

# Jared C. Foster, PhD

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## Education

2008–2013 PhD, Biostatistics, University of Michigan (Advisors: Jeremy Taylor, Bin Nan)  
2006–2008 MS, Biostatistics, UCLA  
2001–2006 BS, Applied Mathematics, University of Wisconsin-Parkside

## Research Interests

oncology clinical trial design; personalized medicine; prediction; subgroup identification; variable selection

## Professional Experience

2017 – *Mathematical Statistician*, Biostatistics Branch, Biometric Research Program, Division of Cancer Treatment and Diagnosis, National Cancer Institute  
2016–2017 *Assistant Professor of Biostatistics*, Mayo Clinic College of Medicine  
2015–2017 *Research Associate*, Section of Cancer Center Statistics, Mayo Clinic

## Other Experience and Training

2013–2015 *IRTA Postdoctoral Fellow*, Biostatistics and Bioinformatics Branch, Division of Intramural Population Health Research, *Eunice Kennedy Shriver* National Institute of Child Health and Human Development  
2011–2013 *Graduate Student Research Assistant*, University of Michigan, Biostatistics Department  
2008–2011 *Trainee*, NIH Biostatistics Training in Cancer Research Grant, University of Michigan, Biostatistics Department  
2008 *Research Specialist*, University of Wisconsin-Milwaukee, Department of Industrial Engineering

2008 Graduate Student Research Assistant, The Semel Institute for Neuroscience and Human Behavior

## Awards

2023 NIH Director's Award: ASPS Trial Group

2020 NIH Special Act or Service Award: For significant biostatistical contributions to the rapid development and launch of the NCI COVID-19 in Cancer Patients Study (NCCAPS) and TRC-10446 Tocilizumab trial

2019 NCI Director's Award of Merit: Triapine Clinical Development Group

2013 ENAR Distinguished Student Paper Award

## Refereed Research Articles

1. Zhang, J, Lee, J, Urba, S, **Foster, J** and Worden, F (2010), A phase II trial evaluating weekly docetaxel and capecitabine in patients with metastatic or advanced, locally recurrent head and neck cancers, *Cancer Investigation*, 28(9):910-6
2. **Foster, JC**, Taylor, JMG and Ruberg, SJ (2011), Subgroup identification from randomized clinical trial data, *Statistics in Medicine*, 30(24):2867-2880
3. **Foster, JC**, Taylor, JMG and Nan, B (2013), Variable selection in monotone single-index models via the adaptive LASSO, *Statistics in Medicine*, 32(22):3944-54
4. Mason, H, DeRubeis, MB, **Foster, JC**, Taylor, JMG, Friese, C and Worden, FP (2013), Outcomes Evaluation of a Weekly Nurse Practitioner-Managed Symptom Management Clinic for Patients with Head and Neck Cancer Treated with Chemoradiotherapy, *Oncology Nursing Forum*, 40(6):581-6
5. Waterman, J, Nadeem, E, Paczkowski, E, **Foster, JC**, Lange, J, Belin, TR and Miranda, J (2013), Pre-Placement Risk and Longitudinal Cognitive Development for Children Adopted from Foster Care, *Child Welfare*, 92(4):9-30
6. Taylor, JMG, Cheng, W, and **Foster, JC** (2014), Reader Reaction to "A robust method for estimating optimal treatment regimes" by Zhang et al (2012), *Biometrics*, doi: 10.1111/biom.12228
7. **Foster, JC**, Taylor, JMG, Kaciroti, N and Nan, B (2014), Simple Subgroup Approximations to Optimal Treatment Regimes From Randomized Clinical Trial Data (2014), *Biostatistics*, doi: 10.1093/biostatistics/kxu049
8. **Foster, JC**, Nan, B, Shen, L, Kaciroti, N and Taylor, JMG (2015), Permutation Testing for Treatment-Covariate Interactions and Subgroup Identification, *Statistics in Biosciences*, doi: 10.1007/s12561-015-9125-9

