CURRICULUM VITAE
October 6, 2025

Yunro Chung

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Education

Ph.D., Biostatistics, University of North Carolina at Chapel Hill, Chapel Hill, NC, 2016
M.S., Statistics, Chung-Ang University, Seoul, South Korea, 2008
B.S., Statistics, Chung-Ang University, Seoul, South Korea, 2006

Professional Experience

Assistant Professor, Biostatistics, Biomedical Informatics and Data Science Program, College of Health Solutions, Arizona State University (ASU), Phoenix, AZ, 2018-present
Faculty Member, Virginia G. Piper Center for Personalized Diagnostics, Biodesign Institute, ASU, Tempe, AZ, 2018-present
Postdoctoral Fellow, Fred Hutchison Cancer Research Center, Seattle, WA, 2016-2018
Statistical Fellow, SAS Institute, Cary, NC, 2015 Summer
Intern, Novartis Oncology, Florham Park, NJ, 2012 Summer
Graduate Research Assistant, University of North Carolina at Chapel Hill, Chapel Hill, NC, 2009-2016
Biostatistician, Korea Food and Drug Administration, Seoul, South Korea, 2008-2009

Honors and Awards

Faculty Research Award, College of Health Solutions, ASU, Phoenix, AZ, 2023
Marci K. Campbell Dissertation Award, Lineberger Comprehensive Cancer Center, University of North Carolina at Chapel Hill, Chapel Hill, NC, 2015
Young Research Travel Award, International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, NC, 2014
Oak Ridge Institute for Science and Education (ORISE) Fellowship for PhD Dissertation Research, US Food and Drug Administration, 2013-2016

Research Interests

Methodology: Biostatistics, isotonic regression, machine learning, receiver operating characteristics (ROC) curve analysis, survival data analysis
Applications: clinical trials, epidemiological studies, diagnostic research, cancer, nephrology, dentistry

Publications

* denotes students under Chung's supervision.
† denotes corresponding author, used only when the last author is not the corresponding author.

Peer-reviewed Publications:

2025

1. **Chung, Y.**, Murugan, V., Beyene, K, and Chen, D., Pseudo partial likelihood method for proportional hazards models when time origin is missing for control group with applications to SARS-CoV-2 seroprevalence study, *Journal of Data Science*, In press.
2. †**Chung, Y.**, Ivanova, A. and Fine, J.P. Isotonic estimation of additive covariate effects under proportional hazards models*, Statistics in Biosciences*, In press.
3. **Chung, Y.**, Cai, T., Newcomb, L., Lin, D. and Zheng, Y., 2025, Improving efficiency and robustness of the prognostic accuracy of biomarkers with partial incomplete failure-time data and auxiliary outcome: application to prostate cancer active surveillance study*, Statistics in Medicine*, *44*(8-9), e70072.
4. *Fowers, R., Coza, A., **Chung, Y.**, Ghasemzadeh, H., Cloonan, S., Huberty, J., Berardi, V. and Stecher, C., 2025. Identifying common patterns in the time of day of mindfulness meditation associated with long-term maintenance. *Behavioral Sciences*, *15*(3), p.381.
5. Hou, C.W., Williams, S., Trivino-Soto, G., Boyle, V., Rainford, D., Vicino, S., Magee, M., **Chung, Y.**, LaBaer, J. and Murugan, V., 2025. The omicron variant of SARS-CoV-2 drove broadly increased seroprevalence in a public university setting. *PLOS Global Public Health*, *5*(1), p.e0003893.
6. Bavikadi, D., Agarwal, A., Ganta, S., **Chung, Y.**, Song, L., Qiu, J. and Shakarian, P., 2025. Machine learning driven biomarker selection for medical diagnosis. *PLOS One*, *20*(6), p.e0322620.
7. Choi, H., Moon, T.J., Kwon, J.Y., Lee, S.Y., Jung, K.Y., Kim, H.J., **Chung, Y**. and Kim, J.T., 2025. Higher urine specific gravity associated with higher fasting blood glucose levels and insulin resistance: a 10-year Korean cohort study. *Endocrinology Research and Practice*, *29*(2).
8. Ewaisha, R., Ruffin, M.T., Williams, S., **Chung, Y.**, DeGraffinreid, C.R., Paskett, E.D., Reiter, P., Qiu, J., Brenner, D.E. and Anderson, K., 2025. Serum profiling of the antibody response to HPV in women with or without abnormal cervical cytology undergoing cervical cancer screening. *Frontiers in Immunology*, *16*, p.1612761.
9. Hou, C.W., Williams, S., Boyle, V., Roeder, A., Bobbett, B., Garcia, I., Caruth, G., Magee, M., **Chung, Y.**, Lake, D.F. and LaBaer, J., 2025. Tracking immunity: an increased number of COVID-19 boosters increases the longevity of anti-RBD and anti-RBD-neutralizing antibodies. *Vaccines*, *13*(1), 61.
10. Hou, C.W., Kumar, P., Williams, S., Zhu, M., Obahiagbon, U., Eger, J., D'Souza, G., **Chung, Y.**, Dar, L., Bhatla, N. and Blain Christen, J., 2025. Development of a multiplexed lateral flow assay for the serologic detection of HPV-associated head and neck cancer. *Cancer Biomarkers*, *42*(2).

