Patrick M. Schnell

CONTACT INFORMATION
Division of Biostatistics
226 Cunz Hall
1841 Neil Ave
Columbus, OH 43210
Phone: (614) 292-5274
Email: schnell.31@osu.edu

RESEARCH INTERESTS
Bayesian inference, simultaneous inference, hierarchical and mixed models; clinical trials, subgroup analysis, personalized medicine; cancer, cancer survivorship.

EDUCATION
Ph.D. Biostatistics 2017
University of Minnesota, Minneapolis, MN

B.S. Mathematics *Magna Cum Laude*, 2013
The Ohio State University, Columbus, OH
Statistics Minor

PROFESSIONAL EXPERIENCE
The Ohio State University College of Public Health, Division of Biostatistics
Assistant Professor, 2017–present

The Ohio State University Wexner Medical Center, Department of Internal Medicine, Division of General Internal Medicine
Courtesy Assistant Professor, 2020–present

University of Minnesota School of Public Health, Division of Biostatistics
Doctoral Dissertation Fellow, 2016–2017
Research Assistant, 2013–2016

The Ohio State University Disease Ecology and Modeling Laboratory
Research Assistant, 2012–2013

HONORS AND AWARDS
2017 **Jacob E. Bearman Outstanding Achievement Award**, University of Minnesota Division of Biostatistics

2016-2017 **Doctoral Dissertation Fellowship**, University of Minnesota

2016 **Outstanding Teaching Assistant Award**, University of Minnesota Division of Biostatistics

2016 **Best Collaborative Project**, University of Minnesota School of Public Health Research Day

2016 **Student Paper Award**, Health Policy Statistics Section, Joint Statistical Meetings

2015 **James R. Boen Student Achievement Award**, University of Minnesota Division of Biostatistics

2015 **3rd Place Student Paper Award**, Biopharmaceutical Section, Joint Statistical Meetings

2015 **Most Innovative Project**, University of Minnesota School of Public Health Research Day

2015 **Honorable Mention**, PhD Abstracts and Presentations, University of Minnesota School of Public Health Research Day

2013 **Dean's PhD Scholarship**, University of Minnesota

2013–2014 **William R. Hearst Fellowship**, University of Minnesota School of Public Health

2013–2014 **Biostatistics Research Fellowship**, University of Minnesota Division of Biostatistics

PEER-REVIEWED PUBLICATIONS: STATISICAL METHODOLOGY

Underlined authors are supervised students (advisees or research associates).

2023 **Schnell, P.M.**, Wascher, M., Rempala, G.A. "Overcoming repeated testing schedule bias in estimates of disease prevalence." *Journal of the American Statistical Association*, online first, 2023. `https://doi.org/10.1080/01621459.2023.2238943`

2023 **Schnell, P.M.**
"Controlling the false discovery rate when identifying the subgroup benefiting from treatment."
Clinical Trials 20(4): 394–404.

2022 **Schnell, P.M.**, Baumgartner, R., Mt-Isa, S., Svetnik, V. "A principal stratification approach to estimating the effect of continuing treatment after observing early outcomes." *Journal of the Royal Statistical Society: Series C (Applied Statistics)* 71(5): 1065-–1084, 2022.

2021 Adin, A., Goicoa, T., Hodges, J.S., **Schnell, P.M.**, Ugarte, M.D. "Alleviating confounding in spatio-temporal areal models with an application on crimes against women in India" *Statistical Modeling*, 2021.

2021 Zhang, Y., **Schnell, P.M.**, Song, C., Huang, B., Lu, B. "Subgroup causal effect identification and estimation via matching tree." *Computational Statistics and Data Analysis*, 159: 107188, 2021.

2021 **Schnell, P.M.** "Monte Carlo approaches to frequentist multiplicity-adjusted benefiting subgroup identification." *Statistical Methods in Medical Research*, 30(4): 1026–1041, 2021.

2020 **Schnell, P.M.**, Papadogeorgou, G. "Mitigating unobserved spatial confounding when estimating the effect of supermarket access on cardiovascular disease deaths." *The Annals of Applied Statistics*, 14(4): 2069–2095, 2020.

