

Emine O. Bayman, PhD

College of Public Health Curriculum Vitae
Department of Biostatistics
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Educational and Professional History

Degrees Earned

- 1999 BS in Statistics, Hacettepe University, Faculty of Science, Ankara, Turkey
- 2002 MS in Biostatistics, Uludag University, School of Medicine, Bursa, Turkey
- 2004 MS in Biostatistics, University of Iowa, College of Public Health, Iowa City, Iowa
- 2008 PhD in Biostatistics, University of Iowa, College of Public Health, Iowa City, Iowa
Mentors: Kathryn Chaloner, Mary Kathryn Cowles

Employment History

- 2000 - 2003 Research/Teaching Assistant, Department of Biostatistics, Uludag University, School of Medicine, Bursa, Turkey
- 2004 - 2005 Research Assistant, Biostatistics Consulting Center, University of Iowa, College of Public Health, Iowa City, Iowa
- 2005 - 2008 Research Assistant, Department of Biostatistics, University of Iowa, College of Public Health, Iowa City, Iowa
- 2008 Teaching Assistant, Statistical Methods in Clinical Trials, Department of Biostatistics, College of Public Health/University of Iowa, Iowa City, Iowa
- 2008 - 2011 Associate, Department of Anesthesia, University of Iowa Health Care, Carver College of Medicine, Iowa City, Iowa
- 2008 - 2011 Associate (Secondary Faculty), Department of Biostatistics, University of Iowa, College of Public Health, Iowa City, Iowa
- 2011 - 2017 Assistant Professor, Department of Anesthesia, University of Iowa Health Care, Carver College of Medicine, Iowa City, Iowa
- 2011 - 2017 Assistant Professor (Secondary Faculty), Department of Biostatistics, University of Iowa, College of Public Health, Iowa City, Iowa
- 2017 - 2019 Associate Professor, Department of Anesthesia, University of Iowa, Carver College of Medicine, Iowa City, Iowa
- 2017 - 2019 Associate Professor (Secondary Faculty), Department of Biostatistics, University of Iowa, College of Public Health, Iowa City, Iowa
- 2019 - 2025 Associate Professor, Department of Biostatistics, University of Iowa, College of Public Health, Iowa City, Iowa
- 2019 - 2025 Associate Professor (Secondary Faculty), Department of Anesthesia, University of Iowa, Carver College of Medicine, Iowa City, Iowa

- 2019 - Present Deputy Director, Clinical Trials Statistical & Data Management Center (CTSDMC), Department of Biostatistics, University of Iowa, College of Public Health, Iowa City, Iowa
- 2025 - Present Professor, Department of Biostatistics, University of Iowa, College of Public Health, Iowa City, Iowa
- 2025 - Present Professor (Secondary Faculty), Department of Anesthesia, University of Iowa, Carver College of Medicine, Iowa City, Iowa

Honors and Awards

- 2003 - 2007 Graduate Education Scholarship, Council of Higher Education, Turkey, Bursa, Turkey
- 2007 Poster Competition Winner, University of Iowa, Carver College of Medicine, Iowa City, Iowa
- 2007 Tuition Scholarship, University of Iowa, College of Public Health, Department of Biostatistics, Iowa City, Iowa
- 2007 Accommodation and Travel Award, Design and Analysis Experiments (DAE) Conference, Memphis, Tennessee
- 2008 Travel Award, Bayesian Biostatistics Conference, Houston, Texas
- 2013 Best Abstract Award, American Society of Anesthesiologists (ASA), San Francisco, California
- 2020 Inducted into Delta Omega Honorary Society in Public Health, College of Public Health/University of Iowa, Iowa City, Iowa
- 2021 CPH Faculty Service Award, College of Public Health/University of Iowa, Iowa City, Iowa
- 2022 International Travel Award, University of Iowa, Iowa City, Iowa

Teaching

Course Teaching

University of Iowa

- Spring 2008 Statistical Methods in Clinical Trials, 171:266, Credit Hours: 3, Percent of Course: 33.0%
- Spring 2009 Statistical Methods in Clinical Trials, 171:266, Credit Hours: 3, Percent of Course: 33.0%
- Summer 2009 Introduction to Biostatistics, 171:161, Credit Hours: 3, Percent of Course: 100.0%
- Fall 2009 Biostatistics for Biomedical Research, 156:204, Credit Hours: 1, Percent of Course: 100.0%
Taught during November 2009
- Spring 2010 Biostatistics for Biomedical Research, 156:204, Credit Hours: 1, Percent of Course: 100.0%
Taught during April 2010
- Spring 2010 Statistical Methods in Clinical Trials, 171:266, Credit Hours: 3, Percent of Course: 33.0%

Fall 2010 Biostatistics for Biomedical Research, 156:204, Credit Hours: 1, Percent of Course: 100.0%
Taught during November 2010

Spring 2011 Statistical Methods in Clinical Trials, 171:266, Credit Hours: 3, Percent of Course: 33.0%

Fall 2011 Biostatistics for Biomedical Research, 156:204, Credit Hours: 1, Percent of Course: 100.0%
Taught during November 2011

Spring 2012 Statistical Methods in Clinical Trials, 171:266, Credit Hours: 3, Percent of Course: 33.0%

Fall 2012 Biostatistics for Biomedical Research, 156:204, Credit Hours: 1, Percent of Course: 100.0%
Taught during November 2012

Spring 2013 Statistical Methods in Clinical Trials, 171:266, Credit Hours: 3, Percent of Course: 33.0%

Spring 2014 Statistical Methods in Clinical Trials, 171:266, Credit Hours: 3, Percent of Course: 33.0%

Fall 2014 Biostatistics for Biomedical Research, 156:204, Credit Hours: 1, Percent of Course: 100.0%
Taught during November 2014

Spring 2015 Statistical Methods in Clinical Trials, 171:266, Credit Hours: 3, Percent of Course: 33.0%

Spring 2016 Statistical Methods in Clinical Trials, BIOS:6610, Credit Hours: 3, Percent of Course: 20.0%

Fall 2016 Advanced Clinical Trials Seminar, BIOS:7600, Iowa City, Iowa

Fall 2016 Advanced Clinical Trials Seminar, BIOS:7600
Responsibility: Bayesian lectures

Spring 2017 Statistical Methods in Clinical Trials, BIOS:6610, Credit Hours: 3, Percent of Course: 20.0%

Spring 2018 Statistical Methods in Clinical Trials, BIOS:6610, Credit Hours: 3, Percent of Course: 20.0%

Fall 2018 Advanced Clinical Trials Seminar, BIOS:7600
Responsibility: Bayesian lectures

Spring 2019 Statistical Methods in Clinical Trials, BIOS:6610, Credit Hours: 3

Fall 2019 Biostatistical Methods I, BIOS:5710:0001, Credit Hours: 4, Enr: 14, Percent of Course: 100.0%

Spring 2020 Statistical Methods in Clinical Trials, BIOS:6610, Credit Hours: 3

Fall 2020 Advanced Clinical Trials Seminar, BIOS:7600

Fall 2020 Biostatistical Methods I, BIOS:5710:0001, Credit Hours: 4, Enr: 20, Percent of Course: 100.0%

Fall 2021 NINDS Clinical Trials Methodology Course (CTMC), Credit Hours: 15
Role: Team Teacher

Fall 2021	Applied Categorical Data Analysis, BIOS:5130:0001, Credit Hours: 3, Enr: 13, Percent of Course: 100.0%
Fall 2022	Biostatistical Methods I, BIOS:5710:0001, Credit Hours: 4, Enr: 13, Percent of Course: 100.0%
Fall 2023	Biostatistical Methods I, BIOS:5710:0001, Credit Hours: 4, Enr: 10, Percent of Course: 100.0%
Fall 2024	Advanced Clinical Trials, BIOS:7230:0001, Credit Hours: 3, Enr: 5
Fall 2025	Biostatistical Methods I, BIOS:5710:0001, Credit Hours: 4, Enr: 11, Percent of Course: 100.0%

Other Institutions

Spring 2000	Introduction to Biostatistics II, Uludag University School of Medicine, Bursa, Turkey, Credit Hours: 3 Role: Teaching Assistant
Fall 2000	Data Analysis with Statistical Packages I, Uludag University School of Medicine, Bursa, Turkey, Credit Hours: 3 Role: Teaching Assistant
Fall 2000	Introduction to Biostatistics I, Uludag University School of Medicine, Bursa, Turkey, Credit Hours: 3 Role: Teaching Assistant
Spring 2001	Data Analysis with Statistical Packages II, Uludag University School of Medicine, Bursa, Turkey, Credit Hours: 3 Role: Teaching Assistant
Spring 2001	Introduction to Biostatistics II, Uludag University School of Medicine, Bursa, Turkey, Credit Hours: 3 Role: Teaching Assistant
Fall 2001	Data Analysis with Statistical Packages I, Uludag University School of Medicine, Bursa, Turkey, Credit Hours: 3 Role: Teaching Assistant
Spring 2002	Survival Data Analysis, Uludag University School of Medicine, Bursa, Turkey, Credit Hours: 3 Role: Teaching Assistant
Fall 2002	Introduction to Biostatistics I, Uludag University School of Medicine, Bursa, Turkey, Credit Hours: 3 Role: Teaching Assistant

Publications or creative works

Peer-reviewed papers and journal articles

1. Kurt, E., Evrensel, T., Gonullu, G., Kanat, O., Demiray, M., Arslan, M., **Unlu (Bayman), E. O.**, Dilek, K. & Manavoglu, O. (2002). Cisplatin'e bagli bobrek toksisitesi ve sentetik oral prostaglandin E1 Analogunun Etkinliginin degerlendirilmesi. *Uludag Universitesi Tip Fakultesi Dergisi* 28 (2) 17-20.
The paper was written by Dr. Kurt, and I performed statistical analysis of the study.
2. Ozkan, T., Kiyici, M., Memesa, A., Dolar, E., Ozakin, C., **Unlu (Bayman), E. O.** & Ozeke, T. (2002). Value of stool antigen test in diagnosis of helicobacter pylori infection. *Hepato-Gastroenterology Supplement II* 49 321.
I performed statistical analyses of the study.
3. Demircan, C., Cikrikler, H. I., Engindeniz, Z., Cebicci, H., Atar, N., Guler, V., **Unlu (Bayman), E. O.** & Ozdemir, B. (2005). [Comparison of the effectiveness of intravenous diltiazem and metoprolol in the management of rapid ventricular rate in atrial fibrillation](#). *Emerg Med J* 22 (6) 411-414. DOI: [10.1136/emj.2003.012047](#). PMID: 15911947. PMCID: PMC1726824.
I performed statistical analyses of the study.
4. Ercan, I., Özkaya, G., Alper, Z., Ediz, B., **Bayman, E. Ö.**, Kan, İ. & Bilgel, N. (2006). [Algorithm for increasing patient satisfaction related with non-technical dimension of services in Turkey](#). *Eur J Gen Med* 3 (2) 73-77.
I helped with the statistical analysis of the study and writing the manuscript for a non-Turkish journal.
5. Cakar, E., Dincer, U., Kiralp, M. Z., Taskaynatan, M. A., Yasar, E., **Bayman, E. O.**, Ozgul, A. & Dursun, H. (2007). [Sexual problems in male ankylosing spondylitis patients: relationship with functionality, disease activity, quality of life, and emotional status](#). *Clin Rheumatol* 26 (10) 1607-1613. DOI: [10.1007/s10067-007-0545-x](#). PMID: 17285222.
I performed statistical analyses of the study.
6. McGregor, D. G., Lanier, W. L., Pasternak, J. J., Rusy, D. A., Hogan, K., Samra, S., Hindman, B., Todd, M. M., Schroeder, D. R., **Bayman, E. O.**, Clarke, W., Torner, J. & Weeks, J. (2008). [Effect of nitrous oxide on neurologic and neuropsychological function after intracranial aneurysm surgery](#). *Anesthesiology* 108 (4) 568-579. DOI: [10.1097/ALN.0b013e31816721fa](#). PMID: 18362587.
I performed statistical analyses of the study.
7. **Bayman, E. O.**, Chaloner, K. & Cowles, M. K. (2009). [Detecting qualitative interaction: a Bayesian approach](#). Iowa City, IA: Technical Report.
8. Coghlan, L. A., Hindman, B. J., **Bayman, E. O.**, Banki, N. M., Gelb, A. W., Todd, M. M. & Zaroff, J. G. (2009). [Independent associations between electrocardiographic abnormalities and outcomes in patients with aneurysmal subarachnoid hemorrhage: findings from the intraoperative hypothermia aneurysm surgery trial](#). *Stroke* 40 (2) 412-418. DOI: [10.1161/STROKEAHA.108.528778](#). PMID: 19095990. PMCID: PMC2684783.
I performed statistical analyses of the study.
9. Todd, M. M., Hindman, B. J., Clarke, W. R., Torner, J. C., Weeks, J. B., **Bayman, E. O.**, Shi, Q. & Spofford, C. M. (2009). [Perioperative fever and outcome in surgical patients with aneurysmal subarachnoid hemorrhage](#). *Neurosurgery* 64 (5) 897-908; discussion 908. DOI: [10.1227/01.NEU.0000341903.11527.2F](#). PMID: 19404150.
I performed statistical analyses of the study.
10. Hindman, B. J., **Bayman, E. O.**, Pfisterer, W. K., Torner, J. C. & Todd, M. M. (2010). [No association between intraoperative hypothermia or supplemental protective drug and neurologic outcomes in patients undergoing temporary clipping during cerebral aneurysm surgery: findings from the](#)