2024

11. *Zhang, Y. and **Chung, Y.**, 2024. Nonparametric estimation of linear personalized diagnostics rules via efficient grid algorithm*, Statistics in Medicine, 43*(7), pp.1354-1371.
12. †**Chung, Y.**, Ivanova, A. and Fine, J.P., 2024. Shape restricted additive hazards models: monotone, unimodal and u-shape hazard functions*, Statistics in Medicine, 43*(9), pp.1671-1687.
13. **Chung, Y.**, 2024. Nonparametric estimation of proportional hazards with monotone baseline hazard and covariate effect, *Statistics in Biosciences*. *16*(3), pp. 787-800.
14. Chen, D., **Chung, Y.**, and Beyene, K., 2024. Estimate time-to-infection (TTI) vaccination effect when TTI for unvaccinated group is unknown, *Statistics in Biosciences*. *16*(3), pp. 723-741.

15. Song, L., Rauf, F., Hou, C.W., Qiu, J., Murugan, V., **Chung, Y.**, Lai, H., Adam, D., Magee, D.M., Trivino Soto, G. and Peterson, M., 2024. Quantitative assessment of multiple pathogen exposure and immune dynamics at scale. *Microbiology Spectrum*, *12*(1), pp.e02399-23.
16. Ridha, I., Xu, C., Zhang, Y., **Chung, Y.**, Park, J.G., LaBaer, J. and Murugan, V., 2024. Multiplexed methylated DNA immunoprecipitation sequencing (Mx-MeDIP-Seq) to study DNA methylation using low amounts of DNA. *DNA*, *4*(4), pp.397-416.
17. Koehler, M.A., Song, L., Grill, F.J., Shubitz, L.F., Powell, D.A., Galgiani, J.N., Orbach, M.J., Robb, E.J., **Chung, Y.**, Williams, S.A. and Murugan, V., 2024. Discovery of a unique set of dog-seroreactive Coccidioides proteins using nucleic acid programmable protein array. *Journal of Fungi*, *10*(5), p.307.