2020 **Schnell, P.M.**, Fiecas, M., Carlin, B.P. "credsubs: multiplicity-adjusted subset identification." *Journal of Statistical Software*, 94(7), 2020.

2020 Ngo, D., Baumgartner, R., Mt-Isa, S., Feng, D., Chen, J., **Schnell, P.M.** "Bayesian credible subgroup identification for treatment effectiveness in time-to-event data." *PLoS One*, 15(2): e0229336, 2020.

2020 Ball, G., Reblin, T., Buchanan, J.M., Hendrickson, B.A., Lewis, E., **Schnell, P.M.**, Rockhold, F.W. "A framework for safety evaluation throughout the product development life-cycle." *Therapeutic Innovation and Regulatory Science*, 54: 821–830, 2020.

2019 **Schnell, P.M.**, Bose, M. "Spectral parameterization for linear mixed models applied to confounding of fixed effects by random effects." *Journal of Statistical Planning and Inference* 200: 47–62, 2019.

2018 **Schnell, P.M.**, Müller, P., Tang, Q., Carlin, B.P. "Multiplicity-adjusted semiparametric benefiting subgroup identification in clinical trials." *Clinical Trials* 15(1):75–86, 2018.

2017 **Schnell, P.M.**, Tang, Q., Müller, P., Carlin, B.P. "Subgroup inference for multiple treatments and multiple endpoints in an Alzheimer's disease treatment trial." *The Annals of Applied Statistics* 11(2):949–966, 2017.

2016 **Schnell, P.M.**, Ball, G. "A Bayesian exposure-time method for clinical trial safety monitoring with blinded data." *Therapeutic Innovation and Regulatory Science* 50(6):833–838, 2016.

2016 **Schnell, P.M.**, Tang, Q., Offen, W.W., Carlin, B.P. "A Bayesian credible subgroups approach to identifying patient subgroups with positive treatment effects." *Biometrics* 72(4):1026–1036, 2016.

2015 **Schnell, P.M.**, Bandyopadhyay, D., Reich, B.J., Nunn, M. "A marginal cure rate proportional hazards model for spatial survival data." *Journal of the Royal Statistical Society: Series C (Applied Statistics)* 64(4):673–691, 2015.

PEER-REVIEWED PUBLICATIONS: APPLIED

Underlined authors are supervised students (advisees or research associates).

2023 Johnson, K.C.C., Grimm, M., Sukumar, J., **Schnell, P.M.**, Park, K.U., Stover, D.G., Jhawar, S.R., Gatti-Mays, M., Wesolowski, R., Williams, N., Sardesai, S., Pariser, A., Sudheendra, P., Tozbikian, G., Ramaswamy, B., Doto, D., Cherian, M. "Survival outcomes seen with neoadjuvant chemotherapy in the management of locally advanced inflammatory breast cancer (IBC) versus matched controls." *The Breast*, 2023.
https://doi.org/10.1080/01621459.2023.2238943

2023 Sweet, K., Reiter, P.L., **Schnell, P.M.**, Senter, L., Shane-Carson, K.P., Aeilts, A., Cooper, J., Spears, C., Brown, J., Toland, A.A., Agnese, D.M., Katz, M.L. "Genetic counseling and testing for femalse at elevated risk for breast cancer: Protocol for the randomized controlled trial of the Know Your Risk intervention." *Contemporary Clinical Trials*, 133: 107323.

2023 Cronin, R.M., Quaye, N., Liu, X., Landes, K., Crosby, L., Kassim, A.A., Volanakis, E.J., **Schnell, P.M.**, DeBaun, M.R. "A feasibility randomized controlled trial of a mHealth app vs booklets for patient-facing guidelines." *Blood Advances*, accepted.

2023 Lantis, K.D., **Schnell, P.M.**, Bland, C.R., Wilder, J., Hock, K., Vargo, C., Glover, N.A., Hackney, M.E., Lustberg, M.B., Worthen-Chaudhari, L. "Biomechanical effect of neurologic dance training (NDT) for breast cancer survivors with chemotherapy-induced neuropathy: Study protocol for a randomized controlled trial and preliminary baseline data." *Trials*, 24:564, 2023.

