

---

**TATSUKI KOYAMA**

---

Office Address     Division of Cancer Biostatistics  
                         Department of Biostatistics  
                         Vanderbilt University Medical Center  
                         2525 West End Ave. Suite #1020, Nashville, TN 37203

Office Phone Number     615.936.1232  
                         Email     tatsuki.koyama@vumc.org

---

**EDUCATION**

---

1998     Bachelor of Arts in Statistics  
                         University of California at Berkeley, Berkeley, CA

2000     Master of Arts in Statistics  
                         University of Pittsburgh, Pittsburgh, PA

2003     Doctor of Philosophy in Statistics  
                         University of Pittsburgh, Pittsburgh, PA

**Doctoral Dissertation**

Title     A framework for design of two-stage adaptive procedures  
Advisors     Allan R. Sampson, Ph.D. (co-chair), Leon J. Gleser, Ph.D. (co-chair)

---

**ACADEMIC APPOINTMENTS**

---

2003 - 2011     Assistant Professor

2011 - 2013     Research Associate Professor

2013 - present     Associate Professor  
                         Department of Biostatistics, Vanderbilt University School of Medicine  
                         Cancer Biostatistics Center, Vanderbilt-Ingram Cancer Center (-2011.06)  
                         Vanderbilt Center for Quantitative Sciences (2011.07-)

---

**PROFESSIONAL ORGANIZATIONS**

---

1998 - present     American Statistical Association  
                         Middle Tennessee Chapter  
                         Chapter representative (2005-2006), Treasurer (2006-2021)

2003 - present     The International Biometric Society

2006 - 2013     The Biometric Society of Japan

## PROFESSIONAL ACTIVITIES

---

### A. Study Section Review

- 2008 NIH Study Section Review Panel. "Tumor stem cells in cancer biology, prevention, and therapy (P01)"
- 2009 NIH Study Section Review Panel. "Measures and determinants of smokeless tobacco use, prevention, and cessation (R01)"
- 2010 NIH Study Section Review Panel. "Drug discovery, chemoprevention, and targeted therapy (P01)"
- 2013 Cancer Research Program Review Panel. The Department of Defense Congressionally Directed Medical Research Programs.
- 2015 Florida Department of Health Biomedical Research Programs Review Panel.
- 2015 Focused Program Review Panel. The Department of Defense Congressionally Directed Medical Research Programs.
- 2016 ASCO Grants Selection Committee Young Investigators Award Review Panel.
- 2016 Cancer Research Program Review Panels. The Department of Defense Congressionally Directed Medical Research Programs.
- 2017 ASCO Grants Selection Committee. Career Development Award Review Panel.
- 2017 Focused Program Awards Review Panels. The Department of Defense Congressionally Directed Medical Research Programs.
- 2018 ASCO Grants Selection Committee. Career Development Award Review Panel.
- 2018 Florida Department of Health Biomedical Research Programs Review Panel.
- 2019 Cancer Research Program. The Department of Defense Congressionally Directed Medical Research Programs.
- 2020 Cancer Research Program Review Panel. The Department of Defense Congressionally Directed Medical Research Programs.

### B. Journal Review

PLOS ONE (Statistical Advisory Board)  
The Journal of Urology (Board of Statisticians)  
Japanese Journal of Statistics and Data Science (Associate Editor)  
Science: Translational Medicine  
JAMA Oncology  
Nature Communications  
Statistics in Medicine  
Cancer  
Cancers  
Cancer Prevention Research  
Clinical Cancer Research  
Journal of Clinical Oncology

PLOS Medicine  
 American Statistician  
 Biometrical Journal  
 Bioinformatics  
 Journal of Applied Statistics  
 Journal of Biopharmaceutical Statistics  
 Journal of Statistical Computation and Simulation  
 Journal of Statistical Planning and Inference  
 Kidney International  
 Journal of Nuclear Medicine  
 International Journal of Environmental Research and Public Health  
 Expert Opinion on Drug Safety  
 Environmental Research and Public Health  
 Journal of Biological Chemistry  
 Kidney Research and Clinical Practice