2023

18. Ahmadinejad, N., †**Chung, Y.**, †Li, L., 2023. J-score: a robust measure of clustering accuracy, *PeerJ Computer Science*, 9, e1545. († denotes Co-corresponding authors)
19. Shome, M., Gao, W., Engelbrektson, A., Song, L., Williams, S., Murugan, V., Park, J.G., **Chung, Y.**, LaBaer, J. and Qiu, J., 2023. Comparative microbiomics analysis of antimicrobial antibody response between patients with lung cancer and control subjects with benign pulmonary nodules. *Cancer Epidemiology, Biomarkers & Prevention*, *32*(4), pp.496-504.
20. Song, L., Song, M., Rabkin, C.S., **Chung, Y.**, Williams, S., Torres, J., Corvalan, A.H., Gonzalez, R., Bellolio, E., Shome, M. and LaBaer, J., 2023. Identification of anti-helicobacter pylori antibody signatures in gastric intestinal metaplasia. *Journal of Gastroenterology*, *58*(2), pp.112-124.
21. Sullivan, M., Huberty, J., **Chung, Y.** and Stecher, C., 2023. Mindfulness meditation app abandonment during the COVID-19 pandemic: an observational study. *Mindfulness*, *14*(6), pp.1506-1521.
22. Qiu, J., Engelbrektson, A., Song, L., Park, J.G., Murugan, V., Williams, S., **Chung, Y.**, Pompa-Mera, E.N., Sandoval-Ramirez, J.L., Mata-Marin, J.A. and Gaytan-Martinez, J., 2023. Comparative analysis of antimicrobial antibodies between mild and severe COVID-19. *Microbiology Spectrum*, *11*(4), pp.e0469022.
23. Ruschel, V.C., Stolf, S.C., da Luz Baratieri, C., **Chung, Y.**, Boushell, L.W., Baratieri, L.N. and Walter, R., 2023. Five-year clinical evaluation of universal adhesives in noncarious cervical Lesions. *Operative Dentistry, 48*(4), pp.364-372.
24. Lal, D., Song, L., Brar, T., Cope, E.K., Keim, P., Williams, S., **Chung, Y.**, Murugan, V., LaBaer, J. and Magee, D.M., 2023, Antibody responses to the host microbiome in chronic rhinosinusitis. *International Forum of Allergy & Rhinology*, *13*(8), pp. 1503-1510.
25. Hou, C.W., Williams, S., Taylor, K., Boyle, V., Bobbett, B., Kouvetakis, J., Nguyen, K., McDonald, A., Harris, V., Nussle, B., Scharf, P., Jehn, M.L., Lant, T., Magee, M., **Chung, Y.**, LaBaer, J. and Murugan, V. 2023. Serological survey to estimate SARS-CoV-2 infection and antibody seroprevalence at a large public university: a cross-sectional study. *BMJ open*, *13*(8), 072627.
26. Jehanathan, N., Kapuruge, E.P., Rogers, S.P., Williams, S., **Chung, Y.** and Borges, C.R., 2023. Oxidized LDL is stable in human serum under extended thawed-state conditions ranging from -20° C to room temperature. *Journal of Mass Spectrometry and Advances in the Clinical lab*, *27*, pp.18-23.
27. Grill, F.J., Svarovsky, S., Gonzalez-Moa, M., Kaleta, E., Blair, J.E., Lovato, L., Grant, R., Ross, K., Linnehan, B.K., Meegan, J., Reilly, K.S., Brown A., Williams S., **Chung Y.**, Magee D.M., Grys T.E., Lake

D.F., 2023, Development of a rapid lateral flow assay for detection of anti-coccidioidal antibodies. *Journal of Clinical Microbiology*, *61*(9), pp.e00631-23

2022

28. Shome, M., **Chung, Y.**, Chavan, R., Park, J.G., Qiu, J. and LaBaer, J., 2022. Serum autoantibodyome reveals that healthy individuals share common autoantibodies. *Cell Reports*, *39*(9), 110873.
29. O'Kell, A.L., Shome, M., Qiu, J., Williams, S., **Chung, Y.**, LaBaer, J., Atkinson, M.A. and Wasserfall, C., 2022. Exploration of autoantibody responses in canine diabetes using protein arrays. *Scientific Reports*, *12*, 2490.
30. Shome, M., Song, L., Williams, S., **Chung, Y.**, Murugan, V., Park, J.G., Faubion, W., Pasha, S.F., Leighton, J.A., LaBaer, J. and Qiu, J., 2022. Serological profiling of Crohn's disease and ulcerative colitis patients reveals anti-microbial antibody signatures. *World Journal of Gastroenterology*, *28*(30), pp.4089-4101.
31. Kapuruge, E.P., Jehanathan, N., Rogers, S.P., Williams, S., **Chung, Y.** and Borges, C.R., 2022. Tracking the Stability of Clinically Relevant Blood Plasma Proteins with delta-s-cys-albumin – a dilute-and-shoot LC/MS-based marker of specimen exposure to thawed conditions. *Molecular & Cellular Proteomics*, *21*(11), 100420.