[Intraoperative Hypothermia for Aneurysm Surgery Trial](#). *Anesthesiology* 112 (1) 86-101. DOI: [10.1097/ALN.0b013e3181c5e28f](#). PMID: 19952722.

I performed statistical analyses of the study and helped write the Methods and Results sections of the paper.

11. Dexter, F., **Bayman, E. O.** & Epstein, R. H. (2010). Statistical modeling of average and variability of time to extubation for meta-analysis comparing desflurane to sevoflurane. *Anesth Analg* 110 (2) 570-580. DOI: [10.1213/ANE.0b013e3181b5dcb7](#). PMID: 19820242.
This was a heavy statistical methodological paper. I was responsible for the study's Bayesian analysis of the study and writing the paper's Bayesian sections. [This paper received an editorial.]
12. **Bayman, E. O.**, Chaloner, K. & Cowles, M. K. (2010). [Detecting qualitative interaction: a Bayesian approach](#). *Stat Med* 29 (4) 455-463. DOI: [10.1002/sim.3787](#). PMID: 19950107.
Dr. Chaloner and Dr. Cowles are my dissertation advisors. This publication was related to my PhD dissertation. Dr. Chaloner and I wrote the first draft of the paper.
13. Agoliati, A., Dexter, F., Lok, J., Masursky, D., Sarwar, M. F., Stuart, S. B., **Bayman, E. O.** & Epstein, R. H. (2010). [Meta-analysis of average and variability of time to extubation comparing isoflurane with desflurane or isoflurane with sevoflurane](#). *Anesth Analg* 110 (5) 1433-1439. DOI: [10.1213/ANE.0b013e3181d58052](#). PMID: 20418303.
This study was an extension of a 2009 Dexter, Bayman, Epstein paper. I performed a Bayesian analysis for this study, wrote the first draft of the Methods section, and contributed to the Results section.
14. Nguyen, H. P., Zaroff, J. G., **Bayman, E. O.**, Gelb, A. W., Todd, M. M. & Hindman, B. J. (2010). [Perioperative hypothermia \(33 degrees C\) does not increase the occurrence of cardiovascular events in patients undergoing cerebral aneurysm surgery: findings from the Intraoperative Hypothermia for Aneurysm Surgery Trial](#). *Anesthesiology* 113 (2) 327-342. DOI: [10.1097/ALN.0b013e3181dfd4f7](#). PMID: 20571361. PMCID: PMC2910193.
I performed statistical analysis of the study and helped write the Methods and Results sections of the paper.
15. Hata, J. S., Stotts, C., Shelsky, C., **Bayman, E. O.**, Frazier, A., Wang, J. & Nickel, E. J. (2011). [Reduced mortality with noninvasive hemodynamic monitoring of shock](#). *J Crit Care* 26 (2) 224.e1-8. DOI: [10.1016/j.jcrc.2010.07.001](#). PMID: 20813490.
I performed statistical analysis of the study and helped write the Methods and Results sections of the paper.
16. Oral, R., Bayman, L., Assad, A., Wibbenmeyer, L., Buhrow, J., Austin, A. & **Bayman, E. O.** (2011). [Illicit drug exposure in patients evaluated for alleged child abuse and neglect](#). *Pediatr Emerg Care* 27 (6) 490-495. DOI: [10.1097/PEC.0b013e31821d860f](#). PMID: 21629147.
I helped design the study and wrote the Methods and Results sections of the manuscript.
17. **Bayman, E. O.**, Dexter, F., Laur, J. J. & Wachtel, R. E. (2011). [National incidence of use of monitored anesthesia care](#). *Anesth Analg* 113 (1) 165-169. DOI: [10.1213/ANE.0b013e31821c3e8e](#). PMID: 21596866.
I was responsible for the study's statistical analysis with the SUDAAN package. We also developed simulations and created a lengthy Appendix to serve as a reference for similar future studies. I was responsible for all the SUDAAN related parts of the study.
18. Spofford, C. M., **Bayman, E. O.**, Szeluga, D. J. & From, R. P. (2012). Anesthesia machine checkout and room setup: a randomized, single-blind, comparison of two teaching modalities. *J Educ Perioper Med* 14 (1) E060. PMID: 27175391. PMCID: PMC4719546.
I helped design the study, performed power and sample size calculations, and provided a randomization list. I also performed statistical analysis and helped write the Methods and Results sections of the paper.

19. Laur, J. J., **Bayman, E. O.**, Foldes, P. J. & Rosenquist, R. W. (2012). [Triple-blind randomized clinical trial of time until sensory change using 1.5% mepivacaine with epinephrine, 0.5% bupivacaine, or an equal mixture of both for infraclavicular block.](#) *Reg Anesth Pain Med* 37 (1) 28-33. DOI: [10.1097/AAP.0b013e318236bc30](#). PMID: [22157740](#).
I helped design the study, created the randomization list, performed interim analysis, and helped interpret results. I also helped to write the Methods and Results sections.
20. Kumar, A. B., Suneja, M., **Bayman, E. O.**, Weide, G. D. & Tarasi, M. (2012). [Association between postoperative acute kidney injury and duration of cardiopulmonary bypass: a meta-analysis.](#) *J Cardiothorac Vasc Anesth* 26 (1) 64-69. DOI: [10.1053/j.jvca.2011.07.007](#). PMID: [21924633](#).
This was my very first meta-analysis. I guided Dr. Kumar on how to perform the search and collect the data. I helped with the study's design, performed meta-analysis, and wrote the Methods and Results sections of the manuscript.
21. Mahaney, K. B., Todd, M. M., **Bayman, E. O.** & Torner, J. C. (2012). [Acute postoperative neurological deterioration associated with surgery for ruptured intracranial aneurysm: incidence, predictors, and outcomes.](#) *J Neurosurg* 116 (6) 1267-1278. DOI: [10.3171/2012.1.JNS111277](#). PMID: [22404668](#).
I performed statistical analysis of the study and helped write the Methods and Results sections of the paper.
22. Block, R. I., Thomas, J. J., **Bayman, E. O.**, Choi, J. Y., Kimble, K. K. & Todd, M. M. (2012). [Are anesthesia and surgery during infancy associated with altered academic performance during childhood?](#) *Anesthesiology* 117 (3) 494-503. DOI: [10.1097/ALN.0b013e3182644684](#). PMID: [22801049](#). ISSN: 0003-3022; I was very involved with this large study from the beginning. I helped with the study design, performed part of the statistical analysis, and interpreted the study results. I also helped write the Methods and Results sections of the paper. [This paper received an editorial.]
23. Oral, R., Koc, F., **Bayman, E. O.**, Assad, A., Austin, A., Strang, T. & Bayman, L. (2012). [Perinatal illicit drug screening practices in mother-newborn dyads at a university hospital serving rural/semi-urban communities: translation of research to quality improvement.](#) *J Matern Fetal Neonatal Med* 25 (11) 2441-2446. DOI: [10.3109/14767058.2012.703714](#). PMID: [22716202](#).
I helped design the study and write the Methods section of the manuscript.
24. Kumar, A. B., Hata, J. S., **Bayman, E. O.** & Krishnan, S. (2013). [Implementing a hybrid web-based curriculum for an elective medical student clerkship in a busy surgical intensive care unit \(ICU\): effect on test and satisfaction scores.](#) *J Surg Educ* 70 (1) 109-116. DOI: [10.1016/j.jsurg.2012.06.026](#). PMID: [23337679](#).
I helped design the study and write the Methods section of the manuscript.
25. **Bayman, E. O.**, Chaloner, K. M., Hindman, B. J. & Todd, M. M. (2013). [Bayesian methods to determine performance differences and to quantify variability among centers in multi-center trials: the IHAST trial.](#) *BMC Med Res Methodol* 13 5. DOI: [10.1186/1471-2288-13-5](#). PMID: [23324207](#). PMCID: [PMC3599203](#).
This is a Bayesian methodological paper with applications to data from the IHAST trial. I developed the statistical methodology with Dr. Chaloner.
26. Ueda, K., Puangsuwan, S., Hove, M. A. & **Bayman, E. O.** (2013). [Ultrasound visual image-guided vs Doppler auditory-assisted radial artery cannulation in infants and small children by non-expert anaesthesiologists: a randomized prospective study.](#) *Br J Anaesth* 110 (2) 281-286. DOI: [10.1093/bja/aes383](#). PMID: [23151422](#).
I was very involved with this large study from the beginning. I helped design the study, performed power and sample size calculations, provided the randomization list, and performed interim analysis. I also served as a statistical mentor to Dr. Ueda on this project. He performed statistical analysis under my guidance, and I helped interpret the study results. I also helped write the Methods and Results sections of the paper.

