

COLLEGE OF PUBLIC HEALTH CURRICULUM VITAE

Emine Ozgur Bayman

June 3, 2022

I. EDUCATION AND PROFESSIONAL HISTORY

A. Education

<u>Institution</u>	<u>Field of Study</u>	<u>Degree Obtained</u>	<u>Degree Date</u>
Hacettepe University, Faculty of Science, Ankara, Turkey	Statistics	BS	1999
Uludag University, School of Medicine, Bursa, Turkey	Biostatistics	MS	2002
University of Iowa, College of Public Health, Iowa City, Iowa, United States	Biostatistics	MS	2004
University of Iowa, College of Public Health, Iowa City, Iowa, United States	Biostatistics	PhD	2008

B. Professional and Academic Positions

<u>Position Title</u>	<u>Dates of Service</u>	<u>Location/Institution</u>
Research/Teaching Assistant	2000-2003	Department of Biostatistics, Uludag University, School of Medicine, Bursa, Turkey
Research Assistant	2004-2005	Biostatistics Consulting Center, University of Iowa, College of Public Health, Iowa City, Iowa
Research Assistant	2005-2008	Department of Biostatistics, University of Iowa, College of Public Health, Iowa City, Iowa
Teaching Assistant	2008	Statistical Methods in Clinical Trials, Department of Biostatistics, College of Public Health/University of Iowa, Iowa City, Iowa
Associate	2008-2011	Department of Anesthesia, University of Iowa Health Care, Carver College of Medicine, Iowa City, Iowa

<u>Position Title</u>	<u>Dates of Service</u>	<u>Location/Institution</u>
Associate (Secondary Faculty)	2008-2011	Department of Biostatistics, University of Iowa, College of Public Health, Iowa City, Iowa
Assistant Professor	2011-2017	Department of Anesthesia, University of Iowa Health Care, Carver College of Medicine, Iowa City, Iowa
Assistant Professor (Secondary Faculty)	2011-2017	Department of Biostatistics, University of Iowa, College of Public Health, Iowa City, Iowa
Associate Professor	2017-2019	Department of Anesthesia, University of Iowa, Carver College of Medicine, Iowa City, Iowa
Associate Professor (Secondary Faculty)	2017-2019	Department of Biostatistics, University of Iowa, College of Public Health, Iowa City, Iowa
Associate Professor (Secondary Faculty)	2019-Present	Department of Anesthesia, University of Iowa, Carver College of Medicine, Iowa City
Associate Professor	2019-Present	Department of Biostatistics, University of Iowa, College of Public Health, Iowa City, Iowa
Deputy Director, Clinical Trials Statistical & Data Management Center (CTSDMC)	2019-Present	Department of Biostatistics, University of Iowa, College of Public Health, Iowa City, Iowa

C. Honors, Awards, Recognitions, and Outstanding Achievements

<u>Year</u>	<u>Title</u>
2003-2007	Graduate Education Scholarship, Council of Higher Education, Turkey
2007	Poster Competition Winner, University of Iowa, Carver College of Medicine
2007	Tuition Scholarship, University of Iowa, College of Public Health, Department of Biostatistics
2007	Accommodation and Travel Award, Design and Analysis Experiments (DAE) Conference
2008	Travel Award, Bayesian Biostatistics Conference

<u>Year</u>	<u>Title</u>
2013	Best Abstract Award, American Society of Anesthesiologists (ASA)
2020	Inducted into Delta Omega Honorary Society in Public Health, College of Public Health/University of Iowa
2021	CPH Faculty Service Award, College of Public Health/University of Iowa

II. TEACHING

A. Teaching Assignments on a semester-by-semester basis (*classroom, seminar, teaching lab*)

1. University of Iowa

<u>Semester/Year</u>	<u>Course Title/Number</u>	<u>Semester Hours</u>	<u># Students</u>	<u>Role</u>	<u>Percent Responsible</u>
Spring 2008	171:266 Statistical Methods in Clinical Trials	3		Teaching Assistant	33%
Spring 2009	171:266 Statistical Methods in Clinical Trials	3		Team Teacher	33%
Summer 2009	171:161 Introduction to Biostatistics	3		Primary Instructor	100%
Fall 2009	156:204 Biostatistics for Biomedical Research	1		Primary Instructor	100%
Spring 2010	156:204 Biostatistics for Biomedical Research	1		Primary Instructor	100%
Spring 2010	171:266 Statistical Methods in Clinical Trials	3		Team Teacher	33%
Fall 2010	156:204 Biostatistics for Biomedical Research	1		Primary Instructor	100%
Spring 2011	171:266 Statistical Methods in Clinical Trials	3		Team Teacher	33%
Fall 2011	156:204 Biostatistics for Biomedical Research	1		Primary Instructor	100%

<u>Semester/Year</u>	<u>Course Title/Number</u>	<u>Semester Hours</u>	<u># Students</u>	<u>Role</u>	<u>Percent Responsible</u>
Spring 2012	171:266 Statistical Methods in Clinical Trials	3		Team Teacher	33%
Fall 2012	156:204 Biostatistics for Biomedical Research	1		Primary Instructor	100%
Spring 2013	171:266 Statistical Methods in Clinical Trials	3		Team Teacher	33%
Spring 2014	171:266 Statistical Methods in Clinical Trials	3		Team Teacher	33%
Fall 2014	156:204 Biostatistics for Biomedical Research	1		Primary Instructor	100%
Spring 2015	171:266 Statistical Methods in Clinical Trials	3		Team Teacher	33%
Spring 2016	BIOS:6610 Statistical Methods in Clinical Trials	3		Team Teacher	20%
Fall 2016	BIOS:7600 Advanced Clinical Trials Seminar			Guest Lecturer	
Fall 2016	BIOS:7600 Advanced Clinical Trials Seminar			Guest Lecturer	
Spring 2017	BIOS:6610 Statistical Methods in Clinical Trials	3		Team Teacher	20%
Spring 2018	BIOS:6610 Statistical Methods in Clinical Trials	3		Team Teacher	20%
Fall 2018	BIOS:7600 Advanced Clinical Trials Seminar			Guest Lecturer	
Spring 2019	BIOS:6610 Statistical Methods in Clinical Trials	3		Guest Lecturer	

<u>Semester/Year</u>	<u>Course Title/Number</u>	<u>Semester Hours</u>	<u># Students</u>	<u>Role</u>	<u>Percent Responsible</u>
Fall 2019	BIOS:5710:0001 Biostatistical Methods I	4	14	Primary Instructor	100%
Spring 2020	BIOS:6610 Statistical Methods in Clinical Trials	3		Guest Lecturer	
Fall 2020	BIOS:5710:0001 Biostatistical Methods I	4	20	Primary Instructor	100%
Fall 2020	BIOS:7600 Advanced Clinical Trials Seminar			Guest Lecturer	
Fall 2021	BIOS:5130:0001 Applied Categorical Data Analysis	3	13	Primary Instructor	100%
Fall 2022	BIOS:5710:0001 Biostatistical Methods I	4	TBD	Primary Instructor	100%