2021

32. Song, L., Song, M., Rabkin, C.S., Williams, S., **Chung, Y.**, Van Duine, J., Liao, L.M., Karthikeyan, K., Gao, W., Park, J.G. and Tang, Y., 2021. Helicobacter pylori immunoproteomic profiles in gastric cancer. Journal of Proteome Research. *20*(1), 409-419
33. Stecher, C., Berardi, V., Fowers, R., Christ, J., **Chung, Y.** and Huberty, J., 2021. Identifying app-based meditation habits and the associated mental health benefits: longitudinal observational study. *Journal of Medical Internet Research*, *23*(11), p.e27282.
34. Park, D., Ro, M., Lee, A.J., Kwak, D.W., **Chung, Y.** and Kim, J.H., 2021. Contributory role of BLT2 in the production of proinflammatory cytokines in cecal ligation and puncture-induced sepsis. *Molecules and Cells*, *44*(12), pp.893-899.
35. Song, L., Song, M., Camargo, M.C., Van Duine, J., Williams, S., **Chung, Y**., Kim, K.M., Lissowska, J., Sivins, A., Gao, W. and Karthikeyan, K., 2021. Identification of anti-Epstein-Barr virus (EBV) antibody signature in EBV-associated gastric carcinoma. *Gastric Cancer*, *24*(4), pp.858-867.

2020

36. Lee, T., **Chung, Y.**, Poulton, C.J., Derebail, V.K., Hogan, S.L., Reich, H.N., Falk, R.J. and Nachman, P.H., 2020. Serum albumin at partial remission predicts outcomes in membranous nephropathy. *Kidney International Reports*, *5*(5), pp.706-717.

2019

37. Farias, D.C.S., Gonçalves, L.M., Walter, R., **Chung, Y.** and Blatz, M.B., 2019. Bond strengths of various resin cements to different ceramics. *Brazilian oral research*, *33*, e095.
38. Ruschel, V.C., Stolf, S.C., Shibata, S., **Chung, Y.**, Boushell, L.W., Baratieri, L.N. and Walter, R., 2019. Three-year clinical evaluation of universal adhesives in non-carious cervical lesions. *American Journal of Dentistry*, *32*(5), pp.223-228.
39. Davis, J.M., Ivanova, A., **Chung, Y.**, Shaw, J.R., Rao, K.V., Ptachcinski, J.R., Sharf, A.A., Serody, J.S., Armistead, P.M., Wood, W.A. and Coghill, J.M., 2019. Evaluation of a test dose strategy for

pharmacokinetically-guided busulfan dosing for hematopoietic stem cell transplantation. *Biology of Blood and Marrow Transplantation*, *25*(2), pp.391-397.

2018

40. **Chung, Y.**, Ivanova, A., Hudgens, M.G. and Fine, J.P., 2018. Partial likelihood estimation of isotonic proportional hazards models. *Biometrika*, *105*(1), pp.133-148.
41. Park, J., Jang, J.H., Park, G.S., **Chung, Y.**, You, H.J. and Kim, J.H., 2018. BLT2, a leukotriene B4 receptor 2, as a novel prognostic biomarker of triple-negative breast cancer. *BMB reports*, *51*(8), pp.373-377.
42. Ruschel, V.C., Shibata, S., Stolf, S.C., **Chung, Y.**, Baratieri, L.N., Heymann, H.O. and Walter, R., 2018. Eighteen-month clinical study of universal adhesives in noncarious cervical lesions. *Operative Dentistry*, *43*(3), pp.241-249.
43. Wang, C., Preisser, J., **Chung, Y.** and Li, K., 2018. Complementary and alternative medicine use among children with mental health issues: results from the National Health Interview Survey. *BMC Complementary and Alternative Medicine*, *18*(1), pp.1-17.