27. Dexter, F., Epstein, R. H., **Bayman, E. O.** & Ledolter, J. (2013). [Estimating surgical case durations and making comparisons among facilities: identifying facilities with lower anesthesia professional fees.](#) *Anesth Analg* 116 (5) 1103-1115. DOI: 10.1213/ANE.0b013e31828b3813. PMID: 23558844.
One of the examples in this paper was the IHASt trial, and I was responsible for IHASt-related data analysis.
28. Oral, R., Koc, F., Jogerst, K., Bayman, L., Austin, A., Sullivan, S. & **Bayman, E. O.** (2014). [Staff training makes a difference: improvements in neonatal illicit drug testing and intervention at a tertiary hospital.](#) *J Matern Fetal Neonatal Med* 27 (10) 1049-1054. DOI: 10.3109/14767058.2013.847418. PMID: 24060204.
I helped with the design of the study and helped write the Methods section of the manuscript.
29. **Bayman, E. O.** & Brennan, T. J. (2014). [Incidence and severity of chronic pain at 3 and 6 months after thoracotomy: meta-analysis.](#) *J Pain* 15 (9) 887-897. DOI: 10.1016/j.jpain.2014.06.005. PMID: 24968967.
Dr. Brennan and I performed searches for the meta-analysis. I performed statistical analyses and wrote the first draft of the paper.
30. Eisen, S. H., Hindman, B. J., **Bayman, E. O.**, Dexter, F. & Hasan, D. M. (2015). [Elective endovascular treatment of unruptured intracranial aneurysms: a management case series of patient outcomes after institutional change to admit patients principally to postanesthesia care unit rather than to intensive care.](#) *Anesth Analg* 121 (1) 188-197. DOI: 10.1213/ANE.0000000000000699. PMID: 25806401.
I helped write the Methods section of the manuscript.
31. **Bayman, E. O.**, Dexter, F. & Todd, M. M. (2015). [Assessing and comparing anesthesiologists' performance on mandated metrics using a Bayesian approach.](#) *Anesthesiology* 123 (1) 101-115. DOI: 10.1097/ALN.0000000000000667. PMID: 25906338.
I developed the Bayesian model. Dr. Dexter and I collaborated on the statistical analysis plan and wrote the paper's first draft.
32. Ueda, K., **Bayman, E. O.**, Johnson, C., Odum, N. J. & Lee, J. J. (2015). [A randomised controlled trial of radial artery cannulation guided by Doppler vs. palpation vs. ultrasound.](#) *Anaesthesia* 70 (9) 1039-1044. DOI: 10.1111/anae.13062. PMID: 25857597.
I helped design the study, performed power and sample size calculations, provided the randomization list, and performed interim analysis. I also served as a statistical mentor to Dr. Ueda on this project. He performed statistical analysis under my guidance and I helped interpret the study results. I also helped write the Statistical Methods and Results sections of the paper.
33. Marian, A. A., Ranganath, Y. S., **Bayman, E. O.**, Senasu, J. & Brennan, T. J. (2015). [A comparison of 2 ultrasound-guided approaches to the saphenous nerve block: adductor canal versus distal transartorial: a prospective, randomized, blinded, noninferiority trial.](#) *Reg Anesth Pain Med* 40 (5) 623-630. DOI: 10.1097/AAP.0000000000000277. PMID: 26110441.
Non-inferiority trials are more complicated to explain to non-statistical readers compared to superiority trials. I helped design the study, performed power and sample size calculations, and provided the randomization list for this non-inferiority trial. I also served as a statistical mentor to Dr. Anil Marian on this project. He performed statistical analysis under my guidance, and I helped interpret the study results. I provided him with the statistical analysis results for the non-inferiority testing. I also helped write the Statistical Methods and Results sections of the paper. Our manuscript was accepted for publication after only one revision.
34. **Bayman, E. O.**, Dexter, F. & Todd, M. M. (2016). [Prolonged operative "time to extubation" is not an appropriate metric for comparing the performance of individual anesthesia providers.](#) *Anesthesiology* 124 (2) 322-338. DOI: 10.1097/ALN.0000000000000920. PMID: 26545101.
I developed the Bayesian model. Dr. Dexter and I collaborated on the statistical analysis plan and wrote the paper's first draft. [This paper received an editorial.]
35. Aziz, M. F., Abrons, R. O., Cattano, D., **Bayman, E. O.**, Swanson, D. E., Hagberg, C. A., Todd, M. M. & Brambrink, A. M. (2016). [First-attempt intubation success of video laryngoscopy in patients with](#)

[predicted difficult airway: a multicenter randomized controlled trial comparing the “C-MAC D-Blade” versus the “GlideScope” in a mixed provider and diverse patient population.](#) *Anesth Analg* 122 (3) 740-750. DOI: 10.1213/ANE.0000000000001084. PMID: 26579847.

I provided the statistical design and analysis for this prospective, randomized, interventional non-inferiority trial. I performed interim and final analyses. In addition, I wrote the Statistical Analysis Plan during the design stage of the study and the Statistical Methods section of the manuscript at the time of submission for the publication. [This paper received an editorial.]

36. Marian, A. A., **Bayman, E. O.**, Gillett, A., Hadder, B. & Todd, M. M. (2016). [The influence of the type and design of the anesthesia record on ASA physical status scores in surgical patients: paper records vs. electronic anesthesia records.](#) *BMC Med Inform Decis Mak* 16 29. DOI: 10.1186/s12911-016-0267-6. PMID: 26936616. PMCID: PMC4776367.

I mentored Dr. Marian for the basic statistical analysis of the study, conducted bootstrap analysis, and helped write the Statistical Methods section of the manuscript.

37. Aziz, M. F., **Bayman, E. O.**, Van Tienderen, M. M., Todd, M. M. & Brambrink, A. M. (2016). [Predictors of difficult videolaryngoscopy with GlideScope® or C-MAC® with D-blade: secondary analysis from a large comparative videolaryngoscopy trial.](#) *Br J Anaesth* 117 (1) 118-123. DOI: 10.1093/bja/aew128. PMID: 27317711. PMCID: PMC4913400.

I provided the statistical design and analysis for this prospective, randomized, interventional, non-inferiority trial. I wrote the statistical analysis plan and performed the planned secondary statistical analysis for this second manuscript related to the StAGE trial.

38. **Bayman, E. O.**, Dexter, F. & Ledolter, J. (2017). [Mixed effects logistic regression modeling of daily evaluations of nurse anesthetists’ work habits adjusting for leniency of the rating anesthesiologists.](#) *Perioper Care Oper Room Manag* 6 14-19. DOI: 10.1016/j.pcorm.2017.02.001.

I performed Bayesian analysis related to different statistical methods to examine the evaluation scores for this study.

39. **Bayman, E. O.**, Lennertz, R. & Brennan, T. J. (2017). [Pain-related limitations in daily activities following thoracic surgery in a United States population.](#) *Pain Physician* 20 (3) E367-E378. PMID: 28339436.

Dr. Brennan and I designed the study. I performed the Rasch data analyses, created tables and plots, and wrote the first draft of the manuscript.

40. **Bayman, E. O.**, Parekh, K. R., Keech, J., Selte, A. & Brennan, T. J. (2017). [A prospective study of chronic pain after thoracic surgery.](#) *Anesthesiology* 126 (5) 938-951. DOI: 10.1097/ALN.0000000000001576. PMID: 28248713. PMCID: PMC5395336.

Dr. Brennan and I designed and conducted this prospective observational study. I performed data analyses, created tables and plots, and wrote the first draft of the manuscript.

41. Block, R. I., Magnotta, V. A., **Bayman, E. O.**, Choi, J. Y., Thomas, J. J. & Kimble, K. K. (2017). [Are anesthesia and surgery during infancy associated with decreased white matter integrity and volume during childhood?](#) *Anesthesiology* 127 (5) 788-799. DOI: 10.1097/ALN.0000000000001808. PMID: 28837436.

I was heavily involved with the design and conducted the statistical analyses for this study.

42. Dexter, F., **Bayman, E. O.** & Dexter, E. U. (2017). Monte Carlo simulations comparing Fisher Exact Test and unequal variances t test for analysis of differences between groups in brief hospital lengths of stay. *Anesth Analg* 125 (6) 2141-2145. DOI: 10.1213/ANE.0000000000002428. PMID: 28961563.

I conducted the Monte Carlo simulations for this study.

43. Dexter, F., **Bayman, E. O.**, Pattillo S., J., Schwenk, E. S. & Epstein, R. H. (2018). [Influence of parameter uncertainty on the tardiness of the start of a surgical case following a preceding surgical case performed by a different surgeon.](#) *Perioper Care Oper Room Manag* 13 12-17. DOI: 10.1016/j.pcorm.2018.11.001.

I conducted the Bayesian analyses for this study.

44. **Bayman, E. O.**, Parekh, K. R., Keech, J., Larson, N., Vander Weg, M. & Brennan, T. J. (2019). [Preoperative patient expectations of postoperative pain are associated with moderate to severe acute pain after VATS](#). *Pain Med* 20 (3) 543-554. DOI: [10.1093/pm/pny096](#). PMID: [29878248](#).
We conducted the secondary analysis for the prospective observational study that Dr. Brennan and I designed and conducted. I wrote the first draft of the manuscript and conducted the statistical analyses.
45. Seering, M. S., **Bayman, E. O.**, Wong, C. A., Ranganath, Y. S. & Marian, A. A. (2019). [Comparison of the effect of three different adjuvants on the analgesic duration of single injection interscalene brachial plexus block: a prospective, randomized, triple blinded clinical trial](#). *Reg Anesth Pain Med* 44 (9) 866-871. DOI: [10.1136/rapm-2018-100201](#). PMID: [31308262](#).
I helped with the study design, sample size calculations, randomization, and statistical analyses for the interventional study.
46. Dexter, F., **Bayman, E. O.**, Wong, C. A. & Hindman, B. J. (2020). [Reliability of ranking anesthesiologists and nurse anesthetists using leniency-adjusted clinical supervision and work habits scores](#). *J Clin Anesth* 61 109639. DOI: [10.1016/j.jclinane.2019.109639](#). PMID: [31735571](#).
I provided the statistical analyses for this study.
47. Cudkowicz, M., Chase, M. K., Coffey, C. S., Ecklund, D. J., Thornell, B. J., Lungu, C., Mahoney, K., Gutmann, L., Shefner, J. M., Staley, K. J., Bosch, M., Foster, E., Long, J. D., **Bayman, E. O.**, Torner, J., Yankey, J., Peters, R., Huff, T., Conwit, R. A., Shinnar, S., Patch, D., Darras, B. T., Ellis, A., Packer, R. J., Marder, K. S., Chiriboga, C. A., Henschcliffe, C., Moran, J. A., Nikolov, B., Factor, S. A., Seeley, C., Greenberg, S. M., Amato, A. A., DeGregorio, S., Simuni, T., Ward, T., Kissel, J. T., Kolb, S. J., Bartlett, A., Quinn, J. F., Keith, K., Levine, S. R., Gilles, N., Coyle, P. K., Lamb, J., Wolfe, G. I., Crumlish, A., Mejico, L., Iqbal, M. M., Bowen, J. D., Tongco, C., Nabors, L. B., Bashir, K., Benghe, M., McDonald, C. M., Henricson, E. K., Oskarsson, B., Dobkin, B. H., Canamar, C., Glauser, T. A., Woo, D., Molloy, A., Clark, P., Vollmer, T. L., Stein, A. J., Barohn, R. J., Dimachkie, M. M., Le Pichon, J. B., Benatar, M. G., Steele, J., Wechsler, L., Clemens, P. R., Amity, C., Holloway, R. G., Annis, C., Goldberg, M. P., Andersen, M., Iannaccone, S. T., Smith, A. G., Singleton, J. R., Doudova, M., Haley, E. C., Quigg, M. S., Lowenhaupt, S., Malow, B. A., Adkins, K., Clifford, D. B., Teshome, M. A. & Connolly, N. (2020). [Seven-year experience from the National Institute of Neurological Disorders and Stroke-supported network for excellence in neuroscience clinical trials](#). *JAMA Neurol* 77 (6) 755-763. DOI: [10.1001/jamaneurol.2020.0367](#). PMID: [32202612](#).
This paper presented the first seven years of the NeuroNEXT Consortium, where I have been serving as the Data Coordination Center lead.
48. Bishop, M. O., **Bayman, E. O.**, Hadlandsmyth, K., Lund, B. C. & Kang, S. (2020). [Opioid use trajectories after thoracic surgery among veterans in the United States](#). *Eur J Pain* 24 (8) 1569-1584. DOI: [10.1002/ejp.1610](#). PMID: [32506529](#).
Michael Bishop was the Biostatistics graduate student and my research assistant. Using latent class analyses, we identified opioid use trajectories among thoracic surgery patients.
49. Hadlandsmyth, K., Mosher, H. J., **Bayman, E. O.**, Wikle, J. G. & Lund, B. C. (2020). [A typology of new long-term opioid prescribing in the Veterans Health Administration](#). *J Gen Intern Med* 35 (9) 2607-2613. DOI: [10.1007/s11606-020-05749-7](#). PMID: [32206994](#).
We investigated a model of long-term opioid use prescription practices using the latent class analyses. I provided statistical analyses for this study.
50. Polgreen, L. A., Carter, B. L., Polgreen, P. M., Snyder, P. M., Sewell, D. K., **Bayman, E. O.**, Francis, S. L., Simmering, J. E., Parker, C. & Finkelstein, R. (2020). [A pharmacist intervention for monitoring and treating hypertension using bidirectional texting: PharmText BP](#). *Contemp Clin Trials* 98 106169. DOI: [10.1016/j.cct.2020.106169](#). PMID: [33038500](#).
This was the protocol paper for the ongoing interventional study that I am contributing to as the clinical trial expert.

