek, R., Ando, T., Wong, T., Chicchelly, H., Cramer, E., Wimmel, C., Chronis, T., Sabbagh, S., Yuki, K., Weckmann, M., Yamada, T., Karam, M., Noiseux, N., Shinozaki, E., **Cho, H.**, Lee, S. and Cromwell, J. W. (2019). Identification of patients with high mortality risk and prediction of outcomes in delirium by bispectral EEG, *Journal of Clinical Psychiatry* 80, 19m12749.
- Cho, H.** (2018). Statistical inference in a growth curve quantile regression model for longitudinal data, *Biometrics* 74, 855-862.
- Andrews, N.[‡] and **Cho, H.** (2018). Validating effectiveness of subgroup identification for longitudinal data, *Statistics in Medicine* 37, 98-106.
- Kim, S. and **Cho, H.** (2018). Efficient estimation in the partially linear quantile regression model for longitudinal data, *Electronic Journal of Statistics* 12, 824-850.
- Shinozaki, G., Braun, P. R., Hing, B. W., Ratanatharathorn, A. D., Klisares, M., Heinzman, J., Nagahama, Y., Close, L., Sabbagh, S., Dlouhy, B. J., Howard, M., Kawasaki, H. and **Cho, H.** (2018). Epigenetics of delirium: potential role of DNA methylation change on cytokine genes in glia and blood along with aging, *Frontiers in Aging Neuroscience* 10, 1-10.

- Cho, H.** and Kim, S. (2017). Model specification test in semiparametric regression models for longitudinal data, *Journal of Multivariate Analysis* 160, 105-116.
- Cho, H.**, Wang, P. and Qu, A. (2017). Personalized treatment for longitudinal data using unspecified random-effects model, *Statistica Sinica* 27, 187-205.
- Cho, H.**, Kim, S. and Kim, M. O. (2017). Multiple quantile regression analysis of longitudinal data: Heteroscedasticity and efficient estimation, *Journal of Multivariate Analysis* 155, 334-343.
- Cho, H.**, Hong, H. G. and Kim, M. O. (2016). Efficient quantile marginal regression for longitudinal data with dropouts, *Biostatistics* 17, 561-575.
- Cho, H.** (2016). The analysis of multivariate longitudinal data using multivariate marginal models, *Journal of Multivariate Analysis* 143, 481-491.
- Cho, H.**, Son, S. J., Kim, S. and Park, J. (2016). A randomized comparison of medication and cognitive behavioral therapy for treating depression among low-income young minority women, *Medical Science Monitor* 22, 4947-4953.
- Cho, H.** and Qu, A. (2015). Efficient estimation for longitudinal data by combining large-dimensional moment conditions, *Electronic Journal of Statistics* 9, 1315-1334.
- Park, J., Lawrence, C.B. and **Cho, H.** (2015). A discursive assessment of narrative journalism using coh-matrix and principal component analysis, *Journal of the 21st Century Association of English Language and Literature* 28, 383-400.
- Dev, D., McBride, B., Speirs, K., Donovan, S. and **Cho, H.** (2014). Predictors of head start and child-care providers' healthful and controlling feeding practices with children aged 2 to 5 years, *Journal of the Academy of Nutrition and Dietetics* 114, 1396-1403.
- Dev, D., McBride, B., Fiese, B., Jones, B. and **Cho, H.** (2013). Risk factors for overweight/obesity in preschool children: an ecological approach, *Childhood Obesity* 9, 399-408.
- Cho, H.** and Qu, A. (2013). Model selection for correlated data with diverging number of parameters, *Statistica Sinica* 23, 901-927.

BOOK
REVIEW

- Cho, H.** (2015). Growth curve analysis and visualization using R, *The American Statistician* 69, 425-434.

GRANTS

Active Grants

- US Department of Veterans Affairs since 1/2021
 Title: Veterans Affairs Interagency Personnel Agreement (IPA) - Veteran's Rural Health Resource Center Project
 Role: Principal Investigator
 Effort: 10%
- Veterans Affairs Medical Research Foundation since 3/2020
 Title: Memorandum of Understanding (MOU) Veterans Affairs Center for Access & Delivery Research
 Role: Principal Investigator
 Effort: 10%
- The Michael J. Fox Foundation for Parkinson's Research since 2/2018
 Title: Parkinson's Progression Markers Initiative Statistics Core
 Role: Co-Investigator (Coffey, PI)
 Effort: 20%
- R01 AG077436 US Department of Health & Human Services, NIH since 6/2022
 Title: Emergency preparedness and support of caregivers of persons with dementia: The Disaster PrepWise study
 Role: Co-Investigator (Ashida, PI)
 Effort: 15%