9. **Foster, JC**, Liu, D, Albert, PS and Liu, A, Identifying Subgroups of Enhanced Predictive Accuracy From Longitudinal Biomarker Data Using Tree-Based Approaches: Applications to Fetal Growth, *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, doi: 10.1111/rssa.12182
10. Nadeem, E, Waterman, J, **Foster, J**, Paczkowski, E, Belin, TR and Miranda, J. Long-term effects of pre-placement risk factors on children's psychological symptoms and parenting stress among children adopted from foster care, *Journal of Emotional and Behavioral Disorders*, 2017 Jun;25(2):67-81. doi: 10.1177/1063426615621050
11. Freedman RA, **Foster JC**, Seisler DK, Lafky JM, Muss HB, Cohen HJ, Mandelblatt J, Winer EP, Hudis CA, Partridge AH, Carey LA, Cirincione C, Moreno-Aspitia A, Kimmick G, Jatoi A, Hurria A. (2016), Accrual of Older Breast Cancer Patients to Alliance Systemic Therapy Trials over Time: Protocol A151527, *Journal of Clinical Oncology*, 2017 Feb;35(4):421-431. doi: 10.1200/JCO.2016.69.4182
12. Freedman RA, Seisler DK, **Foster JC**, Lafky JM, Kimmick G, Hurria A, Cohen HJ, Winer EP, Hudis CA, and Muss HB (2016), Risk of Acute Myeloid Leukemia and Myelodysplastic Syndrome Among Older Women Receiving Anthracycline-Based Adjuvant Chemotherapy for Breast Cancer on Modern Cooperative Group Trials (Alliance A151511), *Breast Cancer Research and Treatment*, 2017 Jan;161(2):363-373. doi: 10.1007/s10549-016-4051-1
13. Himmelstein A, **Foster JC**, Khatcheressian JL, Roberts JD, Seisler DK, Novotny PJ, Qin R, Go RS, Grubbs SS, O'Connor T, Velasco MR, Weckstein D, O'Mara A, Loprinzi CL, and Shapiro CL (2017), Effect of longer interval dosing vs. standard dosing of zoledronic acid on skeletal events among patients with bone metastasis: a randomized clinical trial. *Journal of the American Medical Association*, 317(1):48-58. doi:10.1001/jama.2016.19425
14. **Foster JC**, Le-Rademacher JG, Feliciano JL, Gajra A, Seisler DK, DeMatteo R, Lafky JM, Hurria A, Muss HB, Cohen HJ and Jatoi A (2017), Comparative "nocebo effects" in older patients enrolled in cancer therapeutic trials: Observations from a 446-patient cohort, *Cancer*, 123: 4193-4198. doi:10.1002/ncr.30867
15. Shapiro CL, Moriarty JP, Dusetzina S, Himmelstein AL, **Foster JC**, Grubbs SS, Novotny PJ, and Borah BJ (2017), Cost-Effectiveness Analysis of Monthly Zoledronic Acid, Zoledronic Acid Every 3 Months, and Monthly Denosumab in Women With Breast Cancer and Skeletal Metastases: CALGB 70604 (Alliance), *Journal of Clinical Oncology* 35:35, 3949-3955
16. Tallarico M, **Foster JC**, Seisler D, Lafky JM, Hurria A, Jatoi A, Cohen HJ, Muss HB, Bartlett N, Cheson BD, Jung SH, Leonard JP, Byrd JC, and Nabhan C, Frequency and Impact of Grade 3/4 Toxicities of Biologics on Outcomes of Elderly Patients with Chronic Lymphocytic Leukemia and Non-Hodgkin Lymphoma (Alliance A151611), *Journal of Geriatric Oncology* 2018 9(4):321-328, 2018