#### C. Awards and Honors

1996	Phi Theta Kappa
1996	Dean's List, University of California at Berkeley
1998	W. Homan Scholarship, University of California at Berkeley
2001	Best Teaching Assistant Award, Department of Statistics, University of Pittsburgh
2002	Best Senior Graduate Student Award, Department of Statistics, University of Pittsburgh
2002 - 2003	Andrew Mellon Pre-doctoral Fellowship, University of Pittsburgh
2003	Outstanding Graduate Student Award, American Statistical Association, Pittsburgh Chapter
2014, 2017	The Patrick G. Arbogast Collaborative Publication Award, Department of Biostatistics, Vanderbilt University School of Medicine

#### D. Intramural Services

##### University of Pittsburgh

2000	Statistics Computer Lab Coordinator
2000 - 2002	Statistical Consultant, Center for Statistics

##### Vanderbilt University Medical Center

2003 - present	Director of Biostatistics Core, Vanderbilt Digestive Disease Research Center
2003 - 2017	Member, Ph.D. Search Committee, Department of Biostatistics
2007	Reviewer, Vanderbilt Committee for Internal Pre-review of Grant Application
2009 - present	Reviewer, Scientific Review Committee, Vanderbilt-Ingram Cancer Center

2009 - 2017	Organizer, Cancer Biostatistics Workshop [2009-2011], Center for Quantitative Sciences Workshop [2011 - 2017]
2010 - 2011	Co-chair, Adaptive Clinical Trials Working Group, Center for Quantitative Sciences / Cancer Biostatistics Center
2011 - present	Executive committee member, Center for Qualitative Sciences.
2014 - present	Member, Graduate Student Admission Committee, Department of Biostatistics
2017 - present	Member, Limited Submission Opportunity Review Committee, VUMC
2018 - present	Member, Resource Allocation Committee, Department of Biostatistics
2018 - 2021	Member, Staff Promotion Committee, Department of Biostatistics
2019 - present	Member, Faculty Search Committee, Department of Biostatistics

## TEACHING ACTIVITIES

---

### A. Teaching Positions

1998 - 2002	Teaching Fellow / Teaching Assistant, Department of Statistics, University of Pittsburgh
2000	Lecturer, Department of Statistics, University of Pittsburgh
2009 - 2017	Organizer, Cancer Biostatistics Workshop, Cancer Biostatistics Center, Vanderbilt-Ingram Cancer Center; CQS Workshop, Center for Quantitative Sciences, Vanderbilt University School of Medicine.

### B. Graduate Course

2012 - 2020	BIOS 6321: Clinical Trials and Experimental Designs (3 credits). Developed the course.
2020 - present	PUBH 5502: Biostatistics I (MPH program, 3 credits). Substantially updated the course materials.

### C. Extramural Lectures

#### Tutorial session

1. Adaptive and flexible designs in clinical trials. *The 2006 Japanese Joint Statistical Meetings*. Sendai, Japan. September 5, 2006 (3 hour tutorial).

#### Short courses

2. Adaptive and flexible designs in clinical trials. *Japan Clinical Research Division*, Lilly Research Laboratories Japan. Kobe, Japan. March 1, 2007 (2 hour course).
3. Adaptive designs in clinical trials. *Biostatistics Summer School*. Osaka University (Biostatistics and Epidemiology), Osaka, Japan. July 9-10, 2007 (9 hour course).
4. Advanced clinical trials in the US. *Biostatistics Executive Seminar 2011*. Statcom Co. Ltd., Tokyo, Japan. June 20, 2011 (2 hour course).
5. Frequentist adaptive design for phase II and III clinical trials. *Shionogi Research Seminar*. Shionogi & Co. Ltd., Osaka, Japan. August 24, 2012 (2 hour course).