R01 HD102381 US Department of Health & Human Services, NIH since 8/2020
Title: Targeted metabolic profiling to predict major neonatal morbidity in very preterm newborns
Role: Co-Investigator (Ryckman, PI)
Effort: 10%

RH220059 US Department of Defense since 9/2023
Title: Assessing the causal impact of cortical dysfunctions and interventions on speech-in-noise processing
Role: Co-Investigator (Choi, PI)
Effort: 5%

Completed Grants

R25 HL147231 National Heart, Lung, and Blood Institute 3/2019 - 6/2021
Title: Iowa Summer Institute in Biostatistics
Role: Co-Investigator (Zamba, PI)
Effort: 6%

R21 AB056716 National Institute of Aging 7/2018 - 6/2021
Title: Building a bridge (between clinical and community care): post-diagnosis support of persons with dementia and their family
Role: Co-Investigator (Ashida, PI)
Effort: 5%

U01 NS077352 National Institute of Neurological Disorders and Stroke 1/2018 - 9/2020
Title: Network for Excellence in Neuroscience Clinical Trials-Data Coordinating Center
Role: Co-Investigator (Coffey, PI)
Effort: 10%

Michigan Department of Transportation 1/2016 - 12/2017
Title: Evaluating the impacts of speed limit changes on identified case studies
Role: Co-Principal Investigator (Kwigizile, PI)
Effort: 8%

Transportation Research Center 5/2014 - 12/2015
Title: Big data analytics to aid developing livable communities
Role: Co-Investigator (Yang, PI)
Effort: 5%

Carver Trust Associate Professor Advancement Award, University of Iowa 2022
Title: Causal mediation and network analyses in randomized clinical trials
Role: Principal Investigator
Total amount of award:: \$9,930

Junior Faculty Research Opportunity Award, University of Iowa 2019
Title: Support to develop my academic career in longitudinal studies
Role: Principal Investigator
Total amount of award:: \$4,732

New Faculty Research Award, University of Iowa 2018
Title: Decision support tool: Initial severity-dependent longitudinal model
Role: Principal Investigator
Total amount of award:: \$8,326

Junior Faculty Research Opportunity Award, The University of Iowa 2018
Title: Decision support tool in randomized clinical trials
Role: Principal Investigator
Total amount of award: \$4,244

TEACHING
EXPERIENCE

Graduate courses

- BIOS 7310 Longitudinal Data Analysis Spring 2021, 2023
- BIOS 6310 Introductory Longitudinal Data Analysis Fall 2017 - 2022
- BIOS 6210 Applied Survival Analysis Spring 2019, 2022, 2024
- BIOS 5730 Biostatistical Methods Categorical Data Spring 2020, 2024
- STAT 6810 Survival Data Analysis Spring 2014, 2016
- STAT 6610 Multivariate Statistical Analysis Spring 2015, 2017
- STAT 5850 Applied Data Mining Fall 2015, 2016

Undergraduate courses

- STAT 3660 Data Analysis for Biosciences Summer 2014
- STAT 3640 Foundations of Data Analysis Fall 2013, Spring 2014
- STAT 2600 Data Analysis using R Fall 2014 - Summer 2017
- STAT 200 Statistical Analysis Fall 2011, 2012
- MAT 126 Calculus B Fall 2007

ADVISING

Doctoral Student Supervision

- Evan Steinberg Ph.D. in Biostatistics, expected 05/2026
- James Merchant Ph.D. in Biostatistics, expected 05/2025
- David-Erick Lafontant Ph.D. in Biostatistics, expected 12/2024
- Daren Kuwaye Ph.D. in Biostatistics, 12/2023
Thesis title: Empowering health data insights: Tools for anomaly detection and multivariate clustering
- Zhuangzhuang Liu Ph.D. in Biostatistics, 12/2022
Thesis title: Assessing the bivariate time-varying association between two binary variables in a longitudinal study
Current position: Senior biostatistician at AbbVie
- Xiaomeng Niu Ph.D. in Statistics, 5/2018
Thesis title: Statistical models for correlated data
Current position: Manager biostatistician at CSL Behring
- Nichole R. Andrews Ph.D. in Statistics, 5/2017
Thesis title: Subgroup analysis and growth curve models for longitudinal data
Current position: Faculty in Department of Statistics at Western Michigan University