Before 2018

44. Boushell, L.W., Heymann, H.O., Ritter, A.V., Sturdevant, J.R., Swift Jr, E.J., Wilder Jr, A.D., **Chung, Y.**, Lambert, C.A. and Walter, R., 2016. Six-year clinical performance of etch-and-rinse and self-etch adhesives. *Dental Materials*, *32*(9), pp.1065-1072.
45. Ritter, A.V., Preisser, J.S., Puranik, C.P., **Chung, Y.**, Bader, J.D., Shugars, D.A., Makhija, S. and Vollmer, W.M., 2016. A predictive model for root caries incidence. *Caries research*, *50*(3), pp.271-278.
46. Lee, T., Derebail, V.K., Kshirsagar, A.V., **Chung, Y.**, Fine, J.P., Mahoney, S., Poulton, C.J., Lionaki, S., Hogan, S.L., Falk, R.J. and Cattran, D.C., 2016. Patients with primary membranous nephropathy are at high risk of cardiovascular events. *Kidney International*, *89*(5), pp.1111-1118.
47. Bak, S.Y., Qi, X.S., Kelly, J.A., Alexander, S., **Chung, Y.**, Gyurdzhyan, S., Patton, L.L. and Lee, S.P., 2016. Dosimetric distribution to tooth-bearing areas in intensity-modulated radiation therapy for head and neck cancer: a pilot study. *Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology*, *121*(1), pp.43-48.
48. Shea, T.C., Walko, C., **Chung, Y.**, Ivanova, A., Sheets, J., Rao, K., Gabriel, D., Comeau, T., Wood, W., Coghill, J. and Armistead, P., 2015. Phase I/II trial of dose-escalated busulfan delivered by prolonged continuous infusion in allogeneic transplant patients. *Biology of Blood and Marrow Transplantation*, *21*(12), pp.2129-2135.
49. Lee, T., Gasim, A., Derebail, V.K., **Chung, Y.**, McGregor, J.G., Lionaki, S., Poulton, C.J., Hogan, S.L., Jennette, J.C., Falk, R.J. and Nachman, P.H., 2014. Predictors of treatment outcomes in ANCA-associated vasculitis with severe kidney failure. *Clinical journal of the American Society of Nephrology*, *9*(5), pp.905-913.
50. Walter, R., Boushell, L.W., Heymann, H.O., Ritter, A.V., Sturdevant, J.R., Wilder Jr, A.D., **Chung, Y.** and Swift Jr, E.J., 2014. Three-year clinical evaluation of a silorane composite resin. *Journal of Esthetic and Restorative Dentistry*, *26*(3), pp.179-190.

51. McFarland, T.B.H., †Quinonez, R.B., Phillips, C., Lee, J. and **Chung, Y.**, 2013. Provision of preventive oral health services to infants and toddlers: North Carolina general dentists' readiness. *Journal of Oral Health and Community Dentistry, 7*(3), pp.140-147.
52. Walter, R., Feiring, A.E., Boushell, L.W., Braswell, K., Bartholomew, W., **Chung, Y.**, Phillips, C., Pereira, P.N. and Swift, E.J., 2013. One-year water sorption and solubility of "all-in-one" adhesives. *Brazilian Dental Journal*, *24*(4), pp.344-348.
53. Essick, G., Phillips, C., **Chung, Y.** and Trotman, C.A., 2013. Effects of lip revision surgery on long-term orosensory function in patients with cleft lip/palate. *The Cleft Palate-Craniofacial Journal*, *50*(5), pp.507-512.
54. Phillips, C., Essick, G.K., **Chung, Y.** and Blakey, G., 2012. Non-invasive therapy for altered facial sensation following orthognathic surgery: an exploratory randomized clinical trial of intranasal vitamin B12 spray. *Journal of Maxillofacial Trauma*, *1*(1), p.20-29.
55. Walter, R., Swift Jr, E.J., Nagaoka, H., **Chung, Y.**, Bartholomew, W., Braswell, K.M. and Pereira, P.N., 2012. Two-year bond strengths of "all-in-one" adhesives to dentine. *Journal of Dentistry*, *40*(7), pp.549-555.
56. Ritter, A.V., Preisser, J.S., **Chung, Y.**, Bader, J.D., Shugars, D.A., Amaechi, B.T., Makhija, S.K., Funkhouser, K.A., Vollmer, W.M. and X-ACT Collaborative Research Group, 2012. Risk indicators for the presence and extent of root caries among caries-active adults enrolled in the Xylitol for Adult Caries Trial (X-ACT). *Clinical Oral Investigations*, *16*(6), pp.1647-1657.

Published Book Chapters:

1. **Chung, Y.**, 2021. Statistical Methods for Analysis of Protein Microarray Data Using R. *Protein Microarrays for Disease Analysis: Methods and Protocols*, pp.269-279.
2. Zink, R.C., Koch, G.G., **Chung, Y.** and Wiener, L.E., 2017. Advanced Randomization-Based Methods. *Analysis of Clinical Trials Using SAS: A Practical Guide*, pp.67-86.

Submitted and Under Revision:

*Brister, D. and **Chung, Y.,** VAROC: value added receiver operating characteristics curve

*Shah, N., Ghasemzadeh, H., and **Chung, Y.** Tree-guided machine learning for precision diagnostics.