51. Post, A. A., Rio, E. K., Sluka, K. A., Moseley, G. L., **Bayman, E. O.**, Hall, M. M., de Cesar Netto, C., Wilken, J. M., Danielson, J. F. & Chimenti, R. L. (2020). [Effect of pain education and exercise on pain and function in chronic achilles tendinopathy: a protocol for a double-blind, placebo-controlled randomized trial](#). *JMIR Res Protoc* 9 (11) e19111. DOI: [10.2196/19111](#). PMID: [33141102](#). PMCID: [7678911](#).
This was the protocol paper for the Chimenti et al. study. I helped with the study design and the statistical analysis. I wrote the first draft of the Statistical Methods Section of the manuscript.
52. **Bayman, E. O.**, Oleson, J. J. & Rabbitts, J. A. (2021). [AAAPT: Assessment of the Acute Pain Trajectory](#). *Pain Med* 22 (3) 533-547. DOI: [10.1093/pm/pnaa440](#). PMID: [33735384](#).
I was approached the the AAAPT group to write this acute pain trajectories paper. I approached to Drs. Oleson and Rabbitts for their collaboration and wrote the first draft of the paper.
53. **Bayman, E. O.**, Curatolo, M., Rahman, S. & Brennan, T. J. (2021). [AAAPT diagnostic criteria for acute thoracic surgery pain](#). *J Pain* 22 (8) 892-904. DOI: [10.1016/j.jpain.2021.03.148](#). PMID: [33848682](#).
Because of our series of papers for acute and chronic pain after thoracic surgery, Dr. Brennan and I were approached by the AAAPT group to write this diagnostic criteria paper for acute pain after thoracic surgery.
54. Lin, S. H., Galet, C., Zanaty, M., **Bayman, E. O.**, Rogers, W. K., Hasan, D. & Allen, L. D. (2021). [Melatonin and risk of mortality in subjects with aneurysmal subarachnoid hemorrhage](#). *Clin Neurol Neurosurg* 210 106990. DOI: [10.1016/j.clineuro.2021.106990](#). PMID: [34739880](#).
I provided statistical consultation for this study.
55. Lai, H. H., **Bayman, E. O.**, Bishop, M. O., Landis, J. R., Harte, S. E., Clemens, J. Q., Rodriguez, L. V., Sutcliffe, S., Taple, B. J. & Naliboff, B. D. (2022). [Longitudinal changes in the pelvic pain only and widespread pain phenotypes over one year in the MAPP-I urologic chronic pelvic pain syndrome \(UCPPS\) cohort](#). *Urology* 161 31-35. DOI: [10.1016/j.urology.2021.12.016](#). PMID: [35021046](#).
Represented the MAPP Research Network.
56. Berardi, G., Frey-Law, L., Sluka, K. A., **Bayman, E. O.**, Coffey, C. S., Ecklund, D., Vance, C. G., Dailey, D. L., Burns, J., Buvanendran, A., McCarthy, R. J., Jacobs, J., Zhou, X. J., Wixson, R., Balach, T., Brummett, C. M., Clauw, D., Colquhoun, D., Harte, S. E., Harris, R. E., Williams, D. A., Chang, A. C., Waljee, J., Fisch, K. M., Jepsen, K., Laurent, L. C., Olivier, M., Langefeld, C. D., Howard, T. D., Fiehn, O., Jacobs, J. M., Dakup, P., Qian, W., Swensen, A. C., Lokshin, A., Lindquist, M., Caffo, B. S., Crainiceanu, C., Zeger, S., Kahn, A., Wager, T., Taub, M., Ford, J., Sutherland, S. P. & Wandner, L. D. (2022). [Multi-site observational study to assess biomarkers for susceptibility or resilience to chronic pain: the Acute to Chronic Pain Signatures \(A2CPS\) study protocol](#). *Front Med* 9 849214. DOI: [10.3389/fmed.2022.849214](#). PMID: [35547202](#). PMCID: [PMC9082267](#).
This is the protocol paper for the A2CPS study. I provided several revisions to the manuscript.
57. Hadlandsmyth, K. E., Mosher, H. J., **Bayman, E. O.**, Mares, J. G., Odom, A. S. & Lund, B. C. (2022). [Opioid prescribing patterns for acute pain](#). *Eur J Pain* 26 (7) 1523-1531. DOI: [10.1002/ejp.1980](#). PMID: [35607721](#).
I conducted the statistical analyses of the study and wrote the Statistical Methods section.
58. Post, A. A., Dailey, D. L., **Bayman, E. O.**, Chimenti, R. L., Costigan, M., Franck, C., Huff, T., Johnson, E., Koepp, M., Lafontant, D. E., McCabe, M. E., Neill-Hudson, T., Vance, C. G., Van Gorp, B., Zimmerman, B. M., Ecklund, D., Crofford, L. J. & Sluka, K. A. (2022). [The Fibromyalgia Transcutaneous Electrical Nerve Stimulation in Physical Therapy Study \(FM-TIPS\) Protocol: a multisite embedded pragmatic trial](#). *Phys Ther* 102 (11) pzac116. DOI: [10.1093/ptj/pzac116](#). PMID: [36036838](#).
This is the protocol paper for the FM-TIPS study. I am heavily involved with the design, conduct, and analysis of this study and the protocol paper.
59. Chimenti, R. L., Post, A. A., Rio, E. K., Moseley, G. L., Dao, M., Mosby, H., Hall, M., de Cesar Netto, C., Wilken, J. M., Danielson, J., **Bayman, E. O.** & Sluka, K. A. (2023). [The effects of pain science education plus exercise on pain and function in chronic Achilles tendinopathy: a blinded, placebo-controlled](#).

[explanatory, randomized trial](#). *Pain* 164 (1) e47-365. DOI: [10.1097/j.pain.0000000000002720](#). PMID: [36095045](#).

I helped with the study design, conducted statistical analyses, and wrote the Statistical Methods section.

60. Post, A. A., Rio, E. K., Sluka, K. A., Moseley, G. L., **Bayman, E. O.**, Hall, M. M., de Cesar Netto, C., Wilken, J. M., Danielson, J. F. & Chimenti, R. L. (2023). [Efficacy of telehealth for movement-evoked pain in people with chronic Achilles tendinopathy: a noninferiority analysis](#). *Phys Ther Rehabil J* 103 (3) *pzac171*. DOI: [10.1093/ptj/pzac171](#).

This was the secondary analysis of the Chimenti et al. study that I helped to design. I helped with the statistical analyses and wrote the Statistical Methods section.

61. Sluka, K. A., Wager, T. D., Sutherland, S. P., Labosky, P. A., Balach, T., **Bayman, E. O.**, Berardi, G., Brummett, C. M., Burns, J., Buvanendran, A., Caffo, B., Calhoun, V. D., Clauw, D., Chang, A., Coffey, C. S., Dailey, D. L., Ecklund, D., Fiehn, O., Fisch, K. M., Frey Law, L. A., Harris, R. E., Harte, S. E., Howard, T. D., Jacobs, J., Jacobs, J. M., Jepsen, K., Johnston, N., Langefeld, C. D., Laurent, L. C., Lenzi, R., Lindquist, M. A., Lokshin, A., Kahn, A., McCarthy, R. J., Olivier, M., Porter, L., Qian, W., Sankar, C. A., Satterlee, J., Swensen, A. C., Vance, C. G., Waljee, J., Wandner, L. D., Williams, D. A., Wixson, R. L. & Zhou, Z. J. (2023). [Predicting chronic postsurgical pain: current evidence and a novel program to develop predictive biomarker signatures](#). *Pain* 164 (9) 1912-1926. DOI: [10.1097/j.pain.0000000000002938](#). PMID: [37326643](#).

Written in collaboration with the A2CPS Consortium.

62. Janowski, A. J., Post, A. A., Heredia-Rizo, A. M., Mosby, H., Dao, M., Frey Law, L. A., **Bayman, E. O.**, Wilken, J. M., Sluka, K. A. & Chimenti, R. L. (2023). [Patterns of movement-evoked pain during tendon loading and stretching tasks in Achilles tendinopathy: a secondary analysis of a randomized controlled trial](#). *Clin Biomech* 109 106073. DOI: [10.1016/j.clinbiomech.2023.106073](#). PMID: [37657267](#).

I am a dissertation committee member for Adam Janowski. This paper is related to Adam's dissertation.

63. Gallagher, J., **Bayman, E. O.**, Cadmus-Bertram, L. A., Jenkins, N. D., Pearlman, A., Whitaker, K. M. & Carr, J. J. (2023). Physical activity among rural men: Barriers and preferences. *Preventing Chronic Disease* 20 E88. DOI: [10.5888/pcd20.230046](#). PMID: [37797290](#). PMCID: [PMC10557978](#).

I am a dissertation committee member for Jacob Gallagher. This paper is related to Jacob's dissertation.

64. Zhang, L., **Bayman, E. O.** & Zamba, G. K. (2024). [A modified Huber loss function for continual reassessment methods in clinical trials](#). *Seq Anal* 43 (1) 28-48. DOI: [10.1080/07474946.2023.2276154](#).

Dr. Zamba and I are Ling's dissertation advisors. This paper is from the first half of Ling's dissertation.

65. Dexter, F., Hindman, B. J., **Bayman, E. O.** & Mueller, R. N. (2024). [Patient and operational factors do not substantively affect the annual departmental quality of anesthesiologists' clinical supervision and nurse anesthetists' work habits](#). *Cureus* 16 (3) e55346. DOI: [10.7759/cureus.55346](#). PMID: [38559506](#). PMCID: [PMC10981928](#).

66. **Bayman, E. O.**, Oleson, J. J. & Dexter, F. (2024). [Introduction to Bayesian analyses for clinical research](#). *Anesth Analg* 138 (3) 530-541. DOI: [10.1213/ANE.0000000000006696](#). PMID: [37874772](#).

I wrote the first draft of this Statistical Grand Rounds paper.

67. Fleagle, T. R., Post, A. A., Dailey, D. L., Vance, C. G., Zimmerman, M. B., **Bayman, E. O.**, Crofford, L. J., Sluka, K. A. & Chimenti, R. L. (2024). [Minimal clinically important change of movement pain in musculoskeletal pain conditions](#). *J Pain* 25 (8) 104507. DOI: [10.1016/j.jpain.2024.03.003](#). PMID: [38479557](#).

68. Gallagher, J., **Bayman, E. O.**, Cadmus-Bertram, L. A., Jenkins, N. D. M., Pearlman, A., Whitaker, K. M. & Carr, L. J. (2025). [Formative study to inform a physical activity intervention targeted to rural men in the United States](#). *Health Sci Rep* 8 (2) e70485. DOI: [10.1002/hsr2.70485](#). PMID: [39980827](#). PMCID: [PMC11840238](#).