Master Student Preceptorship Supervision

- Leianne Pallagao M.S. in Biostatistics, expected 05/2024
- Andrew Peterson M.S. in Biostatistics, 05/2023
- Evan Steinberg M.S. in Biostatistics, 05/2023
- Zhuangzhuang Liu Ph.D. in Biostatistics, 12/2022
- Ris Kallem M.S. in Biostatistics, 5/2022
- Daren Kuwaye M.S. in Biostatistics, 5/2019

Ph.D. Thesis Committee Member

- Rawabi Aljadani Ph.D. in Epidemiology, expected 5/2025
- Tao Xu Ph.D. in Epidemiology, expected 5/2024
- Abhismitha Ramesh Ph.D. in Epidemiology, expected 5/2024
- Javier Flores Ph.D. in Biostatistics, 5/2021
- Clarissa Shaw Ph.D. in Nursing, 5/2021
- Ashamsa Aryal Ph.D. in Occupational & Environmental Health, 12/2020
- Elizabeth Jasper Ph.D. in Epidemiology, 12/2019
- Yang Pan Ph.D. in Marketing, 8/2019
- Bezawit Teshome Agiro Ph.D. in Economics, 5/2018

- Ama Agyeiwaa Abrokwah Ph.D. in Economics, 8/2017
- Director of Data Science Major & Minor Programs 9/2014 - 7/2017
- Coordinate programs and supervise undergraduate students at Western Michigan
- DataFest Team Advisor 9/2016 - 4/2017
- Forster students in the Data Science program and organize a team
- Win the Grand Prize at DataFest, Chicago, 4/2017

UNIVERSITY SERVICE	<ul style="list-style-type: none"> Biostatistics colloquium committee since 2022 Ph.D. comprehensive exam committee in Epidemiology since 2021 Ph.D. comprehensive exam committee in OEH since 2021 Ph.D. comprehensive exam committee in Biostatistics since 2020 Ph.D. comprehensive exam review committee since 2019 Admissions and student recruitment committee since 2018 Student awards committee since 2018 M.S. core exam committee since 2018 Internal peer review committee 2021 - 2023 Woolson lecture committee 2018 - 2019 Open-rank faculty search committee 2017 - 2019 Ph.D. and M.S. curriculum committee 2017 - 2018 Computing development committee 2015 - 2017 Program review and development committee 2014 - 2017 Statistics colloquium committee 2013 - 2017 Ph.D. comprehensive and qualifying exam committee 2015 - 2017 Junior faculty search committee 2014 - 2016 Chair appointment executive committee 2015
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PROFESSIONAL SERVICE	<ul style="list-style-type: none"> <u>Associate Editor</u> - Communications for Statistical Applications and Methods since 2020 <u>Scientific Program Committee</u> - International Conference on Economics and Statistics since 2022 <u>Program Chair</u> 2/2016 - Great Lakes International Symposium: Interdisciplinary Research in Data Science <u>Organizer for Invited Session</u> - Modern development in longitudinal and survival data analyses, <i>EcoSta</i>, Tokyo, Japan 7/2023 - New horizons in longitudinal studies, <i>EcoSta</i>, Kyoto, Japan 6/2022 - Recent advancement in complex data, <i>WNAR meeting</i>, Anchorage, Ak 6/2020 - Recent advances in statistical modeling for multivariate/correlated/time-varying longitudinal data, <i>Joint Statistical Meetings</i>, Denver, Co 7/2019 - Statistical methods for time-varying/stratified correlated data analysis, <i>WNAR meeting</i>, Portland, OR 6/2019 - Modern developments in statistical analysis, <i>Korean Statistical Society Conference</i>, Seoul, Korea 5/2017 <u>Session Chair</u> - Modern development in longitudinal and survival data analyses, <i>EcoSta</i>, Tokyo, Japan 7/2023 - Recent advances in robust estimation and modeling, <i>Korean Statistical Society Conference</i>, Busan, Korea 6/2023 - Statistical methods for time-varying/stratified correlated data analysis, <i>WNAR meeting</i>, Portland, OR 6/2019
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- Modern topics in applied statistics, *Korean Statistical Society Conference*, Daejeon, Korea, 11/2016
- Rank-Based & Nonparametric Procedures, *International Conference on Robust Rank Based and Nonparametric Methods*, Kalamazoo, MI, 4/2015

