Lianne K. Siegel

siege245@umn.edu

EDUCATION

University of Minnesota, Minneapolis, MN April 2021
Ph.D. in Biostatistics

Carleton College, Northfield, MN June 2017
B.A. in Mathematics/Statistics *Magna Cum Laude*

EMPLOYMENT

Assistant Professor May 2021 - Present
University of Minnesota, School of Public Health, Division of Biostatistics and Health Data Science

Graduate Research Assistant September 2017 - May 2021
*University of Minnesota, School of Public Health, Division of Biostatistics**
Supervisor: Haitao Chu, PhD, MD

Summer Intern June 2016 - August 2016
Fred Hutchinson Cancer Research Center
Supervisors: Elizabeth Brown, PhD and Jennifer Balkus, PhD

Undergraduate Research Assistant September 2015 - June 2017
Carleton College Alumni Annual Fund
Supervisor: Alyse Simondet

**Division of Biostatistics and Health Data Science as of Oct 24, 2023*

ADDITIONAL TRAINING

Training Program in Heart, Lung, and Blood Disease September 2019 - May 2021
Supervisor: James D. Neaton, PhD at University of Minnesota
National Heart, Lung, and Blood Institute T32HL129956

Summer Institute for Training in Biostatistics (SIBS) June 2015 - July 2015
Supervisor: Tanya Kenkre, PhD, MPH at University of Pittsburgh

PUBLICATIONS

* denotes authors contributed equally
† denotes corresponding author, underline denotes student advised/mentored by Dr. Siegel

Methodological:

1. Wang, Z., Murray, T.A., Han, W., Lin, L., **Siegel, L.**, Chu, H. (In press) Tipping Point Analysis in Network Meta-Analysis. *Accepted at Research Synthesis Methods.*
2. Jiang, Z., Chu, H., Wang, Z., Murad, H.M., **Siegel, L.**† (2024) Estimating reference intervals from a meta-analysis using quantile regression. *BMC Medical Research Methodology*; 24(1):251. doi: 10.1186/s12874-024-02378-0.

3. Tong, J., Shen, Y., Xu, A., He, X., Luo, C., Edmondson, M., Zhang, D., Lu, Y., Yan, C., Li, R. **Siegel, L.**, Sun, L., Shenkman, E.A., Morton, S.C., Malin, B.A., Bian, J., Asch, D.A., Chen, Y. (2024) Evaluating site-of-care related racial disparities in kidney graft failure using a novel federated learning framework. *Journal of the American Medical Informatics Association*; 31(6):1303-1312. doi: 10.1093/jamia/ocae075.

4. Cao, W., Chu, H., Hanson, T., **Siegel, L.**† (2024) "A Bayesian Nonparametric Meta-Analysis Model for Estimating the Reference Interval." *Statistics in Medicine*; 1-15. doi: 10.1002/sim.10001.

5. **Siegel, L.K.***, Silva, M.*, Lin, L., Chen, Y., Liu, Y., Chu, H. (2023) Choice of Link Functions for Generalized Linear Mixed Models in Meta-Analyses of Proportions. *Research Methods in Medicine and Health Sciences*; 0(0). doi:10.1177/26320843231224808.

6. Wang, Z., Liu, Y., Chen, Y., **Siegel, L.**, Cappelleri, J., Chu, H. (2024) Double-Negative Results Matter: A Re-Evaluation of Sensitivities for Detecting SARS-CoV-2 Infection Using Saliva Versus Nasopharyngeal Swabs. *The American Journal of Epidemiology*; 193(3): 548-560. doi: 10.1093/aje/kwad212.

7. Liu, Z., Al Amer, F.M., Xiao, M., Xu, C., Furuya-Kanamoria, L., Hong, H., **Siegel, L.**, Lin, L. (2023). The normality assumption on between-study random defects was questionable in a considerable number of Cochrane meta-analyses. *BMC Medicine*; 21(1):1-12. doi: 10.1186/s12916-023-02823-9.

8. **Siegel, L.**, Chu, H. (2023) "An improved Bayesian approach to estimating the reference interval from a meta-analysis." *Research Synthesis Methods*; 14(4):639-646. doi: 10.1002/jrsm.1624.

9. Jiang, Z.*, Cao, W.*, Chu, H., Bazerbachi, F., **Siegel, L.**† (2023) "RIMeta: An R Shiny Tool for estimating the reference interval from a meta-analysis." *Research Synthesis Methods*; 14(3):468-478. doi: 10.1002/jrsm.1626.