2. Other Institutions

<u>Semester / Year</u>	<u>Course Title/Number</u>	<u>Semester Hours</u>	<u># Students</u>	<u>Role</u>	<u>Percent Responsible</u>	<u>Institution</u>
Spring 2000	Introduction to Biostatistics II	3		Teaching Assistant		Uludag University School of Medicine
Fall 2000	Data Analysis with Statistical Packages I	3		Teaching Assistant		Uludag University School of Medicine
Fall 2000	Introduction to Biostatistics I	3		Teaching Assistant		Uludag University School of Medicine
Spring 2001	Data Analysis with Statistical Packages II	3		Teaching Assistant		Uludag University School of Medicine

<u>Semester / Year</u>	<u>Course Title/Number</u>	<u>Semester Hours</u>	<u># Students</u>	<u>Role</u>	<u>Percent Responsible</u>	<u>Institution</u>
Spring 2001	Introduction to Biostatistics II	3		Teaching Assistant		Uludag University School of Medicine
Fall 2001	Data Analysis with Statistical Packages I	3		Teaching Assistant		Uludag University School of Medicine
Spring 2002	Survival Data Analysis	3		Teaching Assistant		Uludag University School of Medicine
Fall 2002	Introduction to Biostatistics I	3		Teaching Assistant		Uludag University School of Medicine

- B. Course Materials** (syllabi, instructional web pages, computer lab materials) (Description only - *full materials to be included in promotion dossier*)

III. SCHOLARSHIP

A. Publications or Creative Works

1. Peer-Reviewed Methodological Papers

1. Dexter F, Bayman EO, Epstein RH (2010). Statistical modeling of average and variability of time to extubation for meta-analysis comparing desflurane to sevoflurane. *Anesth Analg*, 110(2):570-580. PMID: 19820242 http://journals.lww.com/anesthesia-analgesia/fulltext/2010/02000/Statistical_Modeling_of_Average_and_Variability_of.50.aspx

Contribution: This was a heavy statistical methodological paper. I was responsible for the Bayesian analysis of the study and writing the Bayesian sections of the paper. [This paper received an editorial.]

2. Bayman EO, Chaloner K, Cowles MK (2010). Detecting qualitative interaction: a Bayesian approach. *Stat Med*, 29(4):455-463. PMID: 19950107 <http://onlinelibrary.wiley.com/doi/10.1002/sim.3787/full>

Contribution: 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.

3. Bayman EO, Chaloner KM, Hindman BJ, Todd MM (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. PMC: PMC3599203, PMID: 23324207 <https://bmcmmedresmethodol.biomedcentral.com/articles/10.1186/1471-2288-13-5>

Contribution: This is a Bayesian methodological paper with applications to data from the IHAST trial. I developed the statistical methodology with Dr. Chaloner.

4. Bayman EO, Dexter F, Todd MM (2015). Assessing and comparing anesthesiologists' performance on mandated metrics using a Bayesian approach. *Anesthesiology*, 123(1):101-115. PMID: 25906338
<http://anesthesiology.pubs.asahq.org/article.aspx?articleid=2288837>

Contribution: I developed the Bayesian model. Dr. Dexter and I collaborated on the statistical analysis plan, and we wrote the first draft of the paper.

5. Bayman EO, Dexter F, Todd MM (2016). Prolonged operative "time to extubation" is not an appropriate metric for comparing the performance of individual anesthesia providers. *Anesthesiology*, 124(2):322-338. PMID: 26545101
<http://anesthesiology.pubs.asahq.org/article.aspx?articleid=2470465>

Contribution: I developed the Bayesian model. Dr. Dexter and I collaborated on the statistical analysis plan, and we wrote the first draft of the paper. [This paper received an editorial.]

6. Bayman EO, 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.
<http://www.sciencedirect.com/science/article/pii/S2405603016300206>

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

7. Dexter F, Bayman EO, Dexter EU (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. PMID: 28961563

8. Bayman EO, Oleson JJ, Rabbitts JA (2021). AAAPT: Assessment of the Acute Pain Trajectory. *Pain Med*, 22(3):533-547. PMID: 33735384
<https://academic.oup.com/painmedicine/article/22/3/533/6178331>

2. Peer-Reviewed Applied Papers

1. Kurt E, Evrensel T, Gonullu G, Kanat O, Demiray M, Arslan M, Unlu (Bayman) EO, 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.

Contribution: I performed statistical analysis of the study.

2. Ozkan T, Kıyıcı M, Memesa A, Dolar E, Ozakın C, Unlu (Bayman) EO, Ozeke T (2002). Value of stool antigen test in diagnosis of helicobacter pylori infection. *Hepato-Gastroenterology Supplement II*, 49:321.

Contribution: I performed statistical analysis of the study.

3. Demircan C, Cikrikler HI, Engindeniz Z, Cebicci H, Atar N, Guler V, Unlu (Bayman) EO, 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. PMC: PMC1726824, PMID: 15911947
<http://emj.bmj.com/content/22/6/411.long>

Contribution: I performed statistical analysis of the study.
Correction - October 01, 2005

4. Ercan I, Özkaya G, Alper Z, Ediz B, Bayman EÖ, 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. http://www.ejgm.org/ozet.php?makale_id=1108&dil=en

Contribution: I helped with the statistical analysis of the study and writing the manuscript for a non-Turkish journal.

5. Cakar E, Dincer U, Kiralp MZ, Taskaynatan MA, Yasar E, Bayman EO, 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. PMID: 17285222 <https://link.springer.com/article/10.1007%2Fs10067-007-0545-x>

Contribution: I performed statistical analysis of the study.

6. McGregor DG, Lanier WL, Pasternak JJ, Rusy DA, Hogan K, Samra S, Hindman B, Todd MM, Schroeder DR, Bayman EO, 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. PMID: 18362587
<http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1932342>

Contribution: I performed statistical analysis of the study.

7. Coghlan LA, Hindman BJ, Bayman EO, Banki NM, Gelb AW, Todd MM, Zaroff JG (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. PMC: PMC2684783, PMID: 19095990 <http://stroke.ahajournals.org/content/40/2/412.long>

Contribution: I performed statistical analysis of the study.

8. Todd MM, Hindman BJ, Clarke WR, Torner JC, Weeks JB, Bayman EO, Shi Q, Spofford CM (2009). Perioperative fever and outcome in surgical patients with aneurysmal subarachnoid hemorrhage. *Neurosurgery*, 64(5):897-908; discussion 908. PMID: 19404150 <https://academic.oup.com/neurosurgery/article-lookup/doi/10.1227/01.NEU.0000341903.11527.2F>

Contribution: I performed statistical analysis of the study.

9. Hindman BJ, Bayman EO, Pfisterer WK, Torner JC, Todd MM (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. PMID: 19952722
<http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1932453>

Contribution: I performed statistical analysis of the study and helped write the Methods and Results sections of the paper.

10. Agoliati A, Dexter F, Lok J, Masursky D, Sarwar MF, Stuart SB, Bayman EO, Epstein RH (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. PMID: 20418303 http://journals.lww.com/anesthesia-analgesia/fulltext/2010/05000/Meta_Analysis_of_Average_and_Variability_of_Time.30.aspx

Contribution: This study was an extension of a 2009 Dexter, Bayman, Epstein paper. I performed Bayesian analysis for this study.