Data Safety Monitoring Board Member of R01 grants since 2019

Review of NSF Proposals 2018

Journals Refereed

- Methodological Journals

Statistics in Medicine (8), Statistica Sinica (6), Communications for Statistical Applications and Methods (5), Journal of the American Statistical Association (4), Electronic Journal of Statistics (4), Biometrics (2), Computational Statistics and Data Analysis (2), Journal of Biopharmaceutical Statistics (2), Journal of Multivariate Analysis (2), Journal of the Korean Statistical Society (2), Journal of Applied Statistics (2), Journal of the Royal Statistical Society: Series B (1), Biometrika (1), Statistics and Probability Letters (1), Journal of Statistical Computation and Simulation (1), Multivariate Behavioral Research (1), Annals of the Institute of Statistical Mathematics (1), Communications in Statistics - Simulation and Computation (1), Statistics and Computing (1), International Journal of Statistics (1), Statistical Science (1), Metrika (1), Statistical Methods and Applications (1), Science China Mathematics (1)

- Collaborative Journals

Journal of the American Medical Association (3), BMJ Open (3), Brain and Behavior (1), Family Medicine and Community Health Journal (1), Precision Clinical Medicine (1), Liver Transplantation (1), Medical Science Monitor (1), BMC Psychiatry (1)

TALKS AND PRESENTATIONS

Longitudinal causal modeling: Dissecting treatment initiation timing and its effects on outcomes, *Kansas State University*, Manhattan, KS, 12/2023.

A different perspective on unsupervised learning in longitudinal studies, *EcoSta*, Tokyo, Japan, 8/2023.

Unsupervised learning in longitudinal studies, *Duksung Women's University*, Seoul, Korea, 7/2023.

A different perspective on unsupervised learning in longitudinal studies, *Korean Statistical Society Conference*, Busan, Korea, 6/2023.

Longitudinal study on bivariate time-varying associations between two binary variables, *Korean Statistical Society Conference*, Seoul, Korea, 6/2022.

Modeling the population mean outcome trajectory in an observational study with a guideline-based intervention, *Indiana University-Purdue University Indianapolis*, Indianapolis, IN, 1/2022.

Modeling the population mean outcome trajectory in an observational study with a guideline-based intervention, *University of California at San Francisco*, San Francisco, CA, 11/2021.

Evaluating causal effects of timing of treatment in marginal structural models for longitudinal data, *Econometrics and Statistics*, Hong Kong, 6/2021.

Evaluating causal effects of timing of intervention in observational studies, *Korean Statistical Society Conference*, Seoul, Korea, 12/2020.

Evaluating the population mean trajectory of an outcome in longitudinal studies with a subject-specific time of an event, *University of Nebraska Medical Center*, Omaha, NE, 10/2019.

Statistical inference in a growth curve quantile regression model, *Joint Statistical Meetings*, Denver, CO, 8/2019.

Uses and new developments of quantile regression analysis of longitudinal data, *Rush University*, Chicago, IL, 6/2019.

Risk predictive modeling, *Statistics Korea*, Daejeon, Korea, 5/2019.

Various statistical models for longitudinal data, *Yonsei University*, Wonju, Korea, 5/2019.

Risk predictive modeling with longitudinal data, *Korean Biostatistics Meeting*, Seoul, Korea, 5/2019.

Adjusting a subject-specific timing of event in longitudinal studies, *Joint Statistical Meetings*, Vancouver, Canada, 8/2018.

Statistical methods with varying coefficient models in biomedical studies, *Yeonsei University*, Seoul, Korea, 7/2018.

Statistical methods with varying coefficient models, *Young Statistician's Meeting*, Seoul, Korea, 7/2018.

Statistical inference in a growth curve quantile regression model for longitudinal data, *International Biometrics Conference*, Barcelona, Spain, 7/2018.

Statistical methods with varying coefficient models in longitudinal studies, *University of Iowa*, Iowa City, IA, 3/2018.

Statistical methods with varying coefficient models in longitudinal studies, *University of Illinois*, Champaign, IL, 3/2018.

Various statistical models for longitudinal data with application to a randomized controlled trial, *University of Iowa*, Iowa City, IA, 2/2018.

Statistical inference in a growth curve quantile regression model for longitudinal data, *University of Iowa*, Iowa City, IA, 10/2017.