2023 D'Amico, R., **Schnell, P.M.**, Foraker, R., Olayiwola, J.N., Jonas, D.E., Brill, S. "The evolution of primary care telehealth disparities during COVID-19: Retrospective cohort study." *Journal of Medical Internet Research*, 25:e43965, 2023.

2023 Rose, L., **Schnell, P.M.**, Ratcliff, L., Lustberg, M., Dulmage, B. "Retrospective cohort study of scalp cooling in breast cancer patients." *Supportive Care in Cancer*, 31:118, 2023

2022 Katz, M.L., Senter, L., Reiter, P.L., Emerson, B., Ennis, A.C., Shane-Carson, K.P., Aeilts, A., Cassingham, H.R., **Schnell, P.M.**, Agnese, D.M., Toland, A.E., Sweet, K. "Development of a web-based, theory-guided narrative intervention for women at elevated risk for breast cancer." *Patient Education and Counseling*, 106:163–169, 2023

2022 Morgan, E., **Schnell, P.M.**, Singh, P., Fareed, N. "Outpatient portal use among pregnant individuals: cross-sectional, temporal, and cluster analysis of use." *Digital Health*, 8:1–14, 2022.

2022 McCreary, M.R., **Schnell, P.M.**, Rhoda, D.A. "Randomized double-blind placebo-controlled proof-of-concept trial of resveratrol for outpatient treatment of mild coronavirus disease (COVID-19)." *Scientific Reports*, 12: 10978, 2022.

2022 Datta, J., Willingham, N., Manouchehri, J., **Schnell, P.M.**, Sheth, M., David, J., Kassem, M., Wilson, T., Radomska, H, Coss, C., Bennet, C., Ganju, R., Sardesai, S., Lustberg, M., Ramaswamy, B., Stover, D, Cherian, M. "Activity of estrogen receptor β agonists in therapy-resistant estrogen receptor-positive breast cancer." *Frontiers in Oncology*, 12:857590, 2022.

2021 **Schnell, P.M.**, Lustberg, M.B., Henry, N.L. "Adverse events and perception of benefit from duloxetine for treating aromatase inhibitor–asociated arthralgias." *Journal of the National Cancer Institute: Cancer Spectrum*, 5(2): pkab108, 2021.

2021 Prater, L.C., O'Rourke, B., **Schnell, P.M.**, Xu, W., Li, Y., Gustin, J., Lockwood, B., Lustberg, M., White, S., Happ, M.B., Retchin, S.M., Wickizer, T.M., Bose-Brill, S. "Examining the association of billed advance care planning with end-of-life hospital admissions among advanced cancer patients in hospice." *American Journal of Hospice & Palliative Medicine*, 2021.

2021 Lockwood, B. J., Ntukidem, O.L., Ehrman, S.E., **Schnell, P.M.**, Klemanski, D.L., Bhatnagar, B., Lustberg, M. "Palliative care referral patterns for adolescent and young adult patients at a comprehensive cancer center." *Journal of Adolescent and Young Adult Oncology*, 10(1), 2021.

2020 Coonan, A., **Schnell, P.M.**, Smith, J, Forbes, J.. "Using the Bayesian credible subgroups method to identify populations benefiting from treatment: An application to the Look AHEAD trial." *PLoS One*, 15(4): e0231241, 2020.

2019 **Schnell, P.M.**, Shao, Y., Pomeroy, L.W., Tien, J.H., Moritz, M., Garabed, R. "Modeling the role of carrier and mobile herds on foot-and-mouth disease virus endemicity in the Far North Region of Cameroon." *Epidemics*, 29: 100355, 2019.

2019 Angelotti, A.A., Cole, R.M., **Schnell, P.M.**, Raatz, S.K., Belury, M.A. "Evaluation of a rapid assessment questionnaire using a biomarker for dietary intake of n-3 fatty acids." *Lipids*, 54(5): 312–328, 2019.

2019 Banh, T., Snoke, D., Cole, R.M., Angelotti, A., **Schnell, P.M.**, Belury, M.A. "Higher tumor mass and lower adipose mass are associated with colon-26 adenocarcinoma-induced cachexia in male, female, and ovariectomized mice." *Oncology Reports* 41(5):2909–2918, 2019.