11. Nguyen HP, Zaroff JG, Bayman EO, Gelb AW, Todd MM, Hindman BJ (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. PMC: PMC2910193, PMID: 20571361
<http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1933103>

Contribution: I performed statistical analysis of the study and helped write the Methods and Results sections of the paper.

12. Hata JS, Stotts C, Shelsky C, Bayman EO, Frazier A, Wang J, Nickel EJ (2011). Reduced mortality with noninvasive hemodynamic monitoring of shock. *J Crit Care*, 26(2):224.e1-8. PMID: 20813490
<http://www.sciencedirect.com/science/article/pii/S0883944110001772?via%3Dihub>

Contribution: I performed statistical analysis of the study and helped write the Methods and Results sections of the paper.

13. Oral R, Bayman L, Assad A, Wibbenmeyer L, Buhrow J, Austin A, Bayman EO (2011). Illicit drug exposure in patients evaluated for alleged child abuse and neglect. *Pediatr Emerg Care*, 27(6):490-495. PMID: 21629147 http://journals.lww.com/pec-online/Abstract/2011/06000/Illicit_Drug_Exposure_in_Patients_Evaluated_for.5.aspx

Contribution: I helped with the design of the study and wrote the Methods and Results sections of the manuscript.

14. Bayman EO, Dexter F, Laur JJ, Wachtel RE (2011). National incidence of use of monitored anesthesia care. *Anesth Analg*, 113(1):165-169. PMID: 21596866

http://journals.lww.com/anesthesia-analgesia/fulltext/2011/07000/National_Incidence_of_Use_of_Monitored_Anesthesia.28.aspx

Contribution: I was responsible for the statistical analysis of the study with the SUDAAN package. We also developed simulations and created a long Appendix to serve as a reference for similar future studies. I was responsible for all the SUDAAN related parts of the study.

15. Spofford CM, Bayman EO, Szeluga DJ, From RP (2012). Anesthesia machine checkout and room setup: a randomized, single-blind, comparison of two teaching modalities. *J Educ Perioper Med*, 14(1):E060. PMC: PMC4719546, PMID: 27175391

Contribution: I helped with the design of 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.

16. Laur JJ, Bayman EO, Foldes PJ, Rosenquist RW (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. PMID: 22157740
http://journals.lww.com/rapm/Abstract/2012/01000/Triple_Blind_Randomized_Clinical_Trial_of_Time.6.aspx

Contribution: I helped with the design of the study, created the randomization list, performed interim analysis and helped interpret results. I also helped to write the Methods and Results sections.

17. Kumar AB, Suneja M, Bayman EO, Weide GD, 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. PMID: 21924633
<http://www.sciencedirect.com/science/article/pii/S105307701100526X?via%3Dihub>

Contribution: 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 design of the study, performed meta-analysis and wrote the Methods and Results sections of the manuscript.

18. Mahaney KB, Todd MM, Bayman EO, Torner JC (2012). Acute postoperative neurological deterioration associated with surgery for ruptured intracranial aneurysm: incidence, predictors, and outcomes. *J Neurosurg*, 116(6):1267-1278. PMID: 22404668
http://thejns.org/doi/abs/10.3171/2012.1.JNS111277?url_ver=Z39.88-2003&rfr_id=ori%3Arid%3Acrossref.org&rfr_dat=cr_pub%3Dpubmed&

Contribution: I performed statistical analysis of the study and helped write the Methods and Results sections of the paper.

19. Block RI, Thomas JJ, Bayman EO, Choi JY, Kimble KK, Todd MM (2012). Are anesthesia and surgery during infancy associated with altered academic performance during childhood? *Anesthesiology*, 117(3):494-503. PMID: 22801049
<http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1933799>

Contribution: 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.]

20. Oral R, Koc F, Bayman EO, 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. PMID: 22716202
<http://www.tandfonline.com/doi/abs/10.3109/14767058.2012.703714?journalCode=ijmf20>

Contribution: I helped with the design of the study and writing the Methods section of the manuscript.

21. Kumar AB, Hata JS, Bayman EO, 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. PMID: 23337679
<http://www.sciencedirect.com/science/article/pii/S1931720412001791?via%3Dihub>

Contribution: I helped with the design of the study and writing the Methods section of the manuscript.

22. Todd MM, Bayman EO (2013). Fiberoptic versus videolaryngoscopic management of the difficult airway: problems with postrandomization patient exclusion. *Anesthesiology*, 118(2):460. PMID: 23340356
<http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1918710>

Contribution: This was a letter to the editor related to post-randomization and how to deal with missing data. I helped write the missing data related parts.

23. Ueda K, Puangsuvan S, Hove MA, Bayman EO (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. PMID: 23151422 <https://academic.oup.com/bja/article-lookup/doi/10.1093/bja/aes383>

Contribution: I was very involved with this large study from the beginning. I helped with the design of 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.

24. Dexter F, Epstein RH, Bayman EO, 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. PMID: 23558844
http://journals.lww.com/anesthesia-analgesia/fulltext/2013/05000/Estimating_Surgical_Case_Durations_and_Making.23.aspx

Contribution: One of the examples in this paper was the IHAST trial, and I was responsible for IHAST-related data analysis.

25. Oral R, Koc F, Jogerst K, Bayman L, Austin A, Sullivan S, Bayman EO (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. PMID: 24060204 <http://www.tandfonline.com/doi/abs/10.3109/14767058.2013.847418?journalCode=ijmf20>
- Contribution: I helped with the design of the study and helped write the Methods section of the manuscript.
26. Bayman EO, Brennan TJ (2014). Incidence and severity of chronic pain at 3 and 6 months after thoracotomy: meta-analysis. *J Pain*, 15(9):887-897. PMID: 24968967 <http://www.sciencedirect.com/science/article/pii/S1526590014007780?via%3Dihub>
- Contribution: Dr. Brennan and I performed searches for the meta-analysis. I performed statistical analyses and wrote the first draft of the paper.
27. Eisen SH, Hindman BJ, Bayman EO, Dexter F, Hasan DM (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. PMID: 25806401 http://journals.lww.com/anesthesia-analgesia/fulltext/2015/07000/Elective_Endovascular_Treatment_of_Unruptured.28.aspx
- Contribution: I helped write the Methods section of the manuscript.
28. Marian AA, Ranganath YS, Bayman EO, Senasu J, Brennan TJ (2015). A comparison of 2 ultrasound-guided approaches to the saphenous nerve block: adductor canal versus distal transsartorial: a prospective, randomized, blinded, noninferiority trial. *Reg Anesth Pain Med*, 40(5):623-630. PMID: 26110441 <https://rapm.bmj.com/content/40/5/623>
- Contribution: Non-inferiority trials are harder to explain to readers compared to superiority trials. I helped with the design of 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 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.
29. Ueda K, Bayman EO, Johnson C, Odum NJ, Lee JJ (2015). A randomised controlled trial of radial artery cannulation guided by Doppler vs. palpation vs. ultrasound. *Anaesthesia*, 70(9):1039-1044. PMID: 25857597 <http://onlinelibrary.wiley.com/doi/10.1111/anae.13062/abstract;jsessionid=E1CB56A33DD618C6B6DF8B839EFCD453.f04t02>
- Contribution: I helped with the design of 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.