Statistical inference in a growth curve quantile regression model for longitudinal data, *Kansas State University*, Manhattan, KS, 10/2017.

Various statistical models for longitudinal data with application to a randomized controlled trial, *Young Statistician's Meeting*, Yangpeong, Korea, 7/2017.

Growth curve quantile regression model for longitudinal data, *Yonsei University*, Seoul, Korea, 6/2017.

Growth curve quantile regression model for longitudinal data, *Statistics Korea*, Daejeon, Korea, 6/2017.

Growth curve quantile regression model for longitudinal data, *Korea University*, Seoul, Korea, 5/2017.

Various statistical models for longitudinal data with application to a randomized controlled trial, *Korean Statistical Society Conference*, Seoul, Korea, 5/2017.

Efficient quantile marginal regression for longitudinal data with dropouts, *San Diego State University*, San Diego, CA, 1/2017.

Efficient quantile marginal regression for longitudinal data with dropouts, *California State Polytechnic University*, Pomona, CA, 1/2017.

Efficient quantile marginal regression for longitudinal data with dropouts, *University of Iowa*, Iowa City, IA, 1/2017.

Efficient quantile marginal regression for longitudinal data with dropouts, *Sungkyunkwan University*, Seoul, Korea, 11/2016.

Consistent moment selection from high-dimensional moment conditions, *Western Michigan University*, Kalamazoo, MI, 9/2016.

Efficient quantile marginal regression for longitudinal data with dropouts, *ICSA Applied Statistics Symposium*, Atlanta, GA, 6/2016.

Efficient estimation for longitudinal data with multiple responses: application to transportation safety study, *Michigan State University*, East Lansing, MI, 1/2016.

Efficient quantile regression for longitudinal data with dropouts, *Western Michigan University*, Kalamazoo, MI, 1/2016.

Quantile marginal regression for longitudinal data with dropouts, *Michigan State University*, East Lansing, MI, 1/2016.

Quantile regression models for longitudinal data, *Sookmyung Women's University*, Seoul, Korea, 1/2016.

Quantile regression models for longitudinal data, *The University of Suwon*, Hwaseong, Korea, 12/2015.

Weighted varying-coefficient models for longitudinal data, *Western Michigan University*, Kalamazoo, MI, 12/2015.

Efficient estimation for longitudinal data by combining high-dimensional moment conditions, *Joint Statistical Meetings*, Seattle, WA, 8/2015.

Multivariate marginal model for multivariate longitudinal data, *Spring Research Conference*, Cincinnati, OH, 5/2015.

Varying-coefficient modeling for longitudinal data, *Ajou Univeristy*, Suwon, Korea, 12/2014.

Subgroup identification for longitudinal data with unspecified random effects, *Joint Statistical Meetings*, Boston, MA, 8/2014.

Subgroup identification for longitudinal data, *Western Michigan University*, Kalamazoo, MI, 5/2014.

Personalized treatment for longitudinal data, *ENAR meeting*, Baltimore, MD, 3/2014.

Variable selection for longitudinal data with diverging number of parameters, *Korean Statistical Society Conference*, Seoul, Korea, 11/2013.

Big data meets text-mining, *International Conference on Text-mining*, Suwon, Korea, 10/2013.

Model selection for correlated data with diverging number of parameters, *International Workshop on the Perspectives on High-dimensional Data Analysis III*, Vancouver, Canada, 5/2013.

Model selection for correlated data with diverging number of parameters, *University of Missouri*, Saint Louis, MI, 1/2013.

Model selection for correlated data with diverging number of parameters, *Western Michigan University*, Kalamazoo, MI, 1/2013.

Model selection for correlated data with diverging number of parameters, *Marquette University*, Milwaukee, WI, 12/2012.

Consistent moment selection from high-dimensional moment conditions, *Ajou University*, Suwon, Korea, 11/2012.

Consistent moment selection from high-dimensional moment conditions, *Joint Statistical Meetings*, San Diego, CA, 8/2012.

Efficient moment selection from high-dimensional moment conditions, *Midwest Statistics Research Colloquium*, Madison, WI, 3/2012.

Model selection for correlated data with diverging number of parameters, *ENAR meeting*, Miami, FL, 3/2011.

AFFILIATIONS

American Statistical Association
Institute of Mathematical Statistics
International Biometric Society (ENAR)
Korean International Statistical Society
Korean-American Scientists and Engineers Association