10. **Siegel, L.**, Murad, M.H., Riley, R., Bazerbachi, F., Wang, Z., Chu, H. (2022) "A guide to estimating the reference range from a meta-analysis using aggregate or individual participant data." *American Journal of Epidemiology* 191(5): 948-956; doi:10.1093/aje/kwac013.

11. Rott, K.W., Shi, A., Lin, L., Hodges, J.S., **Siegel, L.**, Chen, Y., Chu, H. (2021) "Arm-Based Bayesian Network Meta-Analysis of Binary Outcome Data Using SAS PROC BGLIMM." *Research Synthesis Methods*; 12(6):692-700. doi: 10.1002/jrsm.1513.

12. Cao, W., **Siegel, L.**, Zhou, J., Zhu, M., Tong, T., Chen, Y., Chu, H. (2021), "Estimating the Reference Interval from a Fixed Effects Meta-Analysis." *Research Synthesis Methods*; 12(5):630-640. doi: 10.1002/jrsm.1488.

13. **Siegel, L.**, Murad, M.H., Chu, H. (2021) "Estimating the reference range from a meta-analysis." *Research Synthesis Methods*; 12(2):148-160. doi: 10.1002/jrsm.1442.

14. **Siegel, L.**, Rudser, K., Sutcliffe, S., Markland, A., Brubaker, L., Gahagan, S., Stapleton, A.E., Chu, H. (2020) "A Bayesian Multivariate Meta-Analysis of Prevalence Data". *Statistics in Medicine*; 39(23):3105-3119. doi: 10.1002/sim.8593.

Collaborative:

1. Knowlton, K.U.*, **Siegel, L.***, Barkauskas, C.E., Bhagani, S.R., Dharan, N.J., et al. for the STRIVE ACTIV-3/TICO Study Group. (In press) Passive immunotherapy for adults hospitalized with COVID-19: an individual participant data meta-analysis of six randomized controlled trials. *Accepted at PLOS Medicine.*

2. Havens, J.P., Kang, N., Chung, L., Fletcher, C., Crew, P.. Nordwall, J., **Siegel, L.**, Grund, B., Losso, M., Vasudeva, S., Molina, K., Ginde, A., Baker, J. for the INSIGHT STRIVE Study Group

(2025) Implementation of an online drug-drug interaction screener for STRIVE ensitrelvir trial for COVID-19. *Open Forum Infectious Diseases*;, ofaf327 doi: 10.1093/ofid/ofaf327.

3. Shyu, D., Ingraham, N.E., Linke, C.A., **Siegel, L.**, Larson, J.A., Benson, A.R., Pendleton, K.M. (In press) Overview of peripheral vasopressor usage in an academic health system. *Accepted at the Annals of the American Thoracic Society.*

4. Mourad, A., Grandits, G., **Siegel, L.**, Engen, N., Barkauskas, C., Eriobu, N.., Jain, M., Jensen, T., Ginde, A., Higggs, E, Knox, D., Kitonsa, J., Kim, K., Malin, J., Rapti, V., Price, A.D., Mena Lora, A., Matthews, G. , Mylonakis, E., Murray, T. Sandkovsky, U., Paredes, R., Ramachandruni, S., Reilly, C., Vock, D., Williamson, J., Young, B., Self. W., Lundgren, J., Holland, T. (2025) Long-term outcomes of passive immunotherapy for COVID-19: A pooled analysis of a large multinational platform randomized clinical trial. *Clinical Microbiology and Infection*; doi: 10.1016/j.cmi.2025.02.002.

5. Golob, L., Mercado-Munoz, Y., Liu, W., Singh, A., Hodges, J., **Siegel, L.**, Morero, H., Gao, Z., Tipp, A., Simon, S.L., Sarafoglou, K. (2024) *The Journal of Clinical Endocrinology & Metabolism*; dgae836, doi: 10.1210/clinem/dgae836.

6. Tignanelli, C.J., Shah, S., Vock, D., **Siegel, L.**, Serrano, C., Haut, E., Switzer, S., Martin, C., Rizvi, R., Jenkins, P.C., Lemke, N., Thyvalikakath, T., Osheroff, J.A., Torres, D., Vawdrey, D., Callcut, R., Butler, M., Melton, G.B. (2024) A pragmatic stepped-wedge, hybrid type II trial of interoperable clinical decision support to improve venous thromboembolism prophylaxis for patients with traumatic brain injury. *Implementation Science*; 19(57). Doi: 10.1186/s13012-024-01386-4.