30. Aziz MF, Abrons RO, Cattano D, Bayman EO, Swanson DE, Hagberg CA, Todd MM, Brambrink AM (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. PMID: 26579847 http://journals.lww.com/anesthesia-analgesia/fulltext/2016/03000/First_Attempt_Intubation_Success_of_Video.22.aspx

Contribution: 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.]

31. Marian AA, Bayman EO, Gillett A, Hadder B, Todd MM (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. PMC: PMC4776367, PMID: 26936616 <https://bmcmmedinformdecismak.biomedcentral.com/articles/10.1186/s12911-016-0267-6>

Contribution: 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.

32. Aziz MF, Bayman EO, Van Tienderen MM, Todd MM, Brambrink AM (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. PMC: PMC4913400, PMID: 27317711 <https://academic.oup.com/bja/article-lookup/doi/10.1093/bja/aew128>

Contribution: 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 with the STAGE trial.

33. Bayman EO, Lennertz R, Brennan TJ (2017). Pain-related limitations in daily activities following thoracic surgery in a United States population. *Pain Physician*, 20(3):E367-E378. PMID: 28339436 <http://www.painphysicianjournal.com/linkout?issn=1533-3159&vol=20&page=E367>

Contribution: 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.

34. Bayman EO, Parekh KR, Keech J, Selte A, Brennan TJ (2017). A prospective study of chronic pain after thoracic surgery. *Anesthesiology*, 126(5):938-951. PMC: PMC5395336, PMID: 28248713

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

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46. Lin SH, Galet C, Zanaty M, Bayman EO, Rogers WK, Hasan D, Allen LD (2021). Melatonin and risk of mortality in subjects with aneurysmal subarachnoid hemorrhage. *Clin Neurol Neurosurg*, 210:106990. PMID: 34739880 <https://www.sciencedirect.com/science/article/abs/pii/S0303846721005199>
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Contribution: Represented the MAPP Research Network

48. Berardi G, Frey-Law L, Sluka KA, Bayman EO, Coffey CS, Ecklund D, Vance CG, Dailey DL, Burns J, Buvanendran A, McCarthy RJ, Jacobs J, Zhou XJ, Wixson R, Balach T, Brummett CM, Clauw D, Colquhoun D, Harte SE, Harris RE, Williams DA, Chang AC, Waljee J, Fisch KM, Jepsen K, Laurent LC, Olivier M, Langefeld CD, Howard TD, Fiehn O, Jacobs JM, Dakup P, Qian W, Swensen AC, Lokshin A, Lindquist M, Caffo BS, Crainiceanu C, Zeger S, Kahn A, Wager T, Taub M, Ford J, Sutherland SP, Wandner LD (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. <https://www.frontiersin.org/articles/10.3389/fmed.2022.849214/full>

3. Non-Peer-Reviewed Papers (reports, proceedings, etc.)

4. Books/Monographs

5. Chapters

1. Bayman EO (2021). Middle Development Trials. S. Piantadosi & C. L. Meinert (Eds.), *Principles and Practice of Clinical Trials*, New York, NY: *Springer*, ISBN: 978-3-319-52677-5, https://link.springer.com/referenceworkentry/10.1007/978-3-319-52677-5_81-1

6. Electronic Publications

1. Bayman EO, Chaloner K, Cowles MK (2009). Detecting qualitative interaction: a Bayesian approach, Iowa City, IA: *Technical Report* <http://www.public-health.uiowa.edu/biostat/research/documents/Bayman-Chaloner-Cowles-Subgroup-Tech-Report-Jan09.pdf>

7. Abstracts

1. Lai HH, Bayman EO, Landis JR, Harte S, Clemens JQ, 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, Baltimore, MD: *J Urol* 203(4S):Supplement.
2. Berardi G, Vance CG, Dailey DL, Ecklund D, Coffey CS, Bayman EO, Sluka KA (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, Cambridge: *J Clin Transl Sci* 6(s1):51. <https://www.cambridge.org/core/journals/journal-of-clinical-and-translational-science/article/297-the-acute-to-chronic-pain-signatures-program-a2cps-conceptual-design-and-protocol-implementation-of-a-multisite-observational-study-assessing-risk-and-resilience-biomarkers/6C03AC9657E41ABEAACF2B3D6A2990B3>

8. Other

1. Block RI, Thomas JJ, Bayman EO, Choi JY, Kimble KK, Todd MM (2013). In reply *Anesthesiology* 119(1):234-236. PMID: 23856665 <http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1918333>
Contribution: This was in response to a comment, and I helped provide a statistically sound response.
2. Hasan DM, Bayman EO, Broderick J (2017). Letter by Hasan et al regarding article, "Aspirin and Risk of Subarachnoid Hemorrhage: Systematic Review and Meta-Analysis", Dallas, TX: *Stroke* 48(7):e184-e185. PMC: PMC5497759, PMID: 28536171 <http://stroke.ahajournals.org/content/48/7/e184.long>
3. Bayman EO, Parekh KR, Keech J, Brennan TJ (2017). Response to "Editorial on pain following thoracic surgery" *J Thorac Dis* 9(12):E1154-E1155. PMC: PMC5756976, PMID: 29313846
4. Bayman EO, Parekh KR, Keech J, Brennan TJ (2017). Response to "VATS vs. thoracotomy regarding postoperative chronic pain" *J Thorac Dis* 9(12):E1151-E1153. PMC: PMC5756990, PMID: 29313852
5. Bayman EO, Brennan TJ (2018). In reply *Anesthesiology* 128(1):225. PMID: 29232230 <http://anesthesiology.pubs.asahq.org/article.aspx?articleid=2666395>
6. Block RI, Magnotta VA, Bayman EO, Choi JY, Thomas JJ, Kimble KK (2018). In reply *Anesthesiology* 128(6):1261. PMID: 29762360 <http://anesthesiology.pubs.asahq.org/article.aspx?articleid=2681391>

7. Bayman EO, 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. PMID: 29556936 <https://link.springer.com/article/10.1007%2Fs12630-018-1110-6> (editorial)
8. Bayman EO, Brennan TJ (2018). Video-assisted thoracoscopic surgery versus robotic-assisted thoracoscopic surgery and postoperative opioid consumption, Hong Kong: *J Thorac Dis* 10(Suppl 26):S3222-S3223. PMC: PMC6186588, PMID: 30370119 <https://jtd.amegroups.com/article/view/23490/18142>
9. Bayman EO, Dexter F (2021). Multicollinearity in logistic regression models, Philadelphia, PA: *Anesth Analg* 133(2):362-365. PMID: 34257197

B. Areas of Research Interest/Current Projects

1. Bayesian statistics
2. Multi-centered clinical trials
3. Power and sample size calculations
4. Prediction models for chronic pain related to surgery
5. Subgroup analysis

C. Sponsored Research (*ALL grants*)

(if you are not the PI, state your role or contributions - in a few sentences)