69. Gallagher, J., **Bayman, E. O.**, Camus-Bertram, L. A., Jenkins, N. D. M., Pearlman, A., Whitaker, K. M. & Carr, L. J. (2025). [A remote physical activity intervention tailored to rural men: a proof-of-concept study](#). *Transl J ACSM* 10 (2) e000288. DOI: [10.1249/TJX.000000000000288](#).
70. Vance, K. G., Pedelty, J., Van Gorp, B. J., Vance, C. G. T., Johnson, E. M., Jiang, F., Lafontant, D. E., Koeppe, M., Post, A. A., **Bayman, E. O.**, Chimenti, R. L., Dailey, D. L., Crofford, L. J., Schacht Reisinger, H. & Sluka, K. A. (2025). [Community engagement strategies improve recruitment and enrollment in a pragmatic clinical trial](#). *J Clin Transl Sci* 9 (1) e184. DOI: [10.1017/cts.2025.10103](#).
71. McCabe, M. E., Viele, K., Coffey, C. S. & **Bayman, E. O.** (2025). [An overview of statistical and operational considerations related to the shared control in platform trials](#). *J Stat Theory Pract* 19 86. DOI: [10.1007/s42519-025-00500-z](#).
72. Janowski, A. J., Post, A. A., Heredia-Rizo, A. M., Frey Law, L. A., **Bayman, E. O.**, Sluka, K. A. & Chimenti, R. L. (2026). [Exploring biomarkers of change in movement-evoked pain in Achilles tendinopathy: a secondary analysis of a randomized controlled trial](#). *Clin Biomech* 31 106706. DOI: [10.1016/j.clinbiomech.2025.106706](#). PMID: 41207117. PMCID: PMC12626106 (available on 2026-11-07).
73. Combs, A. B., Wagner, J. L., Huszti, H., Wade, S. L., Schmidt, M., Buschhaus, S., Scherra, J., Wetter-Wren, S. E., Ogundairo, D., Coffey, C., Ecklund, D., **Bayman, E. O.**, Bhatia, S., Glauser, T, Hardy, K. K. & Modi, A. C. (2026). [Epilepsy journey 2.0 study design and methods: a randomized trial of an executive functioning intervention for adolescents with epilepsy](#). *Contemp Clin Trials Comm* 49 101605. DOI: [10.1016/j.conctc.2026.101605](#).

Books

1. **Bayman, E. O.** (2021). [Middle Development Trials](#). In Meinert, C. L. & Piantadosi, S. (Eds.) Principles and Practice of Clinical Trials. New York, NY: Springer. DOI: [10.1007/978-3-319-52677-5](#).

Abstracts

1. Lai, H. H., **Bayman, E. O.**, Landis, J. R., Harte, S., Clemens, J. Q., Rodriguez, L., Sutcliffe, S., Taple, B. & Naliboff, B. (2020). Longitudinal changes in the "pelvic pain only" and "widespread pain" phenotypes in the MAPP Urologic Chronic Pelvic Pain Syndrome (UCCPPS) cohort. *J Urol* 203 (4S) Supplement.
2. Berardi, G., Vance, C. G., Dailey, D. L., Ecklund, D., Coffey, C. S., **Bayman, E. O.** & Sluka, K. A. (2022). [297 The Acute to Chronic Pain Signatures program \(A2CPS\): Conceptual design and protocol implementation of a multi-site observational study assessing risk and resilience biomarkers](#). *J Clin Transl Sci* 6 (s1) 51. DOI: [10.1017/cts.2022.162](#).
3. Van Gorp, B., Vance, C. G., Dailey, D. L., Chimenti, R. L., Post, A., **Bayman, E. O.**, Costigan, M., Neill-Hudson, T., Ecklund, D., Johnson, E. M., Archer-Swygert, K. R., Crofford, L. J. & Sluka, K. A. (2022). [126 Facilitators and barriers to implementation of a transcutaneous electrical nerve stimulation intervention in a pragmatic clinical trial](#). *J Pain* 23 (5 Suppl) 33. DOI: [10.1016/j.jpain.2022.03.128](#).
4. Dailey, D. L., Vance, C. G., Chimenti, R. L., Franck, C., Post, A., Johnson, E., Costigan, M., Koeppe, M., Huff, T., Van Gorp, B., Ecklund, D., **Bayman, E. O.**, Archer, K. R., Zimmerman, B., Crofford, L. J. & Sluka, K. A. (2022). [127 Physical therapist training challenges for an embedded pragmatic trial: fibromyalgia TENS in physical therapy study](#). *J Pain* 23 (5 Suppl) 33-34. DOI: [10.1016/j.jpain.2022.03.129](#).
5. Berardi, G., Frey-Law, L., Vance, C. G., **Bayman, E. O.**, Coffey, C. S., Dailey, D. L., Ecklund, D., Sluka, K. A., Balach, T., Burns, J., Buvanendran, A., Jacobs, J., McCarthy, R. J., Wixson, R., Zhou, X. J., Brummett, C. M., Chang, A., Clauw, D., Colquhoun, D., Harris, R. E., Harte, S., Waljee, J., Williams, D. A., Dakup, P., Fiehn, O., Fisch, K. M., Howard, T. D., Jacobs, J. M., Jepsen, K., Langefeld, C. D., Laurent, L. C., Lokshin, A., Olivier, M., Qian, W., Swensen, A. C., Caffo, B., Crainiceanu, C., Ford, J., Kahn, A., Lindquist, M., Sutherland, S. P., Taub, M., Wager, T., Johnston, N. & Wandner, L. D. (2022). [19 Acute to Chronic Pain Signatures Program \(a2CPS\): Implementation of remote training for a multisite observation study during COVID-19](#). *J Pain* 23 (5 Suppl) 5-6. DOI: [10.1016/j.jpain.2022.03.021](#).

6. **Bayman, E. O.**, Dailey, D. L., Ecklund, D., Johnson, E., Vance, C. G., Van Gorp, B., Lafontant, D., McCabe, M., Zimmerman, B., Koepp, M., Costigan, M., Chimenti, R. L., Spencer, M., Post, A., Huff, T., Archer, K. R., Neill-Hudson, T., Peters, R., Nye, G., Franck, C., Crofford, L. J. & Sluka, K. A. (2022). [123 Impact of COVID-19 on the patient enrollment for a pragmatic, cluster randomized clinical trial for fibromyalgia.](#) *J Pain* 23 (5 Suppl) 32. DOI: [10.1016/j.jpain.2022.03.125](#).
7. Post, A. A., Lafontant, D., McCabe, M. E., **Bayman, E. O.**, Dailey, D. L., Chimenti, R. L., Costigan, M., Franck, C., Huff, T., Johnson, E., Koepp, M., Neill-Hudson, T., Vance, C. G., Van Gorp, B., Zimmerman, B. M., Ecklund, D., Crofford, L. J. & Sluka, K. A. (2023). [Movement-evoked and resting pain are each associated with disease impact in individuals with fibromyalgia.](#) *J Pain* 24 (4, Supplement) 81-82. DOI: [10.1016/j.jpain.2023.02.236](#).
8. Fleagle, T. R., Post, A. A., Dailey, D. L., Vance, C. G., **Bayman, E. O.**, Crofford, L. J., Sluka, K. A. & Chimenti, R. L. (2023). [Establishing a minimally clinically important difference of movement-evoked pain in musculoskeletal pain.](#) *J Pain* 24 (4, Supplement) 83-84. DOI: [10.1016/j.jpain.2023.02.241](#).
9. **Bayman, E. O.**, Nadel, L., Coffey, C., Sluka, K. A., Dailey, D. L., McCarthy, R. J. & Brummett, C. (2023). [Acute To Chronic Pain Signatures \(A2CPS\) thoracic enrollment.](#) *J Pain* 24 (4, Supplement) 7. DOI: [10.1016/j.jpain.2023.02.035](#).
10. Yarasir, E., Dailey, D. L., **Bayman, E. O.**, Berardi, G., Vance, C. G. T., Chimenti, R. L., Crofford, L. J., Van Gorp, B., Johnson, E. M. & Sluka, K. A. (2025). [320 - Demographic and socioeconomic characteristics do not affect fibromyalgia impact among fibromyalgia patients in the US midwest.](#) *J Pain* 29, Supplement 105118. DOI: [10.1016/j.jpain.2025.105118](#).

Reviews

1. Dexter, F., Sondekoppam, R. V. & **Bayman, E. O.** (2025). [Incidence proportions from random-effects meta-analyses of rare events with large cluster heterogeneity, including sensitivity to the normal distribution assumption.](#) *Cureus* 17 (9) e93214. DOI: [10.7759/cureus.93214](#). PMID: 41141070. PMCID: PMC12553500.

Non-peer-reviewed journal articles

1. Todd, M. M. & **Bayman, E. O.** (2013). [Fiberoptic versus videolaryngoscopic management of the difficult airway: problems with postrandomization patient exclusion.](#) *Anesthesiology* 118 (2) 460. DOI: [10.1097/ALN.0b013e31827bd227](#). PMID: 23340356.
This was a letter to the editor about post-randomization and dealing with missing data. I helped write the missing data related parts.

Editorials

1. **Bayman, E. O.** & Dexter, F. (2018). [Relative importance of strategies for improving the sample size selection and reporting of small randomized clinical trials in anesthesiology.](#) *Can J Anaesth* 65 (6) 607-610. DOI: [10.1007/s12630-018-1110-6](#). PMID: 29556936.
2. **Bayman, E. O.** & Brennan, T. J. (2018). [Video-assisted thoracoscopic surgery versus robotic-assisted thoracoscopic surgery and postoperative opioid consumption.](#) *J Thorac Dis* 10 (Suppl 26) S3222-S3223. DOI: [10.21037/jtd.2018.08.16](#). PMID: 30370119. PMCID: PMC6186588.
3. **Bayman, E. O.** & Dexter, F. (2021). [Multicollinearity in logistic regression models.](#) *Anesth Analg* 133 (2) 362-365. DOI: [10.1213/ANE.0000000000005593](#). PMID: 34257197.

Other Publications

1. Block, R. I., Magnotta, V. A., **Bayman, E. O.**, Choi, J. Y., Thomas, J. J. & Kimble, K. K. (2013). [In reply.](#) *Anesthesiology* 119 (1) 234-236. Anesthesiology. DOI: [10.1097/ALN.0b013e318297cca2](#). PMID: [23856665](#).
Letter to the Editor

2. Hasan, D. M., **Bayman, E. O.** & Broderick, J. (2017). [Letter by Hasan et al regarding article, "Aspirin and Risk of Subarachnoid Hemorrhage: Systematic Review and Meta-Analysis"](#). *Stroke* 48 (7) e184-e185. DOI: [10.1161/STROKEAHA.117.017550](#). PMID: [28536171](#). PMCID: [PMC5497759](#).
Letter to the Editor
3. **Bayman, E. O.**, Parekh, K. R., Keech, J. & Brennan, T. J. (2017). [Response to "VATS vs. thoracotomy regarding postoperative chronic pain"](#). *J Thorac Dis* 9 (12) E1151-E1153. DOI: [10.21037/jtd.2017.11.27](#). PMID: [29313852](#). PMCID: [PMC5756990](#).
Letter to the Editor
4. **Bayman, E. O.**, Parekh, K. R., Keech, J. & Brennan, T. J. (2017). [Response to "Editorial on pain following thoracic surgery"](#). *J Thorac Dis* 9 (12) E1154-E1155. DOI: [10.21037/jtd.2017.11.74](#). PMID: [29313846](#). PMCID: [PMC5756976](#).
Letter to the Editor
5. Block, R. I., Magnotta, V. A., **Bayman, E. O.**, Choi, J. Y., Thomas, J. J. & Kimble, K. K. (2018). [In reply. Anesthesiology](#) 128 (1) 225. DOI: [10.1097/ALN.0000000000001944](#). PMID: [29232230](#).
Letter to the Editor
6. Block, R. I., Magnotta, V. A., **Bayman, E. O.**, Choi, J. Y., Thomas, J. J. & Kimble, K. K. (2018). [In reply. Anesthesiology](#) 128 (6) 1261. DOI: [10.1097/ALN.0000000000002212](#). PMID: [29762360](#).
Letter to the Editor
7. Adams, M. C. B., Bann, C. M., **Bayman, E. O.**, Chao, M., Hergenroeder, G. W., Knott, C., Lindquist, M. A., Luo, Z. D., Martin, R., Martone, M. E., McCarthy, J., McCumber, M., Meropol, S. B., Ridenour, T. A., Saavedra, L. M., Sarker, A., Anstrom, K. J. & Thompson, W. K. (2025). [Building community through data: the value of a researcher driven open science ecosystem](#). *Pain Med* 26 (6) 295-298. DOI: [10.1093/pm/pnaf003](#). PMID: [39836639](#). PMCID: [PMC12130680](#).
Editorial