7. Wick, K., **Siegel, L.**, Oldmixon, C., Lundgren, J., Thompson, T.B., Jones, C., Leroux, C., Matthay, M. (In press) Longitudinal Importance of the Soluble Receptor for Advanced Glycation End-Productions in Non-intubated Hospitalized Patients with COVID-19 Pneumonia. *American Journal of Physiology Lung Cellular and Molecular Physiology*; doi: 10.1152/ajplung.00350.2023.

8. Morris, R.S., Al Tannir, A.H., Chipman, J., Charles, A., Ingraham, N., Kalinoski, M., Bolden, L., **Siegel, L.**, Tignanelli, C. (In press) Deriving a Definition of Chronic Critical Illness: ICU Stay of 10 Days. *The American Journal of Surgery.* doi: 10.1016/j.amjsurg.2024.05.008.

9. Bramante, C.T., Beckman, K.B., Mehta, T., Karger, A.B., Odde, D.J., Tignanelli, C.J., Buse, J.B., Johnson, D.M., Watson, R.H.B., Daniel, J.J., Liebovitz, D.M., Nicklas, J.M, Cohen, K., Puskarich, M.A., Belani, H.K., **Siegel, L.K.**, Klatt, N.R., Anderson, B., Fenno, S.L., Avula, N., Reddy, N.V., Erickson, S.M., Fricton, R.D., Lee, S., Griffiths, G., Pullen, M.F., Thompson, J.L., Sherwood, N., Murray, T.A., Rose, M.R., Boulare, D.R.*, Huling, J.D.* (2024) Favorable Antiviral Effect of Metformin on Severe Acute Respiratory Syndrome Coronavirus 2 Viral Load in a Randomized, Placebo-Controlled Clinical Trial of Coronavirus Disease 2019. *Clinical Infectious Diseases*; ciae159. doi: 10.1093/cid/ciae159

10. King, S., Proper, J., **Siegel, L.K.**, Tignanelli, C.J., Chipman, J.G., Ingraham, N.E., Ho, J. (2024) Acute Uncomplicated Appendicitis Treatment Strategies and Mortality Based on Admission Diagnoses: An Observational Study. *Surgical Infections*; 25(1): 56-62. doi: 10.1089/sur.2023.249.

11. Bramante, C.T., Buse, J.B., Liebovitz, D., Nicklas, J., Puskarich, M.A., Cohen, K., Belani, H., Anderson, B., Huling, J.D., Tignanelli, C., Thompson, J.L., Pullen, M., Wirtz, E.L., **Siegel, L.**, Proper, J., Odde, D.J., Klatt, N., Sherwood, N., Lindberg, S., Karger, A., Beckman, K.B., Erickson, S., Fenno, S., Hartman, K., Rose, M., Mehta, T., Patel, B., Griffiths, G., Bhat, N. Murray, T.A., Boulware, D.R.(2023) Outpatient treatment of Covid-19 and the development of Long Covid over 10 months: A multi-center, quadruple-blind, parallel group randomized phase 3 trial. *The Lancet Infectious Diseases*; doi: 10.1016/S1473-3099(23)00299-2.

12. Ikramuddin, F., Melnik., K., Ingraham, N.E., Nguyen, N., Siegel, L., Usher, M.G., Tignanelli, C.J., Morse, L. (2023) Predictors of Discharge Disposition and Mortality following Hospitalization with

SARS-CoV-2 Infection. *PLOS ONE*; 18(4): e0283326. doi: 10.1371/journal.pone.0283326.

13. Wolters, E.A., Rabe, K.E., **Siegel, L.**, Butts, J, Klein, ME. Histopathologic Features of Breast Tissue From Transgender Men and Their Associations With Androgen Therapy *American Journal of Clinical Pathology*; 159(1):43-52. doi: 101093/ajcp/aqac123

14. Proper, J.L., Wacker, D.A., Shaker, S., Heisdorffer, J., Shaker, R.M., Shiue, L.T., Pendleton, K.M., **Siegel, L.K.**, Reilkoff RA. Patient Outcomes and Unit Composition With Transition to a High-Intensity ICU Staffing Model: A Before-and-After Study. *Critical Care Explorations*; 5(2):E0864. doi: 10.1097/CCE.0000000000000864