17. **Foster JC**, Freidlin B, Kunos CA, Korn EL: Single-Arm Phase II Trials of Combination Therapies: A Review of the CTEP Experience 2008–2017, *Journal of the National Cancer Institute*, djz193, <https://doi.org/10.1093/jnci/djz193>, 2019
18. **Foster JC**, Freidlin B, Korn EL, Smith MA, An Evaluation of the Contribution of Randomized Cancer Clinical Trials Evaluating Agents without Documented Single Agent Activity, *ESMO Open* 5(5), 2020
19. Reuss JE, Stern D, **Foster J**, Ramaswami R, Lurain K, Chen H, Streicher H, Kem R, Little RF, Sharon E, Inclusion of people living with HIV in anti-PD(L)1 clinical trials: Results of an NCI-driven initiative to broaden eligibility in cancer clinical trial development, *JAMA Network Open* 3(12):e2027110, 2020
20. Chen AP, Kummar S, Moore N, Rubinstein LV, Zhao Y, Williams PM, Palmisano A, Sims D, O’Sullivan Coyne G, Rosenberger CL, Simpson M, Raghav KPS, Meric-Bernstam F, Leong S, Waqar S, **Foster JC**, Konate MM, Biswajit D, Karlovich C, Lih CJ, Polley E, Simon R, Li MC, Piekarz R and Doroshow JH, Molecular Profiling-Based Assignment of Cancer Therapy (NCI-MPACT): A Randomized Multicenter Phase 2 Trial, *JCO Precision Oncology* 5:133-144, 2021
21. Tolaney SM, Garrett-Mayer E, White J, Blinder VS, **Foster JC**, Kordestani LA, Hwang ES, Bliss JM, Rakovitch E, Perlmutter J, Spears PA, Frank E, Tung NM, Elias AD, Cameron D, Denduluri N, Best AF, DiLeo A, Baizer L, Butler LP, Schwartz E, Winer EP and Korde LA, Updated standardized definitions for efficacy endpoints in adjuvant breast cancer clinical trials: STEEP Version 2.0 *Journal of Clinical Oncology* 2021 39:24, 2720-2731
22. O’Sullivan Coyne G, Kumar S, Hu J, Ganjoo K, Chow WA, Do KT, Zlott J, Bruns A, Rubinstein L, **Foster JC**, Juwara L, Meehan R, Piekarz R, Streicher H, Sharon E, Takebe N, Regier Voth A, Bottaro D, Costello R, Wright JJ, Doroshow J and Chen AP, Clinical activity of single-agent cabozantinib (XL184), a multi-receptor tyrosine kinase inhibitor, in patients with refractory soft tissue sarcomas, *Clinical Cancer Research* December 10 2021 DOI: 10.1158/1078-0432.CCR-21-2480
23. Le-Rademacher J, Mohile S, Unger J, Hudson MF, **Foster J**, Lichtman S, Perlmutter J, Dotan E, Extermann M, Dodd K, Tew W, Klepin H, Wildes TM, Sedrak MS, Jatoi A, and Little RF, Trial Design Considerations to Increase Older Adult Accrual to National Cancer Institute Clinical Trials, *JNCI Monographs*, 2022 2022:60, 135-141
24. Sharon E and **Foster JC**, Design of phase II oncology trials evaluating combinations of experimental agents, *JNCI: Journal of the National Cancer Institute*, 2023, djad052, <https://doi.org/10.1093/jnci/djad052>
25. Litton JK, Regan MM, Pusztai L, Rugo HS, Tolaney SM, Garrett-Mayer E, Amiri-Kordestani L, Basho RK, Best AF, Boileau JF, Denkert C, **Foster JC**, Harbeck N, Jacene HA, King TA, Mason G, O’Sullivan CC, Prowell TM, Richardson AL, Sepulveda KA, Smith ML, Tjoe JA, Turashvili G, Woodward WA, Butler LP, Schwartz EI, and

- Korde LA, Standardized definitions for efficacy endpoints in neoadjuvant breast cancer clinical trials: NeoSTEEP, *Journal of Clinical Oncology*, 2023 Jul 11;JCO2300435. doi: 10.1200/JCO.23.00435
26. Chen A, Sharon E, O’Sullivan G, Moore N, **Foster J**, Hu J, Van Tine B, Conley A, Read W, Riedel R, Burgess M, Glod J, Davis E, Naquash AR, Fino K, Miller B, Wilsker D, Begum A, Ferry-Galow K, Deshpande H, Schwartz G, Ladle B, Okuno S, Beck J, Chen J, Fogli L, Rosenberger CL, Parchment R, and Doroshow J, Atezolizumab for Advanced Alveolar Soft Part Sarcoma, *N Engl J Med*. 2023 Sep 7;389(10):911-921. doi: 10.1056/NEJMoa2303383. PMID: 37672694; PMCID: PMC10729808
  27. **Foster JC**, Korn EL, Freidlin B, Moscow J, The potential to backfill in phase I trials: the National Cancer Institute’s Cancer Therapy Evaluation Program experience, *JNCI Cancer Spectrum*, Volume 7, Issue 6, December 2023, pkad102, <https://doi.org/10.1093/jncics/pkad102>
  28. Mckonkey DJ, Baumann BC, Greenberg SC, DeGraff DJ, Delacroix SE, Efstathiou JA, **Foster J**, Groshen S, Kadel EE, Khani F, Kim WY, Lerner SP, Levin T, Liao JC, Milowsky MI, Meeks JJ, Miyamoto DT, Mouw KW, Pietzak EJ, Solit DB, Sundi D, Tawab-Amiri A, West PJ, Wobker SE, Wyatt AW and Apolo AB, Ensuring successful biomarker studies in bladder preservation clinical trials for non-muscle invasive bladder cancer, *Bladder Cancer* (in press)