Research Interests/Current Projects

- Multi-centered clinical trials
- Power and sample size calculations
- Acute to chronic post-surgical pain
- Subgroup analysis
- Bayesian statistics

Grants and Contracts

Active (Funded)

1. Fibromyalgia TENS in Physical Therapy Study (FM-TIPS): An Embedded Pragmatic Clinical Trial; National Institutes of Health; Bayman, Emine O (Co-Investigator), Sluka, Kathleen (Principal Investigator)
 - UG AR076387
 - Sep 26, 2019 - Jul 31, 2024
 - Direct Cost: \$497,864.00, 15% effort
2. Clinical Coordinating Center for the Acute to Chronic Pain Signatures Program-Admin Supplement restricted to A2CPS Project Goals; National Institutes of Health; Bayman, Emine O (Co-Investigator), Coffey, Christopher (Principal Investigator), Sluka, Kathleen (Principal Investigator), Frey Law, Laura (Principal Investigator)
 - U24 NS112873
 - Aug 15, 2019 - Jul 31, 2025
 - 25% effort

- 10% 1st year; 35% 2nd year; 35% 3rd year
3. A Pharmacist Intervention for Monitoring and Treating Hypertension Using Bidirectional Texting; National Institutes of Health; Bayman, Emine O (Co-Investigator), Polgreen, Linnea (Principal Investigator), Carter, Barry (Principal Investigator)
 - R61 HL144880
 - Sep 15, 2019 - Aug 31, 2025
 - 5% effort
 4. Interdisciplinary Training Program in Pain Research; National Institutes of Health; Bayman, Emine O (Co-Investigator), Sluka, Kathleen (Principal Investigator), Usachev, Yuriy (Principal Investigator)
 - T32 NS045549
 - Jul 1, 2004 - Jan 31, 2027
 - Amount: \$4,452,606.00, 10% effort
 - This is a training program for predoctoral and M.D/Ph.D. postdoctoral fellows to gain exposure to the field of pain and expertise in the conduct of research into pain mechanisms.
 5. (Iowa ISIB) Summer Institute for Research Education in Biostatistics and Data Science; National Institutes of Health; Bayman, Emine O (Co-Investigator), Zamba, Gideon (Principal Investigator)
 - R25 HL161716
 - Mar 1, 2022 - Feb 28, 2027
 - Amount: \$1,280,640.00, 3% effort
 - We propose to enroll sixteen to eighteen students a year, including at least 50% of URM and at least 50% women, to build a pipeline with minority serving institutions, to build a longitudinal follow-up mechanism to track ISIB alumni into their graduate majors, and to measure an overall success through the percent of students who enroll in graduate programs in Biostatistics, Statistics, Data Science and in the STEM science data field.
 6. Network of Excellence in Neuroscience Clinical Trials (NeuroNEXT) - DCC; National Institutes of Health; Bayman, Emine O (Co-Investigator), Coffey, Christopher (Principal Investigator)
 - U01 NS077352
 - Sep 30, 2011 - Aug 31, 2028
 - 10% effort
 7. University of Iowa Institute for Clinical and Translational Science; US Department of Health & Human Services, National Institutes of Health; Bayman, Emine O (Co-Investigator), Winokur, Patricia (Principal Investigator), Hansen, Marlan (Principal Investigator)
 - UM1 TR004403
 - Apr 1, 2023 - Mar 31, 2030
 - Amount: \$28,344,223.00, 10% effort
 - Brief description of project goals: Our overarching goal is to accelerate integration of research into clinical partnerships around the state and, through team science, bringing our basic, translational and clinical research workforce together to escalate the pace and breadth of scientific discovery to impact healthcare for the state and beyond. Iowa is a rural state, which brings special health care needs and challenges. The ICTS is engaging with other CTSA hubs and national clinical and translational research systems to empirically test different approaches and to develop the evidence base of proven strategies for accelerating translation that can be more broadly disseminated. Though distance and rurality drive our approaches, the strategies that we develop are simply new and potentially better ways to generate broad representation and improved participation by patients, healthcare teams and academicians.

Completed

1. Statistical Modeling of Rate and Reliability of Time to Extubation for Meta-Analysis Comparing Desflurane to Sevoflurane; Baxter Pharmaceuticals; Bayman, Emine O (Co-Investigator), Dexter, Franklin (Principal Investigator)
 - Nov 2008 - Feb 2009
2. General Anesthesia During Human Infancy and Brain Development; SmartTots; Bayman, Emine O (Co-Investigator), Block, Robert I (Principal Investigator)
 - Jun 1, 2012 - May 31, 2014
3. Storz Against Glidescope Efficacy (StAGE Trial); Karl Storz Endoscope; Bayman, Emine O (Co-Investigator), Aziz, M (Principal Investigator)
 - Oct 1, 2012 - Sep 30, 2014
 - 25% effort
4. Brain fMRI to Predict Chronic Pain after Thoracotomy; University of Iowa; Bayman, Emine O (Principal Investigator)
 - Feb 2015
 - Amount: \$24,600.00
5. Predicting Chronic Pain after Thoracic Surgery: A Bayesian Approach; National Institute of Neurological Disorders and Stroke (NINDS); Bayman, Emine O (Principal Investigator)
 - R03 NS080110
 - Mar 2013 - Apr 2015
 - 25% effort
6. Clinical Islet Transplantation Trial; National Institutes of Health (NIH) / National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK); Bayman, Emine O (Co-Investigator), Foster (Principal Investigator)
 - U01 DK070431
 - Nov 15, 2015 - Jun 30, 2017
 - 5% effort
7. Bayesian Analysis of MAPP-I Psychosocial and Neuroimaging Data; National Institutes of Health (NIH) / NINDK; Bayman, Emine O (Co-Principal)
 - 572264 / U01 DK082316
 - Jan 1, 2016 - Jun 30, 2018
 - 27% effort
 - Subaward from University of Pennsylvania, R01 Award under U01DK082316; Funding Opportunity for Basic and Translational Science Studies in the MAPP Research Network
8. Phase II Trial of Nicotinamide Riboside for Relief of Taxane-Induced Sensory Neuropathy; National Institutes of Health (NIH) / National Cancer Institute (NCI); Bayman, Emine O (Co-Investigator), Hammond, Donna L (Principal Investigator)
 - R21 CA208968
 - Sep 1, 2016 - Aug 31, 2020
 - Amount: \$250,000.00, Direct Cost: \$232,181.00, 10% effort
9. Posterior Fossa Decompression with or without Duraplasty for Chiari Type I Malformation with Syringomyelia; Washington University in St. Louis/ Patient-Centered Outcomes Research Institute (PCORI); Bayman, Emine O (Co-Investigator), Torner, James (Principal Investigator)
 - WU-16-234-MOD / P01 NS131131
 - Dec 1, 2015 - Nov 30, 2020

- Direct Cost: \$9,975.00, 20% effort
10. Nontraumatic SubArachnoid Hemorrhage (SAH) Registry; University of Iowa; Bayman, Emine O (Co-Investigator)
 - Jul 1, 2016 - Dec 31, 2020
 - 10% effort
 - 20% support until September 2019, 10% ongoing
 11. Personalized Neuromodulation for Treating Post-Surgical Pain; Iowa Neuroscience Institute (INI); Bayman, Emine O (Principal Investigator), Vaidya, Jatin G (Principal Investigator)
 - Iowa Neuroscience Institute (INI) Accelerator Grant
 - Apr 1, 2019 - Mar 31, 2021
 - Amount: \$75,000.00, Direct Cost: \$75,000.00, 0% effort
 12. Mechanism-Based Treatment Approach to Chronic Tendinopathy; National Institutes of Health (NIH) / National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS); Bayman, Emine O (Co-Investigator), Chimenti, R (Principal Investigator)
 - R00 AR071517
 - Jul 1, 2019 - Jun 30, 2022
 - 0%, 0%, 10% in Years 1, 2, and 3.
 13. Alleviation of Paclitaxel-Induced Peripheral Neuropathies in Cancer Survivors; V Foundation for Cancer Research; Bayman, Emine O (Co-Investigator), Hammond, Donna L (Principal Investigator)
 - DT2019-011
 - Feb 1, 2019 - Feb 1, 2023
 - Amount: \$60,000.00, Direct Cost: \$60,000.00, 10% effort
 - 7.5%, 5%, 10%, in Years 1, 2, and 3.
 14. The Park Reeves Syringomyelia Consortium; Washington University in St. Louis / Sam & Besty Reeves; Bayman, Emine (Co-Investigator), Torner, James (Principal Investigator)
 - No Contact #
 - Sep 24, 2012 - Jun 30, 2024
 - Amount: \$260,605.00, 2% effort
 15. General Anesthesia During Early Childhood and Brain Development; National Institute of Child Health and Human Development, National Institutes of Health; Bayman, Emine O (Co-Investigator), Block, Robert I (Principal Investigator)
 - R01 HD089420
 - Jul 1, 2018 - Mar 31, 2025
 - 8% effort

Presentations

Invited Lectures

- | | |
|----------|--|
| Nov 2007 | Bayman, E. O. , Chaloner, K. & Cowles, M. K. Power and Sample Size Calculations for Multi-center Clinical Trials. Presented at Design and Analysis of Experiment (DAE) Conference, University of Georgia, Memphis, Tennessee. |
| Sep 2008 | Oral, R., Bayman, E. O. , Buhrow, J., Wibbenmeyer, L. & Assad, A. Illicit Drug Exposure in Children Evaluated for Alleged Abuse & Neglect. Presented at 9th Ray Helper Society Annual Meeting, Ray Helper Society, Tucson, Arizona. |

- Jun 2012 **Bayman, E. O.** & Chaloner, K. Detecting Qualitative Interaction among Subgroups of a Clinical Trial with a Bayesian Approach. Presented at ICSA 2012 Applied Statistics Symposium, International Chinese Statistical Association (ICSA), Boston, Massachusetts.
- Apr 2014 **Bayman, E. O.** Chronic Pain after Thoracic Surgery. Presented at Pain Research Program Work-in-Progress Meeting, University of Iowa, Carver College of Medicine, Iowa City, Iowa.
- Jun 2014 **Bayman, E. O.** [Approaches to Assessing Qualitative Interactions](#). Presented at Joint Applied Statistics Symposium, International Chinese Statistical Association (ICSA) & Korean International Statistical Society (KISS), Portland, Oregon.
- Jun 2014 **Bayman, E. O.** Who Is Not Performing As Fellow Colleagues? A Bayesian Hierarchical Model For Mandated Faculty Monitoring. Presented at American Statistical Association Oregon Chapter, American Statistical Association Oregon Chapter, Portland, Oregon.
- Sep 2014 **Bayman, E. O.** What does all this 'Greek' mean?: Navigating and Making Sense of Scientific Literature. Presented at Iowa Association of Nurse Anesthetists Meeting, Iowa Association of Nurse Anesthetists, Des Moines, Iowa.
- Mar 2015 **Bayman, E. O.** Assessing and Comparing Anesthesiologists' Performance on Mandated Metrics Using a Bayesian Hierarchical Model. Presented at Design and Analysis of Experiment (DAE) Conference, University of Georgia, Cary, North Carolina.
- Feb 2016 **Bayman, E. O.** Detecting Performance Outliers with Bayesian Methods. University of Iowa, College of Public Health, Department of Biostatistics, Iowa City, Iowa.
- Jun 2016 **Bayman, E. O.** Bayesian Outlier Detection: Joint Work with Kathryn Chaloner. Presented at International Society for Bayesian Analysis Meeting, International Society for Bayesian Analysis, Sardinia, Italy.
- May 2023 **Bayman, E. O.** Learning to Speak the Language of the Collaborators: Collaborating with Other Researchers. Presented at First Annual PURPOSE Pain Meeting, NIH HEAL Initiative, Washington, District of Columbia.