15. Boulware, D.R., Murray, T.A., Proper, J.L., Tignanelli, C.J., Buse, J.B., Liebovitz, D.M., Nicklas, J.M., Cohen, K., Puskarich, M.A., Belani, H.K., **Siegel, L.K.**, Klatt, N.R., Odde, D.J., Karger, A.B., Ingraham, N.E., Hartman, K.M., Rao, V., Hagen, A.A., Patel, B., Fenno, S.L., Avula, N., Reddy, N.V., Erickson, S.M., Lindberg, S., Fricton, R., Lee, S., Zaman, A., Saveraid, H.G., Tordsen, W.J., Pullen, M.F., Sherwood, N.E., Huling, J.D., Bramante, C.T., COVID-OUT study team. Impact of SARS-CoV-2 vaccination and booster on COVID-19 symptom severity over time in the COVID-OUT trial. *Clinical infectious diseases*; 76(3):e1-e9 doi: 101093/cid/ciac772

16. Bramante, C.T., Huling, J.D., Tignanelli, C.J., Buse, J.B., Liebovitz, D.M., Nicklas, J.M., Cohen, K., Puskarich, M.A., Belani, H.K., Proper, J.L., **Siegel, L.K.**, Klatt, N.R., Odde, D.J., Luke, D.G., Anderson, B., Karger, A.B., Ingraham, N.E., Hartman, K.M Rao, V., Hagen, A.A., Patel, B., Fenno, S.L., Avula, N., Reddy, N.V., Erickson, S.M., Lindberg, S., Fricton, R., Lee, S., Zaman, A., Saveraid, H.G., Todsen, W.J., Pullen, M.F., Biros, M., Sherwood, N.E., Thompson, J.L., Boulware, D.R., Murray, T.A., for the COVID-OUT Trial Team. (2022) Randomized Trial of Metformin, Ivermectin, and Fluvoxamine for Covid-19. *The New England Journal of Medicine*; 387(7):599-610. doi: 10.1056/NEJMoa2201662.

17. ACTIV-3/TICO Study Group (2022) Efficacy and Safety of Ensovibep for Adults Hospitalized With COVID-19. *Annals of Internal Medicine*; 175(9):1266-1274. doi: 10.7326/M22-1503

18. Abdelwahab, N., Ingraham, N.E., Nguyen, N., **Siegel, L.**, Silverman, G., Shekhar Sahoo, H., Pakhomov, S., Morse, L.R., Billings, J., Usher, M.G., Melnik, T.E., Tignanelli, C.J., Ikramuddin, F. (2022) Predictors of Post-Acute Sequelae of COVID-19 Development and Rehabilitation: A Retrospective Study. *Archives of Physical Medicine and Rehabilitation*; 103(10):2001-2008. doi: 10.1016/j.apmr.2022.04.009

19. Douin, D.J., **Siegel L.**, Grandits, G., Phillips, A., Aggarwal, N.R., Baker, J., Brown, S.M., Chang, C.C,, Goodman, A.L., Grund, B., Higgs, E.S., Hough, C.L., Murray, D.D., Paredes, R., Parmar, M., Pett, S., Polozzotto, M.N., Sandkovsky, U., Self, W.H., Young, B.E., Babiker, A.G., Davey, V.J., Kan, V., Gelijns, A.C., Matthews, G., Thompson, B.T., Lane, H.C., Neaton, J.D., Lundgren, J.D., Ginde, A.A.. (2022) Evaluating primary endpoints for COVID-19 therapeutic trials to assess recovery. *Am J Resp Crit Care Med*; 206(6):730-739. doi: 10.1164/rccm.202112-2836OC.

20. Wick, K.D., **Siegel, L.**, Neaton, J.D., Oldmixon, C., Lundgren, J., Dewar, R.L., Lane, H.C., Thompson, B.T., Matthay, M.A. (2022), "RAGE has potential pathogenetic and prognostic value in non-intubated hospitalized patients with COVID-19." *JCI Insight*. doi: 10.1172/jci.insight.157499.