1. Grants Received

Source Title P.I.	Number of Months % Effort	Direct Funds Period of Funding
Baxter Pharmaceuticals <i>Statistical Modeling of Rate and Reliability of Time to Extubation for Meta-Analysis Comparing Desflurane to Sevoflurane</i> Franklin Dexter, <i>Principal Investigator, University of Iowa/Anesthesia</i> Emine O. Bayman, <i>Statistician, University of Iowa/Anesthesia</i>	4 months	11/01/2008- 02/28/2009

Source Title P.I.	Number of Months % Effort	Direct Funds Period of Funding
SmartTots <i>General Anesthesia During Human Infancy and Brain Development</i> Robert I. Block, <i>Principal Investigator, University of Iowa/Anesthesia</i> Emine O. Bayman, <i>Statistician, University of Iowa/Anesthesia</i>	24 months	06/01/2012- 05/31/2014
Karl Storz Endoscope <i>Storz Against Glidescope Efficacy (StAGE Trial)</i> M Aziz, <i>Principal Investigator</i> Emine O. Bayman, <i>Statistician, University of Iowa/Anesthesia</i>	24 months 25%	10/01/2012- 09/30/2014
R03 NS080110-02 National Institute of Neurological Disorders and Stroke (NINDS) <i>Predicting Chronic Pain after Thoracic Surgery: A Bayesian Approach</i> Emine O. Bayman, <i>Principal Investigator, University of Iowa/Anesthesia</i>	25 months 25%	03/01/2013- 04/30/2015
University of Iowa <i>Brain fMRI to Predict Chronic Pain after Thoracotomy</i> Emine O. Bayman, <i>Principal Investigator, University of Iowa/Anesthesia</i>	1 months	\$24,600 02/01/2015- 02/28/2015
5-U01-DK070431-11 NIH / NIDDK <i>Clinical Islet Transplantation Trial</i> Foster, <i>Principal Investigator</i> Emine O. Bayman, <i>Statistician, University of Iowa/Anesthesia</i>	19 months 5%	11/15/2015- 06/30/2017

Source Title P.I.	Number of Months % Effort	Direct Funds Period of Funding
NIH / NINDK (Subaward from University of Pennsylvania, R01 Award under U01DK082316; Funding Opportunity for Basic and Translational Science Studies in the MAPP Research Network) <i>Bayesian Analysis of MAPP-I Psychosocial and Neuroimaging Data</i> Emine O. Bayman, <i>Co-Principal, University of Iowa/Anesthesia</i>	30 months 27%	01/01/2016- 06/30/2018
U01 NS077352 NeuroNEXT <i>Network for Excellence in Neuroscience Clinical Trials</i> M Cudkowicz, <i>Principal Investigator</i> Emine O. Bayman, <i>Co-Investigator, University of Iowa/Biostatistics</i>	144 months 10%	09/30/2011- 06/30/2023
WU-16-234-MOD Washington University in St. Louis/PCORI <i>Posterior Fossa Decompression with or without Duraplasty for Chiari Type I Malformation with Syringomyelia</i> James Torner, <i>Principal Investigator, University of Iowa</i> Emine O. Bayman, <i>Co-Investigator, University of Iowa/Biostatistics</i>	20%	12/01/2015- 06/30/2022
University of Iowa <i>Nontraumatic SubArachnoid Hemorrhage (SAH) Registry</i> Emine O. Bayman, <i>Statistician, University of Iowa/Biostatistics</i>	10%	07/01/2016- 12/31/2020
<i>20% support until September 2019, 10% ongoing</i>		
R21CA208968 NIH / National Cancer Institute (NCI) <i>Phase II Trial of Nicotinamide Riboside for Relief of Taxane-Induced Sensory Neuropathy</i> Donna L. Hammond, <i>Principal Investigator, University of Iowa/Anesthesia</i> Emine O. Bayman, <i>Co-Investigator, University of Iowa/Biostatistics</i>	36 months 10%	\$250,000 09/01/2016- 08/31/2020

Source Title P.I.	Number of Months % Effort	Direct Funds Period of Funding
R01 HD089420 NIH/National Institute of Child Health and Human Development (NICHD) <i>General Anesthesia During Early Childhood and Brain Development</i> Robert I. Block, <i>Principal Investigator, University of Iowa</i> Emine O. Bayman, <i>Co-Investigator, University of Iowa/Biostatistics</i>	60 months 10%	07/01/2018- 03/31/2023
U24 NS112873 National Institutes of Health (NIH) <i>Clinical Coordination Center for Common Fund Acute to Chronic Pain Signatures (A2CPS) Program</i> Kathleen A. Sluka, <i>Co-Principal, University of Iowa/Physical Therapy and Rehabilitation Science</i> C Coffey, <i>Co-Principal</i> Emine O. Bayman, <i>Co-Investigator, University of Iowa/Biostatistics</i>	60 months	08/15/2019- 07/31/2023
<i>10% 1st year; 35% 2nd year; 35% 3rd year</i>		
R61 HL144880 National Institutes of Health (NIH) <i>A Pharmacist Intervention for Monitoring and Treating Hypertension Using Bidirectional Texting</i> L Polgreen, <i>Principal Investigator</i> Emine O. Bayman, <i>Co-Investigator, University of Iowa/Biostatistics</i>	5%	09/15/2019- 08/31/2024
<i>5% salary support</i>		
Iowa Neuroscience Institute (INI) Accelerator Grant Iowa Neuroscience Institute (INI) <i>Personalized Neuromodulation for Treating Post- Surgical Pain</i> Jatin G. Vaidya, <i>Co-Principal, University of Iowa/Psychiatry</i> Emine O. Bayman, <i>Co-Principal, University of Iowa/Anesthesia</i>	24 months	\$75,000 04/01/2019- 03/31/2021

Source Title P.I.	Number of Months % Effort	Direct Funds Period of Funding
DT2019-011 V Foundation for Cancer Research <i>Alleviation of Paclitaxel-Induced Peripheral Neuropathies in Cancer Survivors</i> Donna L. Hammond, <i>Principal Investigator, University of Iowa/Anesthesia</i> Emine O. Bayman, <i>Co-Investigator, University of Iowa/Anesthesia</i>	36 months	\$60,000 02/01/2019- 02/01/2022
<i>7.5%, 5%, 10%, in Years 1, 2, and 3.</i>		
R00 AR071517 National Institutes of Health (NIH), National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) <i>Mechanism-Based Treatment Approach to Chronic Tendinopathy</i> R Chimenti, <i>Principal Investigator, University of Iowa/Physical Therapy</i> E O. Bayman, <i>Co-Investigator, University of Iowa/Biostatistics</i>	36 months	07/01/2019- 06/30/2022
<i>0%, 0%, 10% in Years 1, 2, and 3.</i>		
UG AR076387 NIH <i>Fibromyalgia TENS in Physical Therapy Study (TIPS): An Embedded Pragmatic Clinical Trial</i> Kathleen Sluka, <i>Principal Investigator</i> Emine O. Bayman, <i>Co-Investigator</i>	15%	09/26/2019- 08/31/2020