6. Clinical trials. *Special Summer Course*. Osaka University (Biostatistics and Epidemiology), Osaka, Japan. July 6-10, 2015 (20 hour course).
7. Phase III clinical trials. *Medical Statistics*. Osaka University (Biostatistics and Epidemiology), Osaka, Japan. July 19-22, 2016 (9 hour course).
8. Selected topics in phase II and III clinical trials. Osaka City University (Medical Statistics), Osaka, Japan. (9 hour course)  
July 18-20, 2017  
August 16-17, 2018  
July 8-10, 2019  
January 11-14, 2021  
November 9-17, 2021

#### Invited lectures

9. Meta analysis, interim analysis and data safety monitoring boards. *Clinical Trials and Research*, Masters of Science in Clinical Investigation (MSCI) program, Meharry Medical College, Nashville, TN. November 9 and 23, 2010 (2.5 hour course).
10. Randomization in clinical trials. *Nashville Chapter, Society of Clinical Research Associates*. October 24, 2013.
11. Study design and power calculations. *Mouse Kidney Injury Workshop*. Vanderbilt University O'Brien Kidney Center. August 8, 2022.

#### D. Intramural Lectures

##### Short Courses

1. Biostatistics I. *Center for Quantitative Sciences Summer Institute*. Center for Quantitative Sciences. August 3-7, 2015; August 1-5, 2016; August 7-11, 2017; August 9-13, 2021. (15 hour lecture)

##### Invited Lectures

2. Introduction to statistics in R. *Seminar Series in Biostatistics*. Department of Biostatistics. 2004.
3. Probabilities and statistics in medicine. *Guest lecturer for Department of Preventive Medicines' required course*. 2004–2007.
4. Power and sample size: A practical point of view. *Guest lecture for MSCI course, Biostatistics I*. 2004.
5. Tools for formal statistical inference. *Statistical Thinking in Biomedical Research*. Department of Biostatistics. 2004.
6. How to reduce sample size and control type I error rate by implementing two-stage designs. *GCRC Research Skills Workshop Series*. January, 2005.

7. Problems with using Excel for statistics. *GCRC Research Skills Workshop Series*. May, 2005.
8. Statistical methods in biomarker discovery. *Clinical Proteomics*. Vanderbilt University School of Medicine. 2008–2009.
9. Adaptive phase II clinical trials: Rigorous statistics and flexible science. *2008 Cancer Biostatistics Workshop*. Cancer Biostatistics Center. April, 2008.
10. Statistical methods in biomarker discovery. *2009 Cancer Biostatistics Workshop*. Cancer Biostatistics Center. April, 2009.
11. Technical aspects of interim monitoring in clinical trials. *GCRC Research Skills Workshop Series*. July, 2009.
12. Principles of presenting data: A statistical point of view. *Guest lecture for a freshman seminar in the College of Engineering, "Visual Display of Quantitative Information"*. November, 2009.
13. Some aspects of statistical methods for biomarker discovery. *Continuing Education for Masters Biostatisticians*. Department of Biostatistics. December, 2009.
14. Statistical methods for biomarker discovery. *Statistics and Methodology Core Training Seminar*. Vanderbilt Kennedy Center. January, 2010.
15. Interim monitoring in clinical trials. *GCRC Research Skills Workshop Series*. September, 2010.
16. Topics in probability and statistics. *Guest lecture for a freshman course in School for Science and Math at Vanderbilt*. September, 2010.
17. Rigorous statistics for simple experiments: Basic science from a statistician's point of view. *The Vanderbilt Digestive Disease Research Center Seminar Series*. September, 2010.
18. Clinical trial series, session II: Randomization. *GCRC Research Skills Workshop Series*. November, 2011.
19. Clinical trial series, session III: Interim analysis. *GCRC Research Skills Workshop Series*. December, 2011.
20. Randomization. *GCRC Research Skills Workshop Series*. August, 2012.
21. Flexible clinical trials. *GCRC Research Skills Workshop Series*. May, 2013.
22. Phase I clinical trials. *GCRC Research Skills Workshop Series*. November, 2013.
23. Randomization. *GCRC Research Skills Workshop Series*. November, 2013.
24. Clinical trials. *Introduction to Clinical and Translational Research*. January, 2015. (2 one-hour lectures)
25. Problems with using Excel for statistics. *GCRC Research Skills Workshop Series*. April, 2015.
26. Analytic challenges of pragmatic trials. *Two-hour lecture for V-POCKET seminar series*. February, 2015.