21. Bramante, C.T., Proper, J.L., Boulware, D.R., Karger, A., Murray, T., Rao, V., Hagen, A., Tignanelli, C.J., Puskarich, M., Cohen, K., Liebovitz, D.M., Klatt, N.R., Broedlow, C., Hartman, K.M., Nicklas, J., Ibrahim, S., Zaman, A., Saveraid, H., Belani, H., Ingraham, N., Christensen, G., **Siegel, L.**, Sherwood, NE., Friction, R., Lee, S., Odde, D.J., Buse, J.B., Huling, J. Vaccination against SARS-CoV-2 is associated with a lower viral load and likelihood of systemic symptoms. (2022) *Open Forum Infectious Diseases*; ofac066, doi: 10.1093/ofid/ofac066.

22. Ingraham, N.E., King, S., Proper, J., **Siegel, L.**, Zolfaghari, E., Murray, T., Vakayil, V., Sheka, A., Feng, R., Guzman, G., Samit, R., Muddappa, D., Usher, M., Chipman, J., Tignanelli, C.,

Pendleton, K. (2021), "Morbidity and Mortality Trends in Pancreatitis: An Observational Study." *Surgical Infections*. epub ahead of print. doi: 10.1089/sur.2020.473.

23. Lusczek, E.R., Ingraham, N.E., Karam, B., Proper, J., **Siegel, L.**, Helgeson, E., Lofti-Emran, S., Zolfaghari, E.J., Jones, E., Usher, M., Chipman, J., Dudley, R.A., Benson, B., Melton, G.B., Charles, A., Lupei, M.I., Tignanelli, C.J. (2021) "Characterizing COVID-19 Clinical Phenotypes and Associated Comorbidities and Complication Profiles." *PLOS ONE* 16(3): e0248956. doi: 10.1371/journal.pone.0248956.

24. Chauhan, A., **Siegel, L.**, Freese, R., Racila, E., Stewart , J. , III, Amin, K. (2021) "Performance of Ventana SP263 PD-L1 Assay in Endobronchial Ultrasound Guided-Fine Needle Aspiration Derived Non-Small Cell Lung Carcinoma Samples." *Diagnostic Cytopathology*; 49:355-362. doi: 10.1002/dc.24654.

25. Toyama, A., **Siegel, L.**, Nelson, A.C., Najmuddin, M., Bu, L., LaRue, R., Henzler, C., Caicedo-Granados, E., Giubellino, A., Li, F. (2019) "Analyses of Molecular and Histopathologic Features and Expression of PRAME by Immunohistochemistry in Mucosal Melanomas." *Modern Pathology*; 32:1727-1733. doi:10.1038/s41379-019-0335-4.

PRESENTATIONS:

Invited Conference Presentations:

1. **Siegel, L.** "Study-level confounding in meta-analysis of clinical trials," presentation given as an invited talk at WNAR Annual Meeting, Fort Collins, CO, June 2024.

2. **Siegel, L.** "An overview and comparison of recently proposed methods for estimating the reference interval from a meta-analysis," presentation given as an invited talk at WNAR Annual Meeting, Anchorage, AK, June 2023.

3. **Siegel, L.**, Murad, M.H., Riley, R., Bazerbachi, F., Wang, Z., Chu, H. "Estimating the Reference Range from a Meta-Analysis using Aggregate or Individual Participant Data," presentation given as an invited talk for the International Conference on Advances in Interdisciplinary Statistics and Combinatorics (Virtual Conference), October 2021.

4. **Siegel, L.**, Murad, M.H., Chu, H. "Estimating the Reference Range from a Meta-Analysis," presentation given as an invited talk at ICSA Applied Statistics Symposium (Virtual Conference), December 2020.

Contributed Conference Presentations:

1. Cao, W., Chu, H., Hanson, T., **Siegel, L.** "A Bayesian nonparametric meta-analysis model for estimating the reference interval," presentation given at the Society for Research Synthesis Methods Annual Meeting, Paris, France, July 2023.

2. **Siegel, L.**, Murad, M.H., Riley, R., Bazerbachi, F., Wang, Z., Chu, H. "Estimating the Reference Range from a Meta-Analysis using Aggregate or Individual Participant Data," presentation given during a concurrent session at the Conference on Statistical Practice (Virtual Conference), February 2022.

3. **Siegel, L.**, Rudser, K., Sutcliffe, S., Markland, A., Brubaker, L., Gahagan, S., Stapleton, A.E., Chu, H. "A Bayesian Multivariate Meta-Analysis of Prevalence Data," presentation given as contributed paper at ENAR Spring Meeting (Virtual Conference), March 2020.