2015 Travis, S.P.L. et al. (17 authors, including **Schnell, P.M.**) "The impact of clinical information on the assessment of endoscopic activity: characteristics of the Ulcerative Colitis Endoscopic Index of Severity [UCEIS]." *Journal of Crohn's and Colitis* 9(8):607–616, 2015.

2013 Travis, S.P.L. et al. (17 authors, including **Schnell, P.M.**) "Reliability and initial validation of the ulcerative colitis endoscopic index of severity." *Gastroenterology* 145:987-995, 2013.

SOFTWARE

2017 **Schnell, P.M.**, Carlin, B.P. "`credsubs`: Credible subsets." R package version 1.0.
`https://CRAN.R-project.org/package=credsubs`

OTHER PUBLICATIONS

2019 **Schnell, P.M.** "Comments on: Modular regression—a Lego system for building structured additive distributional regression models with tensor product interactions" *TEST* 28(1): 46–51, 2019.

2019 **Schnell, P.M.** and Carlin, B.P. "Review of *Bayesian Designs for Phase I-II Clinical Trials*." *Journal of the American Statistical Association* 114(525): 477–483, 2019.

2016 Ball, G., **Schnell, P.M.** "Blinded safety signal monitoring for the FDA IND reporting final rule." Chapter in: *Statistical Applications from Clinical Trials and Personalized Medicine to Finance and Business Analytics*, 201–211, 2016.

SUBMITTED AND IN PREPARATION

Underlined authors are supervised students (advisees or research associates).

1. Wascher, M., **Schnell, P.M.**, Khudabukhsh, W.R., Quam, M., Tien, J.H., Rempala, G.A. "Estimating disease transmission in a closed population under repeated testing." Under revision for *Journal of the Royal Statistical Society, Series C: Applied Statistics*.

2. Hair, G.M., Jemielita, T., Mt-Isa, S., **Schnell, P.M.**, Baumgartner, R. "Investigating stability in subgroup identification for stratified medicine." Under revision for *Pharmaceutical Statistics*.

3. Manouchehri, J.M., Datta, J., Marcho, L., Stover, D., Ganju, R.K., Ramaswamy, B., Carson, W.E., Mittra, A., Zhang, X., **Schnell, P.M.**, Rubinstein, M.P., Cherian, M.A. "Sulfatase 2 inhibition sensitizes triple-negative breast cancer cells to chemotherapy through augmentation of extracellular ATP." Submitted.

4. Liu, X., **Schnell, P.M.** "Bayesian data augmentation for recurrnet events under intermittent assessment in overlapping intervals with application to electronic medical record data" Submitted.

5. **Schnell, P.M.**, Zhao, R., Schoenbeck, S., Fried, M., Childerhose, J.E. "How Ohio public library systems respond to opioid activity: A descriptive analysis of survey results." Submitted.

6. McEwan, S., Niles, K., Schoenbeck, S., **Schnell, P.M.**, Fried, M., Childerhose, J. "Sources of tension in the responses of Ohio public libraries to the opioid epidemic: Perspectives of library directors." Submitted.

7. **Schnell, P.M.**, Kassem, M., Miah, A., Ramaswamy, B., Williams, N., Cherian, M., Stover, D.G., Gatti-Mays, M.E., Pariser, A., Wesolowski, R., Sardesai, S., Sudheendra, P.K., Ormiston, K., Mezzanotte, J.N., Orchard, T.S., Lustberg, M. "Changes in glucose level during chemotherapy treatment in patients with stage I–IV breast cancer." Submitted.

8. Johnson, K.C.C., Goldstein, D., Tharakan, J., Quiroga, D., Kassem, M., Grimm, M., Miah, A., Vargo, C., Berger, M., Sudheendra, P., Pariser, A., Gatti-Mays, M.E., Williams, N., Stover, D., Sardesai, S., Wesolowski, R., Ramaswamy, B., Tozbikian, G., **Schnell, P.M.**, Cherian, M.A. "The immunomodulatory effects of dexamethasone on neoadjuvant chemotherapy for triple negative breast cancer." Submitted.