2. Grants Pending

Source Title P.I.	Number of Months % Effort	Direct Funds Period of Funding
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PCORI The Migraine AAAA Study: a large, multicenter, open-label, randomized clinical trial to compare the effectiveness and tolerability of migraine prevention medications Coffey, C, DCC PI Emine O. Bayman, <i>Co-Investigator</i> 10% in year 1; 15% in years 2 to 5		
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D. Presentations

1. Invited Presentations

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
November 2007	Power and Sample Size Calculations for Multi-center Clinical Trials (Bayman EO, Chaloner K, Cowles MK)	Design and Analysis of Experiment (DAE) Conference, University of Georgia, Memphis, Tennessee, United States	Invited Lecture
June 2012	Detecting Qualitative Interaction among Subgroups of a Clinical Trial with a Bayesian Approach (Bayman EO, Chaloner K)	ICSA 2012 Applied Statistics Symposium, International Chinese Statistical Association (ICSA), Boston, Massachusetts, United States	Invited Lecture
April 2014	Chronic Pain after Thoracic Surgery (Bayman EO)	Pain Research Program Work- in-Progress Meeting, University of Iowa, Carver College of Medicine, Iowa City, Iowa, United States	Invited Lecture

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
June 2014	Approaches to Assessing Qualitative Interactions (Bayman EO)	Joint Applied Statistics Symposium, International Chinese Statistical Association (ICSA) & Korean International Statistical Society (KISS), Portland, Oregon, United States	Invited Lecture
June 2014	Who Is Not Performing As Fellow Colleagues? A Bayesian Hierarchical Model For Mandated Faculty Monitoring (Bayman EO)	American Statistical Association Oregon Chapter, American Statistical Association Oregon Chapter, Portland, Oregon, United States	Invited Lecture
September 2014	What does all this 'Greek' mean?: Navigating and Making Sense of Scientific Literature (Bayman EO)	Iowa Association of Nurse Anesthetists Meeting, Iowa Association of Nurse Anesthetists, Des Moines, Iowa, United States	Invited Lecture
March 2015	Assessing and Comparing Anesthesiologists' Performance on Mandated Metrics Using a Bayesian Hierarchical Model (Bayman EO)	Design and Analysis of Experiment (DAE) Conference, University of Georgia, Cary, North Carolina, United States	Invited Lecture
February 2016	Detecting Performance Outliers with Bayesian Methods (Bayman EO)	University of Iowa, College of Public Health, Department of Biostatistics, Iowa City, Iowa, United States	Invited Lecture
June 2016	Bayesian Outlier Detection: Joint Work with Kathryn Chaloner (Bayman EO)	International Society for Bayesian Analysis Meeting, International Society for Bayesian Analysis, Sardinia, Italy	Invited Lecture

2. Conference Presentations/Posters

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
August 2004	The Reliability and Validity Analysis on Yale Brown Obsessive Compulsive Disorder Scale for Adults and Children in Bursa (Bayman EO, Taneli Y, Ediz B, Guvendeger N, Kan I, Taneli S)	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	Poster
2006	Ankilozan Spondilitte Hastalik 'aktivitesnini Belirlemede akut faz Reaktaniari ve BASDAI'nin Karsilastirilmesi (Cakar E, Dincer U, Kiralp MZ, Bayman EO, Dursun H)	Ulusal romatizmal Hastaliklar Kongresi, Antalya, Turkey	Poster
February 2007	Early Postoperative Neurological Deficits and Outcome after Subarachnoid Hemorrhage in Good Grade Patients (Torner J, Todd MM, Hindman BJ, Clarke W, Weeks JB, Shi Q, Bayman EO)	International Stroke Conference, American Stroke Association, San Francisco, California, United States	Poster
April 2007	Bayesian Sample Size Calculations for Multi-Center Clinical Trials with Binary Responses (Bayman EO, Chaloner K, Cowles MK)	Health Sciences Research Week, University of Iowa Carver College of Medicine and the College of Public Health, Iowa City, Iowa, United States	Poster
May 2007	Power and Sample Size Calculations for Bayesian Analysis and Assessment of Balance for Multi-Center Clinical Trials with Binary Responses (Bayman EO, Chaloner K, Cowles MK)	Midwest Biopharmaceutical Statistics Workshop, Ball State University, Muncie, Indiana, United States	Poster

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
August 2007	Bayesian Experimental Design in Practice: Generalized Linear Mixed Model Example, Nonlinear Mixed Effects Model Example (Chaloner K, Bayman EO, Han C)	International Symposium on Business and Industrial Statistics, University of Azores Sao Miguel Island, Ponta Delgada Azores, Portugal	Poster
August 2007	Bayesian Power and Sample Size Calculations for Multi-Center Clinical Trials with Binary Responses (Bayman EO, Chaloner K, Cowles K)	Joint Statistical Meeting, Salt Lake City, Utah, United States	Poster
August 2007	Multi-Center Clinical Trials with Binary Outcomes and Random Effects for Centers: Sample Size and Power Determination (Chaloner K, Bayman EO, Cowles MK, Shi Q, Zhang L)	Joint Statistical Meeting, Salt Lake City, Utah, United States	Poster
January 2008	Detecting Qualitative Interaction: A Bayesian Approach (Bayman EO, Chaloner K)	Bayesian Biostatistics Conference, Houston, Texas	Poster
March 2008	Detecting Qualitative Interaction: A Bayesian Approach (Bayman EO, Chaloner K)	International Biometric Society Eastern North American Region (ENAR) Meeting, International Biometric Society Eastern North American Region (ENAR), Arlington, Virginia, United States	Poster
May 2008	Power of Test of Qualitative Interaction in Multi-Center Clinical Trials (Bayman EO, Chaloner K)	Society for Clinical Trials Annual Meeting, Society for Clinical Trials, St. Louis, Missouri, United States	Poster
August 2008	A Simple Algorithm to Predict Site of Ruptured Aneurysm in Patients with Good Grade Subarachnoid Hemorrhage (Leira EC, Torner JC, Davis PH, Bayman EO, Weeks JB, Hindman BJ, Todd MM)	12th Congress of the European Federation of Neurological Societies Meeting, European Federation of Neurological Societies, Madrid	Poster