Oral Presentations

- Mar 2025 **Bayman, E. O.** Innovative Designs to Facilitate Cost-Effective Clinical Trials. Presented at American Society for Experimental Neurotherapeutics (ASENT) 2025 Annual Meeting, ASENT, Washington, District of Columbia.
- Jun 2025 **Bayman, E. O.** Bayesian Designs for Pain Research. Presented at Third Annual PURPOSE Pain Meeting, NIH HEAL Initiative, Washington, District of Columbia.

Posters

- Aug 2004 **Bayman, E. O.**, Taneli, Y., Ediz, B., Guvendeger, N., Kan, I. & Taneli, S. The Reliability and Validity Analysis on Yale Brown Obsessive Compulsive Disorder Scale for Adults and Children in Bursa. Presented at 16th World Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions (IACAPAP), International Association for Child and Adolescent Psychiatry and Allied Professions (IACAPAP), Berlin, Germany.
- 2006 Cakar, E., Dincer, U., Kiralp, M. Z., **Bayman, E. O.** & Dursun, H. Ankilozan Spondilitte Hastalik 'aktivitesnini Belirlemede akut faz Reaktaniari ve BASDAI'nin Karsilastirilmesi. Presented at Ulusal romatizmal Hastaliklar Kongresi, Antalya, Turkey.

- Feb 2007 Torner, J., Todd, M. M., Hindman, B. J., Clarke, W., Weeks, J. B., Shi, Q. & **Bayman, E. O.** Early Postoperative Neurological Deficits and Outcome after Subarachnoid Hemorrhage in Good Grade Patients. Presented at International Stroke Conference, American Stroke Association, San Francisco, California.
- Apr 2007 **Bayman, E. O.**, Chaloner, K. & Cowles, M. K. Bayesian Sample Size Calculations for Multi-Center Clinical Trials with Binary Responses. Presented at Health Sciences Research Week, University of Iowa Carver College of Medicine and the College of Public Health, Iowa City, Iowa.
Poster Competition Winner
- May 2007 **Bayman, E. O.**, Chaloner, K. & Cowles, M. K. Power and Sample Size Calculations for Bayesian Analysis and Assessment of Balance for Multi-Center Clinical Trials with Binary Responses. Presented at Midwest Biopharmaceutical Statistics Workshop, Ball State University, Muncie, Indiana.
- Aug 2007 Chaloner, K., **Bayman, E. O.** & Han, C. Bayesian Experimental Design in Practice: Generalized Linear Mixed Model Example, Nonlinear Mixed Effects Model Example. Presented at International Symposium on Business and Industrial Statistics, University of Azores Sao Miguel Island, Ponta Delgada Azores, Portugal.
- Aug 2007 **Bayman, E. O.**, Chaloner, K. & Cowles, K. Bayesian Power and Sample Size Calculations for Multi-Center Clinical Trials with Binary Responses. Presented at Joint Statistical Meeting, Salt Lake City, Utah.
- Aug 2007 Chaloner, K., **Bayman, E. O.**, Cowles, M. K., Shi, Q. & Zhang, L. Multi-Center Clinical Trials with Binary Outcomes and Random Effects for Centers: Sample Size and Power Determination. Presented at Joint Statistical Meeting, Salt Lake City, Utah.
- Jan 2008 **Bayman, E. O.** & Chaloner, K. Detecting Qualitative Interaction: A Bayesian Approach. Presented at Bayesian Biostatistics Conference, Houston, Texas.
- Mar 2008 **Bayman, E. O.** & Chaloner, K. Detecting Qualitative Interaction: A Bayesian Approach. Presented at International Biometric Society Eastern North American Region (ENAR) Meeting, International Biometric Society Eastern North American Region (ENAR), Arlington, Virginia.
- May 2008 **Bayman, E. O.** & Chaloner, K. Power of Test of Qualitative Interaction in Multi-Center Clinical Trials. Presented at Society for Clinical Trials Annual Meeting, Society for Clinical Trials, St. Louis, Missouri.
- Aug 2008 Leira, E. C., Torner, J. C., Davis, P. H., **Bayman, E. O.**, Weeks, J. B., Hindman, B. J. & Todd, M. M. A Simple Algorithm to Predict Site of Ruptured Aneurysm in Patients with Good Grade Subarachnoid Hemorrhage. Presented at 12th Congress of the European Federation of Neurological Societies Meeting, European Federation of Neurological Societies, Madrid, Spain.
- Oct 2009 From, R. P., Spofford, C. M., **Bayman, E. O.**, Szeluga, D. A., Choi, J. Y. & Brenchley, P. Anesthesia Machine Setup and Checkout: Web-Based Video Instruction Versus Lecture Group Instruction. Presented at American Society of Anesthesiologists Annual Meeting, American Society of Anesthesiologists (ASA), New Orleans, Louisiana.
- Oct 2009 Dexter, F., **Bayman, E. O.** & Epstein, R. H. Modeling Average and Variability of Time to Extubation for Meta-Analysis comparing Desflurane to Sevoflurane. Presented at American Society of Anesthesiologists Annual Meeting, American Society of Anesthesiologists (ASA), New Orleans.

- Feb 2010 Kumar, A. B., Tarasi, M. & **Bayman, E. O.** Is Time on Cardiopulmonary Bypass during Cardiac Surgery Related to Post Operative Acute Kidney Injury and Outcomes? A Meta-Analytic Study. Presented at Midwest Anesthesia Residents Conference (MARC), Association of Midwest Academic Anesthesia Chairs, Inc. (AMAAC), Cincinnati, Ohio.
- Mar 2010 Thomas, J. J., Choi, J. Y., **Bayman, E. O.**, Kimble, K. K., Todd, M. M. & Block, R. I. Does Anesthesia Exposure in Infancy Affect Academic Performance in Childhood?. Presented at International Science Symposium, International Anesthesia Research Society (IARS), Honolulu, Hawaii.
- Jun 2010 Kumar, A. B., Hata, J. S. & **Bayman, E. O.** Designing and Implementing a Web-Based Curriculum for the medical Student Clerkship in a Busy Surgical ICU - Our Three-Year Experience. Presented at The Society for Education in Anesthesia Meeting, The Society for Education in Anesthesia, Pittsburgh, Pennsylvania.
- May 2011 **Bayman, E. O.**, Chaloner, K., Hindman, B. J., Todd, M. M. & IHASt Investigators No Large Differences among Centers in a Multi-Center Neurosurgical Clinical Trial. Presented at Society for Clinical Trials Annual Meeting, Society for Clinical Trials, Vancouver, Canada.
- Jul 2012 **Bayman, E. O.** & Chaloner, K. Detecting Outliers in Multi-Center Clinical Trials. Presented at 8th World Congress in Probability and Statistics, Koç University, Istanbul, Turkey.
- Oct 2012 Ueda, K., Johnson, C., Odum, N. J. & **Bayman, E. O.** Ultrasound Visual guided Versus Doppler Auditory Assisted Versus Palpation Technique for Radial Arterial Cannulation in Adult Patients. Presented at American Society of Anesthesiologists Annual Meeting, American Society of Anesthesiologists (ASA), Washington, District of Columbia.
- Oct 2013 **Bayman, E. O.**, Dexter, F. & Todd, M. M. An Improved Statistical Method for Assessing and Comparing Anesthesiologists' Performance on Mandated Metrics. Presented at American Society of Anesthesiologists Annual Meeting, American Society of Anesthesiologists (ASA), San Francisco.
Best Abstract in Clinical Sciences
- Oct 15, 2013 Eisen, S. H., Hasan, D. M., **Bayman, E. O.** & Hindman, B. J. Factors Associated with ICU Admission after Elective Endovascular Treatment of Unruptured Intracranial Aneurysms. Presented at American Society of Anesthesiologists Annual Meeting, American Society of Anesthesiologists (ASA), San Francisco, California.
Conference Dates: October 12-16, 2013
Abstract A4121
- Apr 2014 Hussey, P., Ueda, K. & **Bayman, E. O.** Radial Arterial Line LC-CUSUM Learning Curve Among Residents. Presented at Midwest Anesthesia Residents Conference (MARC), Association of Midwest Academic Anesthesia Chairs, Inc. (AMAAC), Chicago, Illinois.
- May 2014 **Bayman, E. O.** & Brennan, T. J. No Change on the Incidence of Chronic Pain after Thoracotomy for Three Decades. Presented at American Pain Society Annual Meeting, American Pain Society (APS), Tampa, Florida.
- Mar 2015 Aziz, M., Abrons, R. O., Cattano, D., **Bayman, E. O.**, Swanson, D., Hagberg, C., Todd, M. M. & Brambrink, A. Comparison of the Storz C-MAC D-blade against the Glidescope, Efficacy in the Predicted Difficult Airway: STAGE Trial: A Multi-centered Randomized Controlled Trial. Presented at International Science Symposium, International Anesthesia Research Society (IARS), Honolulu, Hawaii.
Best of Category for Airway Management

- Apr 2015 **Bayman, E. O.** & Brennan, T. J. Chronic Pain after Thoracic Surgery. Presented at Health Sciences Research Week, University of Iowa Carver College of Medicine and the College of Public Health, Iowa City, Iowa.
- May 2016 **Bayman, E. O.** & Brennan, T. J. The Danish Questionnaire for Pain after Thoracic Surgery in a United States Population. Presented at American Pain Society Annual Meeting, American Pain Society (APS), Austin, Texas.
- Apr 2017 **Bayman, E. O.**, Parekh, K. R., Keech, J. C. & Brennan, T. J. A Prospective Study of Predictors of Chronic Pain after Thoracic Surgery. Presented at Health Sciences Research Week, University of Iowa Carver College of Medicine and the College of Public Health, Iowa City, Iowa.
- Apr 2017 **Bayman, E. O.** Use of Bayesian Methods to Correctly Identify True Outliers in Clinical Metrics of Individuals and Provider Performance. Presented at Scholarship in Family Medicine Conference, University of Iowa, Iowa City, Iowa.
- May 2017 **Bayman, E. O.**, Parekh, K. R., Keech, J. C. & Brennan, T. J. A Prospective Study of Predictors of Chronic Pain after Thoracic Surgery. Presented at American Pain Society Annual Meeting, American Pain Society (APS), Pittsburgh, Pennsylvania.
- Oct 2017 **Bayman, E. O.**, Parekh, K. R., Keech, J. C. & Brennan, T. J. Association of Preoperative Expected Pain with Acute Pain after Video-Assisted Thoracoscopic Surgery. Presented at American Society of Anesthesiologists Annual Meeting, American Society of Anesthesiologists (ASA), Boston, Massachusetts.
- Nov 2017 **Bayman, E. O.** Acute Pain after Thoracic Surgery. Presented at The ACTION-APS-AAPM Acute Pain Taxonomy (AAAPT) Meeting, The ACTION-APS-AAPM Acute Pain Taxonomy (AAAPT), Washington, District of Columbia.
- Apr 2018 Ranganath, Y. S., Yap, A., Ravindranath, S., **Bayman, E. O.** & Marian, A. Adductor Canal Block: An Anatomical Study in Volunteers to Identify the Relationship between the Two Commonly Described Block Approaches. Presented at American Society of Regional Anesthesia and Pain Medicine Annual Meeting, American Society of Regional Anesthesia and Pain Medicine (ASRA), New York, New York.
- Apr 2018 **Bayman, E. O.**, Parekh, K. R., Keech, J. C. & Brennan, T. J. Predictors of Moderate-to-Severe Acute Pain after Video-Assisted Thoracoscopic Surgery. Presented at Association of University Anesthesiologists Annual Meeting, Association of University Anesthesiologists (AUA), Chicago, Illinois.
- Oct 2018 **Bayman, E. O.** Bias in Research. Presented at University of Iowa Master's in Translational Biomedicine, University of Iowa, Iowa City, Iowa.
- Apr 2019 **Bayman, E. O.**, Bishop, M., Hadlandsmyth, K., Lund, B., Kang, S., Vander-Weg, M. W. & Mosher, H. Chronic Opioid Use after Thoracic Surgery among VA Veterans. Presented at American Pain Society Scientific Meeting, American Pain Society (APS), Milwaukee, Wisconsin.
- Oct 2020 **Bayman, E. O.** Bias in Research. Presented at University of Iowa Master's in Translational Biomedicine, University of Iowa, Iowa City, Iowa.
- Nov 2020 Sluka, K. A., Law, L. F., Coffey, C. S., **Bayman, E. O.**, Ecklund, D., Vance, C. G., Dailey, D. L., Wager, T., Lindquist, M., Kahn, A., Burns, J., McCarthy, R., Jacobs, J., Buvanendran, A., Zhou, X., Brummett, C., Clauw, D. & Williams, D. Conceptual Design and Protocol for the Acute to Chronic Pain Signatures Program (A2CPS). Presented at Inaugural Meeting of the US Association for the Study of Pain (USAP), US Association for the Study of Pain.