Software development

Developed R packages available on the comprehensive R archive network (CRAN):

1. btrm: Bayesian treed regression model for personalized prediction and precision diagnostics, 2025
2. tgml: tree guided machine learning for personalized prediction and precision diagnostics, 2025
3. coxphm: pseudo-Cox proportional hazards models with missing survival times, 2024
4. varoc: value added ROC curve, 2023
5. persDx: personalized diagnostics rules for precision diagnostics, 2022
6. aisoph: additive isotonic proportional hazards model, 2022
7. isoSurv: isotonic regression with survival data, 2020
8. surrosurvROC: surrogate survival ROC, 2018
9. uniah: unimodal additive hazards model, 2015

Scholarly Presentations

Invited:

1. "Statistical analysis for NAPPA protein array", National Taiwan University, Taipei City, Taiwan (R.O.C.), 06/2025
2. "Tree-guided personalized prediction with applications to precision diagnostics", Korean International Statistical Society, 02/2025
3. "Precision diagnostics for biomarker studies, Department of Epidemiology and Biostatistics", Mel and Enid Zuckerman College of Public Health, University of Arizona, Tucson, AZ, 04/2023
4. "Estimation of disease progression rate using longitudinal surrogate outcomes in non-randomized validation subsample", Conference on Lifetime Data Science, Storrs, CT, 06/2017
5. "Isotonic proportional hazards models with its application to clinical trial data", Center for Drug Evaluation Research, Food and Drug Administration, Silver Spring, DC, 01/2016
6. "Order restricted inference in hazards regression models with application to clinical trial data", National Institute of Environmental Health Sciences, National Institutes of Health, Durham, NC, 10/2015

Contributed:

7. "Estimation of linear personalized diagnostics rules", Eastern North American Region of the International Biometric Society, Baltimore, MD, 03/2024
8. "Precision diagnostics for cancer biomarker research", Stat4Onc Annual Symposium, Knight Cancer Center, Oregon Health Science & University, Portland, OR, 05/2023
9. "Order-restricted survival analysis with applications to optimal dose-finding in phase 1 oncology trials", Duke-Industry Statistics Symposium, Durham, NC, 03/2023
10. "Evaluation of biomarkers for heterogeneous case-control studies", Joint Statistical Meetings, Seattle, WA, 08/2021
11. "Personalized diagnostic rule for NAPPA", Arizona Wellbeing Commons Conference, Phoenix, AZ, 09/2019
12. "A deep learning approach to gene interaction prediction", The Statistical and Applied Mathematical Sciences Institute, Durham, NC, 08/2019
13. "Shape restricted additive hazards models", Eastern North American Region of the International Biometric Society, Washington, DC, 03/2017
14. "Partial likelihood estimation of isotonic proportional hazards model", Eastern North American Region of the International Biometric Society, Miami, FL, 03/2015
15. "Statistical challenges in investigating the effect of Busulfan delivered by targeted pharmacokinetics in Phase I oncology trial", International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, NC, 10/2014

Awarded Grants and Contracts

Active:

1. RFGA2022-010-20 (PI: LaBaer), Arizona Biomedical Research Commission, "Comprehensive genomic and immunological analysis to improve personalized management of Lynch syndrome", Co-investigator, $750,000, 30% effort, 01/2023-01/2026

2. U01CA281660 (PI: Anderson), National Cancer Institute, "Southwest EDRN clinical validation center for head and neck cancer", Co-investigator, $5,810,685, 14% effort, 08/2023-07/2028
3. R01 CA286128 (PI: Qiu), National Cancer Institute, "Serum biomarkers to predict immune related adverse events and benefit from single agent pembrolizumab therapy in early stage triple negative breast cancer", Co-investigator, $3,950,448, 20% effort, 12/2023-11/2028
4. U2C CA271903 (PI: LaBaer), National Cancer Institute, "High-throughput immunoproteomics for cancer biomarker discovery", Co-investigator, $5,517,516, 11% effort, 09/2022-08/2027
5. U01 IP001180 (PI: Murugan), Centers for Disease Control and Prevention, "Platform to assess influenza and COVID-19 vaccine effectiveness in underserved Arizona populations - components A & D", Co-investigator, $12,999,999, 10% effort, 09/2022-09/2027