27. Phase I clinical trials. *GCRC Research Skills Workshop Series*. August, 2015.
28. Statistics for basic sciences. *DDRC Career Development Workshop*. 2015, 2016, 2018, 2020.
29. Statistics 101. *Radiation Oncology Research Group*. June, 2016.
30. Topics in regression analysis *GCRC Research Skills Workshop Series*. March, 2017
31. Phase I clinical trials. *Clinical Pharmacology Teaching Conferences*. April, 2017
32. Multiplicity in clinical trials. *GCRC Research Skills Workshop Series*. September, 2018
33. Phase II and III clinical trials. *Clinical Pharmacology Fellow Lecture*. January, 2020
34. Topics in regression analysis *GCRC Research Skills Workshop Series*. May, 2020
35. Topics in regression analysis: interaction vs subgroups; baseline adjustment vs difference. *VD-DRC Academy of Investigators Workshop*. November, 2020
36. Dose-finding clinical trials in cancer. 3+3 and beyond (but not much). *Vanderbilt Center for Health Services Research Biostatistics Seminar*. November, 2020
37. Regression analysis: Interactions and subgroups and other topics. *Clinical Pharmacology Fellow Lecture*. April, 2021
38. Topics in regression analysis *GCRC Research Skills Workshop Series*. October, 2021
39. Randomization / Multiplicity control *Clinical Pharmacology Fellow Lecture*. November, 2021
40. Phase II clinical trials / Survival analysis *Journal club for Hematology/Oncology Fellows*. November, 2021.

#### **E. Research Supervision**

Department of Biostatistics, Vanderbilt University School of Medicine.

Mingsheng Guo, PhD. Bioinformatician I.

Sharon Phillips, MSPH. Assistant in Biostatistics.

Elizabeth Koehler, MS. Biostatistician III.

Pengcheng Lu, MS. Biostatistician III.

Zhiguo Zhao, MS. Biostatistician IV.

JoAnn Alvarez, MS. Biostatistician III.

Kang-Hsien Fan, MS. Biostatistician III.

Lan Cui, MS. Research Assistant I.

Liping Du, PhD. Bioinformatician III.

Li-Ching Huang, PhD. Staff Scientist.

Julius Kirui, MS. Intern.

Rachel J Baldwin, MS. Intern.

Corey J Horton, MS. Intern.  
Huang Yi, MS. Biostatistician II.  
Yufan Chen, MS. Biostatistician II.  
Lili Sun, PhD. Biostatistician II.  
Kevin Zhang, MS. Biostatistician II.  
Aaron Lee, MS. Biostatistician II.

#### F. Graduate Students

Department of Biostatistics, Vanderbilt University School of Medicine.

Emily N Peterson. MS thesis “Assessment of propensity score performance in small samples”. (August 2015)  
Molly A Olson. MS thesis “A comparison of approaches for unplanned sample size changes in phase II clinical trials”. (May 2017)  
Alese Halvorson. MS thesis “A statistical critique of normalization methods in basic science research”. (December 2019)  
Justin Jacobs. MS thesis. (2022)

## PUBLICATIONS AND PRESENTATIONS

---

#### A. Peer Reviewed Publication

1. Ameka MK, Beavers WN, Shaver CM, Ware LB, Kerchberger VE, Schoenfelt KQ, Sun L, **Koyama T**, Skaar EP, Becker L, and Hasty AH. An iron refractory phenotype in obese adipose tissue macrophages leads to adipocyte iron overload. *Int J Mol Sci*, 23(13), 2022. PMID: 35806422. PMCID: PMC9267114.
2. Sui W, Miller NL, Gould ER, Zhang KC, **Koyama T**, and Hsi RS. Proton pump inhibitors use and risk of incident nephrolithiasis. *Urolithiasis*, 50(4):401–409, 2022. PMID: 35499617.
3. Takahashi K, Yamamoto K, Kuchiba A, and **Koyama T**. Confidence interval for micro-averaged  $F_1$  and macro-averaged  $F_1$  scores. *Appl Intell (Dordr)*, 52(5):4961–4972, 2022. PMID: 35317080. PMCID: PMC8936911.
4. Baum LV, **Koyama T**, Schremp EA, Zhang K, Rodweller CA, Roth MC, Compas BE, and Friedman DL. Posttraumatic stress symptoms and financial toxicity among adolescent and young adult oncology patients and their caregivers at cancer diagnosis. *Cancer*, 128(10):2005–2014, 2022. PMID: 35226364.
5. Tallman JE, Wallis CJD, Huang LC, Zhao Z, Penson DF, **Koyama T**, Conwill R, Goodman M, Hamilton AS, Wu XC, Paddock LE, Stroup A, Cooperberg MR, Hashibe M, O’Neil BB, Kaplan SH, Greenfield S, Barocas DA, and Hoffman KE. Association between adherence to radiation therapy quality metrics and patient reported outcomes in prostate cancer. *Prostate Cancer Prostatic Dis*, 2022. PMID: 35217831.