4. **Siegel, L.**, Rudser, K., Sutcliffe, S., Markland, A., Brubaker, L., Gahagan, S., Stapleton, A.E., Chu, H. "A Bayesian Multivariate Meta-Analysis of Prevalence Data," presentation given as contributed paper at Joint Statistical Meetings, Denver, CO, July 2019.

5. **Siegel, L.**, Rudser, K., Sutcliffe, S., Markland, A., Brubaker, L., Gahagan, S., Stapleton, A.E., Chu, H. "A Bayesian Multivariate Meta-Analysis of Prevalence Data," presentation given at Society for Research Synthesis Methodology Annual Meeting, Chicago, IL, July 2019.

Departmental Seminars:

1. Hu, J., Babiker, A., Reilly, C., **Siegel, L.K.** "Type I Error Control and Interim Monitoring for Co-Primary Hypotheses Involving a Subgroup," presentation given as an invited talk for the Carleton College Math/Stats Colloquium Series (Northfield, MN).
2. Cao, W., Chu, H., Hanson, T., **Siegel, L.** "A Bayesian nonparametric meta-analysis model for estimating the reference interval," presentation given as an invited talk for the University of Arizona Department of Epidemiology and Biostatistics (Virtual). August 2023.
3. **Siegel, L.**, Murad, M.H., Riley, R., Bazerbachi, F., Wang, Z., Chu, H. "Estimating the Reference Range from a Meta-Analysis using Aggregate or Individual Participant Data," presentation given as an invited talk for the Penn State College of Medicine Department of Public Health Sciences (Virtual), December 2021.
4. **Siegel, L.**, Murad, M.H., Riley, R., Bazerbachi, F., Wang, Z., Chu, H. "Estimating the Reference Range from a Meta-Analysis using Aggregate or Individual Participant Data," presentation given as an online seminar for University of Minnesota Division of Biostatistics, February 2021.
5. **Siegel, L.**, Murad, M.H., Riley, R., Bazerbachi, F., Wang, Z., Chu, H. "Estimating the Reference Range from a Meta-Analysis," presentation given as an online seminar for Washington University in St. Louis Division of Public Health, January 2021.

GRANT SUPPORT

Currently Funded Grants:

1. NIH R01-DA046320 07/31/21-01/31/30
   Title: *Innovative statistical methods for evaluating the impact of tobacco product standards*
   Role: **Co-Investigator**
   PI: Joseph Koopmeiners (contact), David Vock
   Total Award: $1,803,175
2. 1P20MD019990-01 9/23/24-6/30/27
   Title: *Mni Sota Center for Climate Change and Health*
   Role: **Co-Investigator**
   PI: Bruce Alexander (contact), Jessica Hellmann
   Total Award: $3,581,865
3. AHRQ R18HS028583 8/5/22-7/31/25
   Title: *Evaluation of the SCALED (SCaling AcceptabLE cDs) Approach for the Implementation of the Interoperable CDS for Venous Thromboembolism Prevention*
   Role: **Co-Investigator**
   PI: Christopher Tignanelli
   Total Award: $2,994,478
4. Leidos/NIH Contract: 18X107CF5 9/29/20-ongoing
   Title: *COVID-19 Out-Patient Early Treatment (INSIGHT 012)*
   Role: **Statistician**
   PI: Cavan Reilly
   Total Award: $20,889,332
5. Leidos/NIH Contract: 18X107CF6 5/1/22-5/30/25
   Title: *A Multicenter, Adaptive, Randomized, Controlled Trial Platform to Evaluate Safety and*

Efficacy of Strategies and Treatments for Hospitalized Patients with Respiratory and Viral Diseases
Role: **Statistician**
PI: Cavan Reilly
Total Award: $110,832,885

6. Leidos/NIH Contract:18X107CF6 6/1/20-ongoing
Title: *ACTIV-3 INSIGHT 014*
Role: **Statistician**
PI: Cavan Reilly
Total Award: $152,476,156

Completed Grants:

1. NIH R01-LM012982 9/10/19-5/31/25
Title: *Statistical Methods and Software for Multivariate Meta-analysis*
Role: **Principal Investigator** (3/29/2022 - 5/31/25; MPI: Lifeng Lin)
Total Award: $1,314,881

2. Hennepin Healthcare Research Institute: 14391-01 8/1/22-3/31/24
Title: *Health Trends Across Communities (HTAC)*
Role: **Statistician**
PI: Paul Drawz
Total Award: $457,305