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
October 2009	Anesthesia Machine Setup and Checkout: Web-Based Video Instruction Versus Lecture Group Instruction (From RP, Spofford CM, Bayman EO, Szeluga DA, Choi JY, Brenchley P)	American Society of Anesthesiologists Annual Meeting, American Society of Anesthesiologists (ASA), New Orleans, Louisiana, United States	Poster
October 2009	Modeling Average and Variability of Time to Extubation for Meta-Analysis comparing Desflurane to Sevoflurane (Dexter F, Bayman EO, Epstein RH)	American Society of Anesthesiologists Annual Meeting, American Society of Anesthesiologists (ASA), New Orleans, United States	Poster
February 2010	Is Time on Cardiopulmonary Bypass during Cardiac Surgery Related to Post Operative Acute Kidney Injury and Outcomes? A Meta-Analytic Study (Kumar AB, Tarasi M, Bayman EO)	Midwest Anesthesia Residents Conference (MARC), Association of Midwest Academic Anesthesia Chairs, Inc. (AMAAC), Cincinnati, Ohio, United States	Poster
March 2010	Does Anesthesia Exposure in Infancy Affect Academic Performance in Childhood? (Thomas JJ, Choi JY, Bayman EO, Kimble KK, Todd MM, Block RI)	International Science Symposium, International Anesthesia Research Society (IARS), Honolulu, Hawaii, United States	Poster
June 2010	Designing and Implementing a Web-Based Curriculum for the medical Student Clerkship in a Busy Surgical ICU - Our Three-Year Experience (Kumar AB, Hata JS, Bayman EO)	The Society for Education in Anesthesia Meeting, The Society for Education in Anesthesia, Pittsburgh, Pennsylvania, United States	Poster
May 2011	No Large Differences among Centers in a Multi-Center Neurosurgical Clinical Trial (Bayman EO, Chaloner K, Hindman BJ, Todd MM, IHAST Investigators)	Society for Clinical Trials Annual Meeting, Society for Clinical Trials, Vancouver, Canada	Poster
July 2012	Detecting Outliers in Multi-Center Clinical Trials (Bayman EO, Chaloner K)	8th World Congress in Probability and Statistics, Koç University, Istanbul, Turkey	Poster

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
October 2012	Ultrasound Visual guided Versus Doppler Auditory Assisted Versus Palpation Technique for Radial Arterial Cannulation in Adult Patients (Ueda K, Johnson C, Odum NJ, Bayman EO)	American Society of Anesthesiologists Annual Meeting, American Society of Anesthesiologists (ASA), Washington, District of Columbia, United States	Poster
October 2013	An Improved Statistical Method for Assessing and Comparing Anesthesiologists' Performance on Mandated Metrics (Bayman EO, Dexter F, Todd MM)	American Society of Anesthesiologists Annual Meeting, American Society of Anesthesiologists (ASA), San Francisco, United States	Poster
October 15, 2013	Factors Associated with ICU Admission after Elective Endovascular Treatment of Unruptured Intracranial Aneurysms (Eisen SH, Hasan DM, Bayman EO, Hindman BJ)	American Society of Anesthesiologists Annual Meeting, American Society of Anesthesiologists (ASA), San Francisco, California, United States	Poster
April 2014	Radial Arterial Line LC-CUSUM Learning Curve Among Residents (Hussey P, Ueda K, Bayman EO)	Midwest Anesthesia Residents Conference (MARC), Association of Midwest Academic Anesthesia Chairs, Inc. (AMAAC), Chicago, Illinois, United States	Poster
May 2014	No Change on the Incidence of Chronic Pain after Thoracotomy for Three Decades (Bayman EO, Brennan TJ)	American Pain Society Annual Meeting, American Pain Society (APS), Tampa, Florida, United States	Poster
March 2015	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 (Aziz M, Abrons RO, Cattano D, Bayman EO, Swanson D, Hagberg C, Todd MM, Brambrink A)	International Science Symposium, International Anesthesia Research Society (IARS), Honolulu, Hawaii, United States	Poster

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
April 2015	Chronic Pain after Thoracic Surgery (Bayman EO, Brennan TJ)	Health Sciences Research Week, University of Iowa Carver College of Medicine and the College of Public Health, Iowa City, Iowa, United States	Poster
May 2016	The Danish Questionnaire for Pain after Thoracic Surgery in a United States Population (Bayman EO, Brennan TJ)	American Pain Society Annual Meeting, American Pain Society (APS), Austin, Texas, United States	Poster
April 2017	A Prospective Study of Predictors of Chronic Pain after Thoracic Surgery (Bayman EO, Parekh KR, Keech JC, Brennan TJ)	Health Sciences Research Week, University of Iowa Carver College of Medicine and the College of Public Health, Iowa City, Iowa, United States	Poster
April 2017	Use of Bayesian Methods to Correctly Identify True Outliers in Clinical Metrics of Individuals and Provider Performance (Bayman EO)	Scholarship in Family Medicine Conference, University of Iowa, Iowa City, Iowa, United States	Poster
May 2017	A Prospective Study of Predictors of Chronic Pain after Thoracic Surgery (Bayman EO, Parekh KR, Keech JC, Brennan TJ)	American Pain Society Annual Meeting, American Pain Society (APS), Pittsburgh, Pennsylvania, United States	Poster
October 2017	Association of Preoperative Expected Pain with Acute Pain after Video-Assisted Thoracoscopic Surgery (Bayman EO, Parekh KR, Keech JC, Brennan TJ)	American Society of Anesthesiologists Annual Meeting, American Society of Anesthesiologists (ASA), Boston, Massachusetts, United States	Poster
November 2017	Acute Pain after Thoracic Surgery (Bayman EO)	The ACTION-APS-AAPM Acute Pain Taxonomy (AAAPT) Meeting, The ACTION-APS-AAPM Acute Pain Taxonomy (AAAPT), Washington, District of Columbia, United States	Poster

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
April 2018	Adductor Canal Block: An Anatomical Study in Volunteers to Identify the Relationship between the Two Commonly Described Block Approaches (Ranganath YS, Yap A, Ravindranath S, Bayman EO, Marian A)	American Society of Regional Anesthesia and Pain Medicine Annual Meeting, American Society of Regional Anesthesia and Pain Medicine (ASRA), New York, New York, United States	Poster
April 2018	Predictors of Moderate-to-Severe Acute Pain after Video-Assisted Thoracoscopic Surgery (Bayman EO, Parekh KR, Keech JC, Brennan TJ)	Association of University Anesthesiologists Annual Meeting, Association of University Anesthesiologists (AUA), Chicago, Illinois, United States	Poster
October 2018	Bias in Research (Bayman EO)	University of Iowa Master's in Translational Biomedicine, University of Iowa, Iowa City, Iowa, United States	Poster
April 2019	Chronic Opioid Use after Thoracic Surgery among VA Veterans (Bayman EO, Bishop M, Hadlandsmyth K, Lund B, Kang S, Vander-Weg MW, Mosher H)	American Pain Society Scientific Meeting, American Pain Society (APS), Milwaukee, Wisconsin, United States	Poster
October 2020	Bias in Research (Bayman EO)	University of Iowa Master's in Translational Biomedicine, University of Iowa, Iowa City, Iowa, United States	Poster
November 2020	Conceptual Design and Protocol for the Acute to Chronic Pain Signatures Program (A2CPS) (Sluka KA, Law LF, Coffey CS, Bayman EO, Ecklund D, Vance CG, Dailey DL, Wager T, Lindquist M, Kahn A, Burns J, McCarthy R, Jacobs J, Buvanendran A, Zhou X, Brummett C, Clauw D, Williams D)	Inaugural Meeting of the US Association for the Study of Pain (USAP), US Association for the Study of Pain, United States	Poster