6. Luckenbaugh AN, Wallis CJD, Huang LC, Wittmann D, Klaassen Z, Zhao Z, **Koyama T**, Laviana AA, Conwill R, Goodman M, Hamilton AS, Wu XC, Paddock LE, Stroup A, Cooperberg MR, Hashibe M, O'Neil BB, Kaplan SH, Greenfield S, Hoffman KE, Penson DF, and Barocas DA. Association between treatment for localized prostate cancer and mental health outcomes. *J Urol*, 207(5):1029–1037, 2022. PMID: 34978488.
7. Hiremath G, Sun L, Correa H, Acra S, Collins MH, Bonis P, Arva NC, Capocelli KE, Falk GW, King E, Gonsalves N, Gupta SK, Hirano I, Mukkada VA, Martin LJ, Putnam PE, Spergel JM, Wechsler JB, Yang GY, Aceves SS, Furuta GT, Rothenberg ME, **Koyama T**, and Dellon ES. Development and validation of web-based tool to predict lamina propria fibrosis in eosinophilic esophagitis. *Am J Gastroenterol*, 117(2):272–279, 2022. PMID: 34932022. PMCID: PMC8858426.
8. Wallis CJD, Zhao Z, Huang LC, Penson DF, **Koyama T**, Kaplan SH, Greenfield S, Luckenbaugh AN, Klaassen Z, Conwill R, Goodman M, Hamilton AS, Wu XC, Paddock LE, Stroup A, Cooperberg MR, Hashibe M, O'Neil BB, Hoffman KE, and Barocas DA. Association of treatment modality, functional outcomes, and baseline characteristics with treatment-related regret among men with localized prostate cancer. *JAMA Oncol*, 8(1):50–59, 2022. PMID: 34792527. PMCID: PMC8603232.
9. Wallis CJD, Huang LC, Zhao Z, Penson DF, **Koyama T**, Conwill R, Tallman JE, Goodman M, Hamilton AS, Wu XC, Paddock LE, Stroup A, Cooperberg MR, Hashibe M, O'Neil BB, Kaplan SH, Greenfield S, Barocas DA, and Hoffman KE. Association between pelvic nodal radiotherapy and patient-reported functional outcomes through 5 years among men undergoing external-beam radiotherapy for prostate cancer: An assessment of the comparative effectiveness analysis of surgery and radiation (CEASAR) cohort. *Urol Oncol*, 40(2):56.e1–56.e8, 2022. PMID: 34154899.
10. Joyce DD, Wallis CJD, Luckenbaugh AN, Huelster HL, Zhao Z, Hoffman KE, Huang LC, **Koyama T**, Conwill R, Goodman M, Hamilton AS, Wu XC, Paddock LE, Stroup A, Cooperberg MR, Hashibe M, Neil BBO, Kaplan SH, Greenfield S, Penson DF, and Barocas DA. Sexual function outcomes of radiation and androgen deprivation therapy for localized prostate cancer in men with good baseline function. *Prostate Cancer Prostatic Dis*, 25(2):238–247, 2022. PMID: 34108648.
11. Pal T, Hull PC, **Koyama T**, Lammers P, Martinez D, McArthy J, Schremp E, Tezak A, Washburn A, Whisenant JG, and Friedman DL. Enhancing cancer care of rural dwellers through telehealth and engagement (encore): Protocol to evaluate effectiveness of a multi-level telehealth-based intervention to improve rural cancer care delivery. *BMC Cancer*, 21(1):1262, 2021. PMID: 34814868. PMCID: PMC8609269.
12. Cheng AC, Wen L, Li Y, **Koyama T**, Berry LD, Pal T, Friedman DL, and Osterman TJ. Follow-up interactive long-term expert ranking (filter): A crowdsourcing platform to adjudicate risk for survivorship care. *JAMIA Open*, 4(4), 2021. PMID: 34755049. PMCID: PMC8571913.
13. Daniels AB, Froehler MT, Kaczmarek JV, Bogan CM, Santapuram PR, Pierce JM, Chen SC, Schremp EA, Boyd KL, Tao YK, Calcutt MW, **Koyama T**, Richmond A, and Friedman DL. Efficacy, toxicity, and pharmacokinetics of intra-arterial chemotherapy versus intravenous chemotherapy for retinoblastoma in animal models and patients. *Transl Vis Sci Technol*, 10(11):10, 2021. PMID: 34495330. PMCID: PMC8431978.