3. Hennepin Healthcare Research Institute: 186591 1/1/22-12/31/24
Title: *COVID-19 MN EHR Consortium - 2022*
Role: **Statistician**
PI: Paul Drawz
Total Award: $525,450

TEACHING

University of Minnesota

PubH 7461: Exploring and Visualizing Data in R — Fall 2022, Fall 2023, Fall 2024

PubH 7264: Data Visualization in R — Summer 2025
UMN Public Health Institute

ADVISING/MENTORING

Ph.D. Advising, University of Minnesota:

Jiayi Hu (w/Thomas Murray) — TBD

Milena Silva (w/Jared Huling and Joseph Koopmeiners) — TBD

Wenhao Cao (w/Haitao Chu and Saonli Basu) — November 2023
Research Synthesis Methodology for Normative Data and Genetic Data

Ph.D. Committees (non-Chair Role), University of Minnesota:

Zheng Wang, Biostatistics Ph.D. — November 2023
Innovative Multivariate Meta-Analysis Methods for Diagnostic Tests and Multiple Treatments

M.S. Advising, University of Minnesota:

Shurui Pan (M.S. in Statistics) TBD

Kailash Rohit Velusamy (w/Paul Drawz) August 2024
Meta-analysis study examining the association between telehealth expansion and quality of care in Minnesota

Jiayi Hu April 2024
Winner of ENAR 2024 Distinguished Student Paper Award
Type I Error Control and Interim Monitoring for Co-Primary Hypotheses Involving a Subgroup

Yansong Wen July 2023
Comparing Estimation Methods for Generalized Linear Mixed Models in Electronic Health Records Analysis: Privacy and Accuracy Considerations

Ziren Jiang April 2023
Estimating the reference interval from a meta-analysis using quantile regression

Xiao Ma June 2022
SAS Macros for Estimating Reference Intervals from Meta-Analysis using Aggregate and Individual Participant Data

M.S. Committees (non-Chair role), University of Minnesota:

Siming Sun, Biostatistics M.S. June 2025
Analysis of Technology and Questionnaire Derived Measures in an Early Phase Trial Evaluating Exercise Priming of Cognitive Behavioral Therapy for Major Depressive Disorder

Sri Krishna Vamsi Koneru, Data Science, M.S. (College of Science and Engineering) May 2025
Impact of Access to Personalized Healthcare Professional on Overall Child Health Status

Julia Kancans, Biostatistics M.S. July 2024
Assessing Poisson-distributed Differentially Private Synthetic Data Using County-Level Data from Minnesota on the 1980 Leading Causes of Death

HONORS/AWARDS

Jacob E. Bearman Student Achievement Award May 2021
National Research Service Award Fellowship (pre-doctoral) September 2019
Young Investigator Award, ASA Section on Statistics in Epidemiology July 2019
"*A Bayesian Multivariate Meta-Analysis of Prevalence Data*"
Outstanding Research Assistant Award, University of Minnesota May 2019
Dean's PhD Scholar, University of Minnesota August 2017
Biostatistics Research Fellowship, University of Minnesota August 2017
Phi Beta Kappa, Carleton College May 2017
Sigma Xi, Carleton College May 2017

PROFESSIONAL SERVICE

Editorial:

- Associate Editor - *Epidemiologic Reviews*
- Statistical Reviewer - *Journal of Heart and Lung Transplantation*

Ad-hoc Reviewer:

- *American Journal of Epidemiology*
- *Biometrical Journal*
- *Biometrics*
- *BMC Infectious Diseases*
- *BMC Medical Research Methodology*
- *BMC Medicine*
- *BMJ Open*
- *Epidemiology*
- *Health Services and Outcomes Research Methodology*
- *JAMA Oncology*
- *JASA Applications and Case Studies*
- *Research Synthesis Methods*
- *Statistics and Its Interface*
- *Statistics in Medicine*

Service to Professional Societies:

- Reviewer for Young Investigator Award, ASA Section on Statistics in Epidemiology 2022-Present

University Service:

University of Minnesota

Reviewer for Diversity of Views and Experience (DOVE) Fellowship 2022-Present

Departmental Service:

University of Minnesota, Division of Biostatistics and Health Data Science

Recruiting Committee

Chair 2024-Present

Member 2021-Present

Student Experience Committee

Member 2021-Present

PROFESSIONAL MEMBERSHIPS

American Statistical Association 2015 - Present

Eastern North American Region of the International Biometric Society 2019 - Present

Society for Research Synthesis Methodology 2022 - Present