Completed:

6. W911NF19C0039 (PI: LaBaer), Defense Advanced Research Projects Agency, "Diagnostic epigenetics of infectious agents and chemical toxicity", Co-investigator, $4,539,173, 5% effort, 07/2019-12/2020
7. R01 AI55954 (PIs: Magee & Lake), National Institute of Allergy and Infectious Diseases, "Serological biomarkers for coccidioidomycosis", Co-investigator, $1,518,970, 10% effort, 06/2021-05/2025
8. 2950007-01 (PI: LaBaer), Northern Arizona University (Prime: Arizona Board of Regents), "Arizona universities collaborate on CoV-2 variant detection, monitoring, and impact", Co-investigator, $1,000,000, 16% effort, 07/2021-12/2022
9. U01 CA214201 (PI: LaBaer), National Cancer Institute, "Novel approaches to study immune responses to post translational modifications for cancer detection", Co-investigator, $2,622,242, 10% effort, 09/2021-08/2022
10. 21X089 (PI: LaBaer), Leidos (Prime: National Cancer Institute), "Multiplexed in-solution serological test for SARS-CoV-2, human coronaviruses and other respiratory pathogens", Co-investigator, $14,922,843, 15% effort, 10/2021-09/2025
11. R21 CA250999 (PI: Borges), National Cancer Institute, "Aliquot-level visual indicators of biospecimen exposure to thawed conditions", Co-investigator, $617,052, 25% effort, 02/2022-01/2025
12. R21 CA26909 (PI: Borges), National Cancer Institute, "Plate reader assays to forensically assess exposure of plasma and serum to thawed conditions", Collaborator, $199,584, 10% effort, 06/2022-05/2025
13. ARI-299909 (PI: LaBaer), Mayo Clinic, "Tailoring perianal Crohn's Disease management through molecular fingerprinting: developing more personalized and effective therapeutic strategies", Co-investigator, $174,002, 25% effort, 06/2022-06/2023
14. ARI-303156 (PI: LaBaer), ASU-Mayo Clinic Seed Grant, "Comprehensive genomic and immunological analysis to improve personalized management of Lynch syndrome", Co-investigator, $60,000, 25% effort, 07/2022-06/2023
15. 1R34 AA030489-01 (PI: Ogbonnaya), National Institute on Alcohol Abuse and Alcoholism, "Improving HIV care engagement among Ugandan adolescent girls and young women through reductions in male partner alcohol use and intimate partner violence risk: the Kisoboka Mukwano intervention", Co-investigator, $662,079, 10% effort, 09/2022-08/2025

16. 20887 (PI: Murugan), University of Maryland, Baltimore (Prime: Defense Advanced Research Projects Agency), "Assessing immune memory", Co-investigator, $1,504,348, 15% effort, 12/2022-11/2024

Teaching at ASU (unless stated otherwise)

Courses Taught:

BST 601: Biostatistical Theory and Inference, 2024 Fall
BMI 517: Advanced Biostatistics for Biomedical Research and Health Care, 2022-2025 Spring
BMI 515: Applied Biostatistics in Medicine and Informatics, 2020-2023, 2025 Fall
BMI 211: Modelling Biomedical Decisions, 2019-2021 Spring
HCD 300: Biostatistics, 2019 Fall

Guest Lectures:

Survival Analysis for BIOS 600: Principles of Statistical Inference, University of North Carolina at Chapel Hill, 2012
Survival Analysis for BMI 461: Advanced Topics in Biomedical Informatics I, 2018

Workshops:

"Selection bias, propensity score matching, and sensitivity analysis", Patient-Centered Outcomes Research (PCOR) Workshop, Southwest Safety Net Embedded Scientist Training and Research Center, 10/2025
"Analysis of ASU's COVID-19 serological survey data", College of Health Solutions, 02/2022
"Practical statistics for graduate studies", Biodesign Institute, 10/2021
"Biomarker evaluation using receiver operating characteristics curve", Biodesign Institute, 02/2020
"Fundamental of biostatistics", Bioinformatics Core Lab Workshops, Knowledge Enterprise, 05/2019

Curriculum Development and Improvement

2024 BST 601: Biostatistical Theory and Inference
2021 SAS Specialization for BMI 515 and BMI 517

Mentoring

Chair, Dissertation or Thesis Committee:

Doctoral:

Yaliang Zhang (co-advisor: Robert McCulloch), Statistics, 2024
Ryan Fowers (co-advisor: Chad Stecher), Biomedical Informatics, 2023

Master's:

Cayden Goeringer (co-advisor: Jeniffer Broatch), Biological Data Science, 2024
Nishtha Shah (co-advisor: Kookjin Lee), Computer Science, 2023

Undergraduate:

Danielle Brister, Barrett, The Honors College, 2021

Member, Dissertation or Thesis Committee:

Doctoral:

Nooshin Chatrudi, Biomedical Informatics, 2025-present
Meredith Abrams, Biomedical Informatics, 2020-present
Ruoqian Liu, Statistics, 2025
Shalini Sivanandam, Biomedical Informatics, 2023
Mariah Sullivan, Exercise & Nutritional Science, 2022
Robert Yao, Biomedical Informatics, 2018

Master's:

Aashritha Machiraju, Computer Science, 2025-present
Tianchen Mu, Computer Science, 2023

Undergraduate:

Erick Enriquez, Barrett, The Honors College, 2025

Director, Applied or Capstone Projects

Master's:

Tanvi Patel, Data Science, Analytics and Engineering, 2025-present
Shivani Shah, Biostatistics – BST 593, 2025
Jocelyn Aleman, Biostatistics – BST 593, 2025
Akshaya Gunasekaran, Biomedical Informatics, 2024
Sayantani Mukherjee, Biomedical Informatics, 2024
Radiya Imran, Statistics, 2023 & 2025
Shilpa Baskaran, Biomedical Informatics – BMI 593, 2023
Ryan Hayden, Statistics, 2022-2023
Iphsa Banerjee, Biomedical Informatics, 2021
Surya Tenneti, Computer Science, 2020
Ketan Patil, Computer Science, 2019
Aditya Sharma, Computer Science, 2018-2020

Undergraduate:

Mohamad Sadaat, Biomedical Informatics – BMI 482 & 483, 2022-2023
Alvi Habib, Computer Science, 2020
Rohit Nandakumar, Barrett, The Honors College – Honors Enrichment Contract, 2020
Alisha Thomas, Biomedical Informatics, 2019

Supervisors, Staff Statisticians

Stacy Williams, 2019-2024
Paul Maranian, 2018

Service

Professional

Sigma Xi, The Scientific Research Honor Society

2023 Spring Judge, Research Showcase for High School Students
2021 Spring Judge, Research Showcase for High School Students

Early Detection Research Network (EDRN) Statistical Working Group, National Cancer Institute

2022 Fall-present Member

Ad hoc Journal Reviewer

Analytics; Biometrics; Computer Methods and Programs in Biomedicine; Multidisciplinary Digital Publishing Institute; Journal of the American Medical Informatics Association; Journal of Biomedical Informatics; Journal of Computational and Graphical Statistics; Journal of the American Statistical Association; Journal of the Royal Statistical Society: Series B; Stat; Statistics in Biosciences; Statistical Computation and Simulation; The Annals of Applied Statistics; The R Journal

ASU

College of Health Solutions

Tenure-Track Ad Hoc Review Committee

2025 Spring	Member
2023 Spring	Member
2020 Spring	Member

Faculty Hiring Committee

2024 Spring	Member
2022 Spring	Member
2021 Spring	Member
2020 Spring	Member

Faculty Service Committee

2019 Spring	Member

Peer Teaching Evaluation

2023 Spring	Reviewer
2022 Spring	Reviewer
2020 Fall	Reviewee

Biostatistics Consulting Core

2024 Spring-present	Member

Biomedical Informatics and Data Science Program, College of Health Solutions

Admission Committee

2025 Fall-present	Chair
2022 Fall-2024 Spring	Chair
2020 Spring-2022 Spring	Member

Academic Program Committee

2024 Fall-present	Member
2023 Spring	Member
2018 Fall-2019 Spring	Member

PhD Comprehensive and Oral Exam Committee

2020 Fall-2024 Spring	Member

Biomedical Informatics & Diagnostics Research Symposium

2020 Spring	Poster Judge

Biostatistics Program, College of Health Solutions

Admission Committee

2024 Spring-present	Member