9. Nashed, A., Kamdar, H.A., Devgun, J., Klein, N., Gillespie, M., Hua, S., **Schnell, P.M.**, Kearns, L. "Bedside chats: a scalable tool to enhance the physician-patient relationship." Submitted.

10. Quartey, D., Schnell, P.M., Baumgartner, R., Mt-Isa, S., Feng, D., Chen, J., Ball, G., Ngo, D. "Bayesian credible subgroups for count data with excess zeroes." Submitted.

11. Brill, S., Riley, S., Prater, L., **Schnell, P.M.**, Schuster, A., Smith, S., Foreman, B., Xu, W., Gustin, J., Li, Y., Zhao, C., Barrett, T., Hyer, M. "Advance care planning (ACP) in Medicare benificiaries with advanced heart failure." Submitted.

12. Richardson, C., **Schnell, P.M.** "Post-variable selection inference adjustment in randomized trials: A Monte Carlo approach." In preparation.

13. **Schnell, P.M.**, Baumgartner, R., Svetnik, V. "Estimating the effect of continuing treatment on ordinal endpoints after observing early outcomes." In preparation.

14. Williams, N., **Schnell, P.M.**, Kassem, M., Morgan, E., Chaudhari, A., Worthen-Chaudhari, L., Cherian, M., VanDeusen, J., Stover, D., Sardesai, S., Wesolowski, R., Ramaswamy, B., Lustberg, M. "Incidence and clinical predictors of falls in patients with breast cancer." In preparation.

INVITED PRESENTATIONS

2023 "Opportunities for new estimands in clinical trials through principal stratification." 46th Annual Midwest Biopharmaceutical Statistics Workshop, Indianapolis, IN, May 2023.

2022 "Quantifying uncertainty around the population benefiting from treatment." St. Jude Children's Research Hospital (virtual), June 2022.

2022 "Multiplicity considerations for analyses of non-exchangeable subgroups." 14th Annual University of Pennsylvania Conference on Statistical Issues in Clinical Trials / Subgroup Analysis in Clinical Trials: Opportunities and Challenges, Online, April 2022.

2020 "COVID-19 hotspotting and lessons in 'battlefield biostatistics.'" Division of Biostatistics, The Ohio State University, Columbus, OH, November 2020.

2020 "Mitigating unobserved spatial confounding with spatial random effects." International Biometric Conference, Seoul, Korea, August 2020 [presented remotely due to COVID-19 pandemic].

2020 "Mitigating unobserved spatial confounding of the effect of supermarket access on cardiovascular disease deaths." Department of Statistics, The Ohio State University, Columbus, OH, February 2020.

2019 "Bayesian identification of populations with positive benefit-risk balance." Merck & Co., Rahway, NJ, October 2019.

2019 "Mitigating bias from unobserved spatial confounders using mixed effects models." Public University of Navarre, Pamplona, NC, Spain, June 2019.

2019 "Mitigating bias from unobserved spatial confounders using mixed effects models." Mathematical Biosciences Institute Bayesian Causal Inference Workshop, Columbus, OH, June 2019.

2018 "Tutorial: blinded safety monitoring." Merck & Co., Rahway, NJ, October 2018.

2018 "Tutorial: credible subgroups." Merck & Co., Rahway, NJ, October 2018.

2018 "Practical Bayesian modeling and subgroup inference in Alzheimer's drug development." Joint Statistical Meetings, Vancouver, BC, Canada, July 2018.

2018 "Multiplicity-controlled benefiting subgroup identification via credible subgroups." Statistical Society of Canada Annual Meeting, Montréal, QC, Canada, June 2018.

2018 "Identifying benefiting patient subgroups for multiple treatments and multiple endpoints." International Conference on Health Policy Statistics, Charleston, SC, January 2018.

2017 "A Bayesian approach to safety monitoring with blinded exposure-time data." PSI/DIA Virtual Journal Club, September 2017.

2016 "Benefiting subgroup identification and multiple endpoint inference." AbbVie, North Chicago, IL, July 2016.

2015 "Bayesian bounds for identifying the benefiting subgroup." AbbVie, North Chicago, IL, March 2015.