- Nov 2020 Dailey, D. L., Vance, C. G., Chimenti, R., Franck, C., Post, A., Johnson, E., Costigan, M., Koepp, M., Huff, T., Ecklund, D., **Bayman, E. O.**, Zimmerman, B., Archer, K., Crofford, L. J. & Sluka, K. A. Fibromyalgia Transcutaneous Electrical Nerve Stimulation in Physical Therapy Study (FM TIPS): An Embedded Pragmatic Clinical Trial in Physical Therapy Clinics. Presented at Inaugural Meeting of the US Association for the Study of Pain (USAP), US Association for the Study of Pain.
- Nov 2020 **Bayman, E. O.**, Dailey, D. L., Ecklund, D., Johnson, E., Vance, C. G., Zimmerman, B., Costigan, M., Chimenti, R., Spencer, M., Post, A., Huff, T., Koepp, M., Archer, K. R., Peters, R., Nye, G., Franck, C., Neill-Hudson, T., Crofford, L. & Sluka, K. A. Impact of COVID-19 on a Pragmatic, Cluster Randomized Clinical Trial for Fibromyalgia. Presented at Inaugural Meeting of the US Association for the Study of Pain (USAP), US Association for the Study of Pain.
- Nov 2020 Chimenti, R., Post, A., Rio, E., **Bayman, E. O.**, Hall, M., Netto, C. D., Wilken, J., Danielson, J., Moseley, L. & Sluka, K. A. Integrating Pragmatism and Rigor - Impact of the Pandemic on a Randomized Controlled Trial of a Complex Intervention. Presented at Inaugural Meeting of the US Association for the Study of Pain (USAP), US Association for the Study of Pain.
- May 2022 **Bayman, E. O.** Impact of COVID-19 on the Patient Enrollment for a Pragmatic, Cluster Randomized Clinical Trial for Fibromyalgia. Presented at US Association for the Study of Pain, US Association for the Study of Pain, Cincinnati, Ohio.
- May 2022 **Bayman, E. O.** Increasing the Generalizability of Pain Study Results. Presented at Society for Clinical Trials 2022 Annual Meeting, Society for Clinical Trials, San Diego, California.
- Sep 2022 **Bayman, E. O.** Acute to Chronic Pain Signature Program Powered for Discovery and Prediction Modeling. Presented at 2022 World Congress on Pain, International Association for the Study of Pain, Toronto, Canada.
- Apr 2023 **Bayman, E. O.**, Nadel, L., Coffey, C., Sluka, K., Dailey, D., McCarthy, R. & Brummett, C. Acute to Chronic Pain Signatures (A2CPS) Thoracic Enrollment. Presented at United States Association for the Study of Pain Meeting 2023, USASP, Durham, North Carolina.
- May 2023 **Bayman, E. O.**, Zimmerman, B., Heagerty, P., Turner, L., Lafontant, D., McCabe, M., Ecklund, D., Crofford, L. & Sluka, K. Reassessing the Sample Size in a Cluster Randomized Trial. Presented at Society for Clinical Trials 2023, Society for Clinical Trials, Baltimore, Maryland.

Service

Professional Service

Professional Organizations

- | | |
|----------------|--------------------------------------|
| 2014 - 2020 | American Pain Society |
| 2020 - Present | US Association for the Study of Pain |

Journal Reviews/Referee Manuscripts

2009 - Present	Springer, Reviewer, Publications Book reviewer
2010 - Present	Anesthesia and Analgesia, Baltimore, Maryland, Assistant Statistical Editor 115 reviews
2010 - Present	Contemporary Clinical Trials, New York, New York, Reviewer, Publications 1 review
2011 - Present	Statistics in Medicine, New York, New York, Reviewer, Publications 1 review
2012 - Present	British Medical Journal, Iowa City, Iowa, Reviewer, Publications 3 reviews
2012 - Present	Anesthesiology, Philadelphia, Pennsylvania, Reviewer, Publications 4 reviews
2013 - Present	The Journal of Pain, Philadelphia, Pennsylvania, Reviewer, Publications 22 reviews
2015 - Present	The Clinical Journal of Pain, Hagerstown, Maryland, Reviewer, Publications 6 reviews
2015 - Present	Acta Anaesthesiologica Scandinavica, Oxford, United Kingdom, Reviewer, Publications 1 review
2015 - Present	PLoS ONE, San Francisco, California, Reviewer, Publications 1 review
2016 - Present	Journal of Pain Research, Auckland, New Zealand, Reviewer, Publications 2 reviews
2016 - Present	BMC Anesthesiology, London, England, Reviewer, Publications 2 reviews
2017 - Present	Pain Medicine, Malden, Massachusetts, Reviewer, Publications 4 reviews
2018 - Present	European Journal of Pain, London, England, Reviewer, Publications
2019 - Present	Injury, Amsterdam, Netherlands, Reviewer, Publications
2022 - Present	Sequential Analysis, Reviewer, Publications
2023 - Present	Nature Medicine, Reviewer, Publications

Review Panels

2011	National Science Foundation (NSF) Proposal Review, National Science Foundation (NSF), Iowa City, Iowa, Reviewer, Grant Proposals
2020	Clinical Study Consortium Review Panel, National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), Bethesda, Maryland, Reviewer, Grant Proposals
2019 - 2021	American Society of Anesthesiologists (ASA) Committee on Research, Schaumburg, Illinois, Reviewer, Grant Proposals
2022	Clinical Trial of Amobarbital to Reduce PTOA Risk in Tibial Pilon Fractures, Data and Safety Monitoring Board (DSMB), Bethesda, Maryland, Member
2022	Pathophysiology of Active and Latent Myofascial Trigger Points, Data and Safety Monitoring Board (DSMB), Bethesda, Maryland, Member

2022	Data and Safety Monitoring Board, Young Adults (18-24 years) as Community Health Workers in Humanitarian Settings: A Pilot Test of the Mechanisms of Effect on their Own Wellbeing, Member
2022	Study Section Reviewer Grant Proposals, National Center for Complementary and Integrative Medicine Special Emphasis Panel, Member
2022	Special Emphasis Panel, National Institute of Neurological Disorders and Stroke (NINDS), Bethesda, Maryland, Study Section Reviewer, Grant Proposal
2022	Natural Product Early Phase Clinical Trial Award Special Emphasis Panel, NCCIH, Reviewer, Grant Proposals
2022	Special Emphasis Panel Review Group 2023/02 ZNS1 SRB-W (05), NINDS, Reviewer, Grant Proposals
2022	Special Emphasis/Scientific Review Group 2023/01 ZNS1 SRB-G (56), NINDS, Reviewer, Grant Proposals
2022	Study Section Reviewer, Grant Proposals, NINDS Special Emphasis Panel (460814), Member
2022	Study Section Reviewer, Grant Proposals, NINDS Special Emphasis Panel (460815), Member
2021 - 2023	HEAL Data Ecosystem Collective Board, National Institutes of Health (NIH), Bethesda, Maryland, Member
2023	NIH NINDS Study Section ZNS1 SRB G58 Special Emphasis Panel, Reviewer, Grant Proposals
2023	NIH/NCCIH Study Section 2023/10 ZAT1 SH (11) 1 Early Phase Clinical Trials of Natural Products (NP), Reviewer, Grant Proposals
2023	Fostering Mental, Emotional, and Behavioral Health among Children in School Settings: Opportunities for Multisite Trials of Complementary and Integrative Health Interventions Panel, NIH/NCCIH Study Section, Member
2024	Continuation of the Childhood Liver Disease Research Network) ChiLDReN, NIH Study Section, Member
2022 - Present	Data and Safety Monitoring Board, National Institutes of Health (NIH) Funded Liver Cirrhosis Network (LCN), Bethesda, Maryland, Member
2024 - Present	Clinical Trials and Comparative Effectiveness Studies in Neurology, 2024/01 ZNS1 SRB-G (64), NIH / NINDS Study Section, Member

National/International Committees

2022 - Present	Membership Committee, Society for Clinical Trials, Member
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Other

2021 - 2025	The Journal of Pain, Philadelphia, Pennsylvania, Editorial Board Member 4-year appointment
2010 - Present	Anesthesia and Analgesia, Baltimore, Maryland, Assistant Statistical Editor
2011 - Present	Neurosurgery, Philadelphia, Pennsylvania, Editorial Review Board Member, Biostatistics Section
2021 - Present	European Journal of Pain, London, England, Editorial Board Member

University, College, Department Service

University

- 2018 - 2020 Faculty Senate, Iowa City, Iowa, Senate Representative for the Carver College of Medicine
- 2024 - 2025 Executive Leadership Academy - Higher Education Program, University of Iowa, Iowa City, Iowa, Faculty Mentor
- 2022 - Present Women's Faculty Development Symposium Planning Committee, University of Iowa, Iowa City, Iowa, Representative for College of Public Health

College

- 2011 - 2019 Admissions Committee, University of Iowa Carver College of Medicine, Iowa City, Iowa, Interviewer
- 2012 - 2019 Research Week Poster Judge, University of Iowa Carver College of Medicine, Iowa City, Iowa
- 2021 Alumni Task Force, University of Iowa College of Public Health, Iowa City, Iowa, Member
- 2021 Search Committee for Associate Dean for Research, University of Iowa College of Public Health, Iowa City, Iowa, Member
- 2021 - 2022 Research Council, University of Iowa College of Public Health, Iowa City, Iowa, Chair
- 2020 - 2023 Research Council, University of Iowa College of Public Health, Iowa City, Iowa, Member
Chair listed separately

Department

- 2017 - 2018 Strategic Planning Task Force, University of Iowa Department of Anesthesia, Iowa City, Iowa, Member
- 2019 Student Awards Committee, University of Iowa Department of Biostatistics, Iowa City, Iowa, Member
- 2010 - 2019 Research Review Committee, University of Iowa Department of Anesthesia, Iowa City, Iowa, Member
- 2017 - 2019 Faculty Promotion and Tenure Committee, University of Iowa Department of Anesthesia, Iowa City, Iowa, Member
5-Year Reviewer (Associate Professor) Reviewer x 1 (2019 x1)
- 2021 Faculty Search Committee, University of Iowa Department of Biostatistics, Iowa City, IA, Member
- Aug 2020 - May 2021 Promotion and Tenure Internal Peer Evaluation Committee, University of Iowa Department of Biostatistics, Iowa City, Iowa, Member
- 2019 - 2021 Admissions and Student Recruitment Committee, University of Iowa Department of Biostatistics, Iowa City, Iowa, Member
- 2022 - 2023 Chaloner Lecture Committee, University of Iowa Department of Biostatistics, Iowa City, Iowa, Member
- 2020 - 2024 Diversity, Equity, and Inclusion Committee, University of Iowa Department of Biostatistics, Iowa City, Iowa, Member

2020 - 2024	M.S. Core Exam Committee, University of Iowa Department of Biostatistics, Iowa City, Iowa, Member
2023 - 2024	Woolson Lecture Committee, University of Iowa Department of Biostatistics, Iowa City, Iowa, Member
Sep 2020 - Present	Ladies in UI Biostatistics, Organizer and Mentor