## Book Chapters

1. **Foster JC**, Le-Rademacher J, Mandrekar SJ: Design Considerations for Phase II Oncology Clinical Trials, in Roychoudhury S, Lahiri S (ed): *Statistical Approaches in Oncology Clinical Development*. Boca Raton, FL, CRC Press, 2018, pp 97-114

## Invited Talks

1. Conference on Multiple Comparison Procedures, Washington, DC, (9/2011)
2. Conference on Statistical Learning and Data Mining, Ann Arbor, MI, (6/2012)
3. Novartis Biostatistics Workshop, East Hanover, NJ, (6/2013)
4. Joint 24th ICSA Applied Statistics Symposium and 13th Graybill Conference, Fort Collins, CO, (6/2015)
5. International Biometric Society ENAR Meeting, Washington, DC, (3/2017)
6. Survival, Longitudinal and Multivariate Data (SLAM) Working Group Seminar, Johns Hopkins University, Baltimore, MD, (12/17)
7. SLAM Working Group Seminar, Johns Hopkins University, Baltimore, MD, (3/2018)
8. Alliance for Clinical Trials in Oncology Faculty Statistician Meeting (Virtual), (7/2021)
9. Department of Biostatistics Seminar, University of Pittsburgh (Virtual), (10/2021)

10. SLAM Working Group Seminar, Johns Hopkins University (Virtual), (10/2022)
11. ICSA Applied Statistics Symposium, Ann Arbor, MI, (6/2023)

## Contributed Talks

1. International Biometric Society ENAR Meeting (poster), New Orleans, LA, (3/2010)
2. Michigan Student Symposium for Interdisciplinary Statistical Sciences (poster), Ann Arbor, MI, (4/2010)
3. International Biometric Society ENAR Meeting, Miami, FL, (3/2011)
4. Joint Statistical Meeting, San Diego, CA, (8/2012)
5. International Biometric Society ENAR Meeting, Orlando, FL, (3/2013)
6. Joint Statistical Meeting (topic contributed), Montreal, Canada, (8/2013)
7. International Biometric Society ENAR Meeting, Baltimore, MD, (3/2014)
8. Joint Statistical Meeting, Boston, MA, (8/2014)

## Referee Service

American Journal of Preventive Medicine  
Biometrics  
Biostatistics  
Clinical Trials  
Current Problems in Cancer  
eLife  
JAMA Network Open  
JAMA Oncology  
Journal of the American Statistical Association  
Journal of Clinical Oncology  
Journal of the National Cancer Institute  
Journal of the Royal Statistical Society: Series A  
Nature Medicine  
Paediatric and Perinatal Epidemiology  
Scandinavian Journal of Statistics  
Scientific Reports  
Statistics in Biosciences  
Statistics in Medicine  
Statistical Methods in Medical Research  
Therapeutic Innovations & Regulatory Science

## Institutional Committees

2017– NRG Oncology Data Monitoring Committee (Panel B) (non-voting member)

- 2017– AMC Data and safety Monitoring Board (non-voting member)
- 2017– NCI Breast Cancer Steering Committee
- 2017– NCI Genitourinary Cancer Steering Committee
- 2017–2022 ANCHOR Data and Safety Monitoring Board (non-voting member)
- 2016 Mayo Clinic Scientific Review Committee B (Solid Tumor)
- 2016 Mayo Clinic Scientific Review Committee A (Hematology)

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