CONTRIBUTED PRESENTATIONS AND POSTERS

2022 "Controlling the False Discovery Rate in Benefiting Subgroup Identification." Presentation at Joint Statistical Meetings, Washington, DC, United States, August 2022.

2021 "A principal stratification approach to estimating the effect of continuing treatment after observing early outcomes." Presentation at Joint Statistical Meetings, Online, August 2021.

2019 "Spectral parameterization, diagnostics, and remedies for confounding of fixed effects by random effects." Presentation at Joint Statistical Meetings, Denver, CO, United States, July 2019.

2018 "Multiplicity-controlled benefiting subgroup identification via credible subgroups." Presentation at Joint Statistical Meetings, Vancouver, BC, Canada, August 2018.

2017 "Semiparametric Benefiting Subgroup Identification via Credible Subgroups" Presentation at Joint Statistical Meetings, Baltimore, MD, July 2017.

2017 "Subgroup inference for multiple treatments and multiple endpoints" Presentation at ENAR 2017 Spring Meeting, Washington, DC, March 2017.

2016 "Credible subgroup inference for bounding the benefiting subpopulation for many treatments and multiple endpoints." Poster presented at Twin Cities ASA Fall Research Meeting, Medtronic, Minneapolis, MN, October 2016.

2016 "Bayesian bounding of the population subgroup which benefits from treatment." Presentation at Joint Statistical Meetings, Chicago, IL, August 2016.

2016 "Credible subgroup inference for bounding the benefiting subpopulation for many treatments and multiple endpoints." Poster presented at School of Public Health Research Day, University of Minnesota, Minneapolis, MN, April 2016.

2016 "Credible subgroup inference for bounding the benefiting subpopulation for many treatments and multiple endpoints." Presentation at ENAR 2016 Spring Meeting, Austin, TX, March 2016.

2015 "A Bayesian credible subgroups approach to identifying patient subgroups with positive treatment effects." Poster presented at Twin Cities ASA Fall Research Meeting, Mayo Clinic, Rochester, MN, October 2015.

2015 "A Bayesian credible subgroups approach to identifying patient subgroups with positive treatment effects." Poster presented at International Conference on Health Policy Statistics, Providence, RI, October 2015.

2015 "A Bayesian credible subgroups approach to identifying patient subgroups with positive treatment effects." Presentation at Joint Statistical Meetings, Seattle, WA, August 2015.

2015 "A Bayesian hierarchical modeling approach to identifying subgroups with positive treatment effects." Poster presented at G70, Durham, NC, April 2015.

2015 "Bayesian bounds for identifying the benefiting subgroup." Poster presented at School of Public Health Research Day, University of Minnesota, Minneapolis, MN, April 2015.

2014 "A marginal cure-rate proportional hazards model for spatial survival data." Poster presented at School of Public Health Research Day, University of Minnesota, Minneapolis, MN, April 2014.

2013 "Impact of migration and asymptomatic carriers on foot-and-mouth disease spread in Cameroon." Poster presented at Denman Undergraduate Research Forum, The Ohio State University, Columbus, OH, March 2013.

2012 "Stochastic modeling of endemic foot-and-mouth disease in northern Cameroon." Presentation and Poster at Mathematical Biosciences Institute Undergraduate Research Capstone Conference, The Ohio State University, Columbus, OH, August 2012.

STUDENT CONTRIBUTED PRESENTATIONS AND POSTERS

2023 Xin Liu, **Patrick M. Schnell**. "Bayesian data augmentation for recurrent events with intermittent assessment in overlapping intervals." Poster at Midwest Biopharmaceutical Statistics Conference, Indianapolis, IN, United States, May 2023.

2022 Xin Liu, **Patrick M. Schnell**. "Bayesian data augmentation for recurrent events with intermittent assessment in overlapping intervals." Presentation at Joint Statistical Meetings, Washington, DC, United States, August 2022.

GRANT SUPPORT: PRINCIPAL INVESTIGATOR

1. NIH R03: 1R03CA270478   03/01/2022–02/29/2024
   Bayesian data augmentation for recurrent events in electronic medical records of patients with cancer.
   Major goals: Develop statistical tools to analyze recurrent events (e.g., falls) as recorded in electronic medical records of patients with cancer: often with complex censoring and overlapping assessment intervals.