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
November 2020	Fibromyalgia Transcutaneous Electrical Nerve Stimulation in Physical Therapy Study (FM TIPS): An Embedded Pragmatic Clinical Trial in Physical Therapy Clinics (Dailey DL, Vance CG, Chimenti R, Franck C, Post A, Johnson E, Costigan M, Koepp M, Huff T, Ecklund D, Bayman EO, Zimmerman B, Archer K, Crofford LJ, Sluka KA)	Inaugural Meeting of the US Association for the Study of Pain (USAP), US Association for the Study of Pain, United States	Poster
November 2020	Impact of COVID-19 on a Pragmatic, Cluster Randomized Clinical Trial for Fibromyalgia (Bayman EO, Dailey DL, Ecklund D, Johnson E, Vance CG, Zimmerman B, Costigan M, Chimenti R, Spencer M, Post A, Huff T, Koepp M, Archer KR, Peters R, Nye G, Franck C, Neill-Hudson T, Crofford L, Sluka KA)	Inaugural Meeting of the US Association for the Study of Pain (USAP), US Association for the Study of Pain, United States	Poster
November 2020	Integrating Pragmatism and Rigor - Impact of the Pandemic on a Randomized Controlled Trial of a Complex Intervention (Chimenti R, Post A, Rio E, Bayman EO, Hall M, Netto CD, Wilken J, Danielson J, Moseley L, Sluka KA)	Inaugural Meeting of the US Association for the Study of Pain (USAP), US Association for the Study of Pain, United States	Poster
May 2022	Impact of COVID-19 on the Patient Enrollment for a Pragmatic, Cluster Randomized Clinical Trial for Fibromyalgia (Bayman EO)	US Association for the Study of Pain, USASP, Cincinnati, Ohio	Poster
May 2022	Increasing the Generalizability of Pain Study Results (Bayman EO)	Society for Clinical Trials 2022 Annual Meeting, Society for Clinical Trials, San Diego, California	Poster

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
September 2022	Acute to Chronic Pain Signature Program Powered for Discovery and Prediction Modeling (Bayman EO)	IASP 2022 World Congress on Pain, International Association for the Study of Pain, Toronto, Canada	Poster

3. Other Presentations

<u>Year</u>	<u>Title</u>	<u>Organization</u>	<u>Presentation Type</u>
September 2008	Illicit Drug Exposure in Children Evaluated for Alleged Abuse & Neglect (Oral R, Bayman EO, Buhrow J, Wibbenmeyer L, Assad A)	9th Ray Helfer Society Annual Meeting, Ray Helfer Society, Tucson, Arizona, United States	Lecture

IV. SERVICE

A. Offices/appointments held in professional organizations

1. Editorships

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2010-Present	Anesthesia and Analgesia	Assistant Statistical Editor
2011-Present	Neurosurgery	Editorial Review Board Member, Biostatistics Section
2021-Present	European Journal of Pain	Editorial Board member
2021-Present	The Journal of Pain	Editorial Board member

2. Review Panels

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2011	National Science Foundation (NSF) Proposal Review, National Science Foundation (NSF)	Study section Reviewer, Grant Proposals
2019-2021	ASA Committee on Research	Study section Reviewer, Grant Proposals
2020	NIDDK Clinical Study Consortium Review Panel	Study section Reviewer, Grant Proposals
2022	NINDS special emphasis panel	Study section Reviewer, Grant Proposals

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2022	Pathophysiology of Active and Latent Myofascial Trigger Points	Member of Data and Safety Monitoring Board
2022	Clinical trial of amobarbital to reduce PTOA risk in tibial pilon fractures	Member of Data and Safety Monitoring Board
2022	NIH-funded Liver Cirrhosis Network (LCN)	Member of Data and Safety Monitoring Board
2021	NIH HEAL Data Ecosystem Collective Board	Member of NIH HEAL Data Ecosystem Collective Board

3. Professional Organizations (state and/or national)

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2003-2013	Institute of Mathematical Statistics	
2005-Present	American Statistical Association	
2006-2014	Eastern North American Region International Biometric Society	
2007-Present	Society for Clinical Trials	
2013-2019	American Society of Anesthesiologists	
2014-Present	American Pain Society	
2017-2019	Association of University Anesthesiologists (elected member)	

B. Other Professional Service

1. Referee Manuscripts/Journal Reviews

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2009-Present	Springer	Reviewer, Publications
2010-Present	Anesthesia and Analgesia	Assistant Statistical Editor
2010-Present	Contemporary Clinical Trials	Reviewer, Publications
2011-Present	Neurosurgery	Editorial Review Board Member, Biostatistics Section

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2011-Present	Statistics in Medicine	Reviewer, Publications
2012-Present	British Medical Journal	Reviewer, Publications
2012-Present	Anesthesiology	Reviewer, Publications
2013-Present	The Journal of Pain	Editorial Review Board Member
2015-Present	Clinical Journal of Pain	Reviewer, Publications
2015-Present	Acta Anaesthesiologica Scandinavica	Reviewer, Publications
2015-Present	PLoS ONE	Reviewer, Publications
2016-Present	Journal of Pain Research	Reviewer, Publications
2016-Present	BMC Anesthesiology	Reviewer, Publications
2017-Present	Pain Medicine	Reviewer, Publications
2018-Present	European Journal of Pain	Editorial Review Board Member
2019-Present	Injury	Reviewer, Publications

2. Organize Conference, Paper Session, etc.

<u>Year</u>	<u>Organization</u>	<u>Position</u>
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3. State Committees

<u>Year</u>	<u>Organization</u>	<u>Position</u>
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4. National Committees

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2019-2021	American Society of Anesthesiologists (ASA) Committee on Research	Adjunct Member

5. Professionally Relevant Community Involvement

<u>Year</u>	<u>Organization</u>	<u>Position</u>
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6. Professional Consulting

<u>Year</u>	<u>Organization</u>	<u>Position</u>
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7. Other

<u>Year</u>	<u>Organization</u>	<u>Position</u>
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C. Departmental, Collegiate or University Service

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2010-2019	University of Iowa, Department of Anesthesia, Research Review Committee	Member
2011-2019	Carver College of Medicine Admissions Committee	Interviewer
2012-Present	Carver College of Medicine and the College of Public Health Sciences Research Week	Poster Judge
2018-2020	Faculty Senate	Senator
2018-Present	University of Iowa, Carver College of Medicine, Department of Anesthesia, Department of Anesthesia Faculty Promotion and Tenure Committee	Reviewer, Promotion and Tenure
2019-Present	Biostatistics Admissions and Student Recruitment Committee	Member
2019-Present	Biostatistics Diversity, Equity, and Inclusion Committee	Member
2019-Present	Biostatistics Student Awards Committee	Member
2019-Present	University of Iowa Faculty Council	
2019-Present	Woolson Lecture Committee	Member
2020-2023	CPH Research Council	Member
2020	M.S. Core Exam Committee (Summer 2020)	Member
2020-Present	Ladies in UI Biostatistics	Organizer

<u>Year</u>	<u>Organization</u>	<u>Position</u>
2020-Present	M.S. Core Exam Committee (Summer 2021)	Member
2020-Present	M.S. Core Exam Committee (Winter 2021)	Member
2020-2021	Promotion and Tenure Internal Peer Evaluation Committee #2	Member
2021-Present	CPH Alumni Task Force	Member
2021-2022	Faculty Search Committee	Member
2021-2022	Promotion and Tenure Internal Peer Evaluation Committee #1	Member
2021-Present	Search Committee for Associate Dean for Research	Member