GRANT SUPPORT: CO-INVESTIGATOR

1. NIH R01: R01CA248739 (PI: Sweet, Katz)
   01/01/2021–12/31/2025
   A randomized controlled trial: Genetic counseling patient preference intervention via electronic health record portal vs conventional genetic counseling for women at elevated risk for breast cancer
   Major goals: Evaluate engagement and outcomes of women at elevated risk for breast cancer when undergoing genetic counseling through electronic health record portal (with patient options for mode of contact with counselors) versus conventional genetic counseling.

2. NIH K23: K23HL141447 (PI: Cronin)
   06/01/2018–05/01/2024
   Using patient-centered guidelines in a technology platform to improve health care in adults with sickle cell disease
   Major goals: Evaluate the effectiveness of a mobile health platform to improve health care in adults with sickle cell disease.

3. NIH R21: 1R21AG068831 (PI: Worthen-Chaudhari)
   08/01/2021–04/30/2023
   Novel interventions for chemotherapy-induced neuropathy
   Major goals: Evaluate the feasibility and efficacy of an adapted Tango intervention for chemotherapy-induced neuropathy versus a home exercise regimen.

4. Internal OSU Department of Internal Medicine Plot Grant (PI: Childerhose)
   04/01/2021–03/31/2022
   Is Narcan the new CPR? The capacity of Ohio public libraries as Opioid Responders
   Major goals: Survey and interview Ohio public library directors to understand libraries' efforts to address the opioid crisis in their communities.

5. Internal OSU Comprehensive Cancer Center Seed Award (PI: Orchard)
   01/01/2019–12/31/2019
   Long chain omega-3 biomarkers, insulin resistance, and treatment-associated affective and cognitive changes in women receiving chemotherapy for breast cancer
   Major goals: Clinical trial investigating dietary protective effects on chemotherapy-induced cognitive changes.

6. Internal OSU Drug Development Institute (PI: Cherian)
   01/01/2019–12/31/2019
   Harnessing estrogen receptor beta to improve outcomes in metastatic breast cancer
   Major goals: Retrospective and in-vitro models of relationship between pathologic biomarkers and clinical outcomes.

7. NIH UL1: UL54TR002461 (PI: Jackson)
   07/01/2018–06/30/2023
   OSU Clinical and Translational Science Award: Biostatistics, Epidemiology, and Research Design Program
   Major goals: The Center provides financial, organizational, and educational support to biomedical researchers, as well as opportunities for community members to participate in credible and valuable

research.

8. NIH R21: R21CA209566 (PI: Belury)
01/01/2018–12/31/2019
Dietary fats, mitochondrial function and muscle health in cancer patients Major goals: Clinical trial evaluating protective effects of a dietary intervention on chemotherapy-induced muscle degradation.

CONSULTING

2018–present Merck & Co. scientific consulting contract for methodological development for subgroup analysis and causal inference in clinical trials.

2019 Merck & Co. Tutorial and consultation on subgroup analyses in benefit-risk evaluation. Rahway, NJ, October 2019.

2018 Merck & Co. Tutorials and consultation on benefiting subgroup identification and safety monitoring with blinded data. Rahway, NJ, October 2018.

TEACHING

The Ohio State University

Special Topics: Causal Inference in Clinical Trials	Fall term, 2019
Biostatistics for Public Health Research	Spring terms, 2018–2022
Design and Analysis of Clinical Trials	Fall terms, 2018–2022

University of Minnesota (Teaching Asssitant)

Summer Institute in Biostatistics (Summer 2016)

Statistical Literacy (Fall 2015)

ADVISING: PRIMARY ADVISOR

Doctoral

– Xin Liu, biostatistics candidate (current)

Masters

– Carson Richardson, biostatistics student (current)

ADVISING: COMMITTEE MEMBER

Degrees indicate graduated students.
Doctoral

– Timothy Winschel, nutrition (Adv: Tonya Orchard)

– Sushma Nepal, nutrition (Adv: Fred Tabung)

– Alyssa Farmer, biostatistics candidate (Adv: Eloise Kaizar)

– Qing Xie, biostatistics candidate (Adv: Shili Lin)

– Meredith McCormack-Mager, biostatistics student (Adv: Abigail Shoben)

– Zihan Zhang, nutrition candidate (Adv: Tonya Orchard)

– Woobeen Lim, biostatistics PhD, 2021 (Adv: Michael Pennell)

Last updated: November 2, 2023

- Yuyang Zhang, biostatistics PhD, 2020 (Adv: Bo Lu)

- Jonathan Race, biostatistics PhD, 2019 (Adv: Michael Pennell)

Masters

- Brendan Roszman, epidemiology MPH, 2023 (Adv: Shawnita Sealy-Jefferson)

- Katherine Buck, biostatistics MPH, 2023 (Adv: Abigail Shoben)

- Nina Hoffmeyer, epidemiology MPH, 2022 (Adv: Sarah Anderson)

- Melica Nikahd, biostatistics MS, 2022 (Adv: Abigail Shoben)

- Evan Morgan, biomedical informatics MS, 2021 (Adv: Naleef Fareed)

- Sarah Schlotter, bioinformatics MPH, 2020 (Adv: Erinn Hade)

- Adrienne Damicis, biostatistics MS, 2019 (Adv: James Odei)

SERVICE: ADMINISTRATIVE

OSU CPH Division of Biostatistics

- **Chair:** Biostatistics Seminar Committee	2021–present
- Biostatistics PhD program 2nd qualifying exam committee	2019–2021
- Biostatistics MS and MPH Admissions Committee	2017–2019

OSU College of Public Health

- Bachelor of Science in Public Health Committee (including admissions)	2019–present

The Ohio State University

- Graduate faculty representative for dissertation defense in another unit

  * Vyom Thakker, Chemical Engineering, 2022

  * Heike Hoffer, Music, 2022

  * Austin Antoniou, Mathematics, 2020

  * Mary Kate Tompkins, Psychology, 2018

SERVICE: PROFESSION

Biomarker Committee

- Society for Immunotherapy in Cancer	2021–present

Provide statistical perspectives and guidance for committee on biomarker assay development and standardization in cancer immunotherapy.

Associate Editor

- *Journal of Biopharmaceutical Statistics*	2021–present

Standing Reviewer

- *Journal of the National Cancer Institute & JNCI Cancer Spectrum*	2020–present

Statistical Reviewer

Ad Hoc Reviewer

- *Annals of Applied Statistics*

- *Annals of Oncology*

- *Bioinformatics Advances*

- *BioMed Central Medical Research Methodology*

- *Biometrical Journal*

- *Biometrics (7)*

- *Biostatistics (2)*

- *BMJ Open (4)*

- *International Journal of Methods in Psychiatric Research*

- *Journal of Applied Statistics*

- *Journal of Biopharmaceutical Statistics*

- *Journal of Machine Learning Research*

- *Journal of the Royal Statistical Society, Series A*

- *Journal of the Royal Statistical Society, Series C (3)*

- *Lifetime Data Analysis*

- *Pharmaceutical Medicine*

- *Pharmaceutical Statistics*

- *Statistical Methods in Medical Research*

- *Statistics in Medicine (3)*

- *The American Statistician*

- *Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery*

SERVICE: STUDIES AND PROGRAMS

Data Safety and Monitoring Board: BLCIO Clinical Trial   2021–present
Biostatistician member ensuring safety of study subjects in a randomized trial evaluating advanced genomic and immunotherapy testing with decision support.

Supplement for COVID-19 clinical trial   2020–2022
Lead statistician for a Phase II randomized trial of an over-the-counter dietary supplement for the outpatient treatment of mild-to-moderate COVID-19 at Mt. Carmel Hospital in Columbus, OH. Study design and data analysis.

The Ohio State University COVID-19 response   2020–2021
Provided mathematical modeling of disease spread, transmission, and risk. Assisted with statistical data analysis for evaluating prevalence and potential risk factors associated with disease incidence.

Ohio Department of Health COVID-19 response   2020
Provided mathematical modeling of disease spread, transmission, and risk. Developed statistical methods, dashboard software, documentation, and training used by ODH for disease surveillance.