14. Harvey ML, Lin AS, Sun L, **Koyama T**, Shuman JHB, Loh JT, Algood HMS, Scholz MB, McClain MS, and Cover TL. Enhanced fitness of a helicobacter pylori baba mutant in a murine model. *Infect Immun*, 89(10):e0072520, 2021. PMID: 34310886. PMCID: PMC8445181.
15. Kerchberger VE, Brown RM, Semler MW, Zhao Z, **Koyama T**, Janz DR, Bastarache JA, and Ware LB. Impact of clinician recognition of acute respiratory distress syndrome on evidenced-based interventions in the medical icu. *Crit Care Explor*, 3(7):e0457, 2021. PMID: 34250497. PMCID: PMC8263322.
16. Daniels AB, Patel SN, Milam RW, Kohanim S, Friedman DL, and **Koyama T**. Effect of intravenous chemotherapy regimen on globe salvage success rates for retinoblastoma based on disease class-a meta-analysis. *Cancers (Basel)*, 13(9), 2021. PMID: 34066325. PMCID: PMC8125212.
17. Pasalic D, Barocas DA, Huang LC, Zhao Z, **Koyama T**, Tang C, Conwill R, Goodman M, Hamilton AS, Wu XC, Paddock LE, Stroup AM, Cooperberg MR, Hashibe M, O'Neil BB, Kaplan SH, Greenfield S, Penson DF, and Hoffman KE. Five-year outcomes from a prospective comparative effectiveness study evaluating external-beam radiotherapy with or without low-dose-rate brachytherapy boost for localized prostate cancer. *Cancer*, 127(11):1912–1925, 2021. PMID: 33595853.
18. Stone BV, Laviana AA, Luckenbaugh AN, Huang LC, Zhao Z, **Koyama T**, Conwill R, Hoffman K, Joyce DD, Goodman M, Hamilton AS, Wu XC, Paddock LE, Stroup A, Cooperberg MR, Hashibe M, O'Neil BB, Kaplan SH, Greenfield S, Penson DF, and Barocas DA. Patient-reported financial toxicity associated with contemporary treatment for localized prostate cancer. *J Urol*, 205(3):761–768, 2021. PMID: 33252300.
19. Santapuram PR, Schremp EA, Friedman DL, **Koyama T**, Froehler MT, and Daniels AB. Adverse events, treatment burden, and outcomes of intravenous versus intra-arterial chemotherapy for retinoblastoma. *Ophthalmol Retina*, 5(3):309–312, 2021. PMID: 32920208.
20. Huelster HL, Laviana AA, Joyce DD, Huang LC, Zhao Z, **Koyama T**, Hoffman KE, Conwill R, Goodman M, Hamilton AS, Wu XC, Paddock LE, Stroup A, Cooperberg M, Hashibe M, O'Neil BB, Kaplan SH, Greenfield S, Penson DF, and Barocas DA. Radiotherapy after radical prostatectomy: Effect of timing of postprostatectomy radiation on functional outcomes. *Urol Oncol*, 38(12):930.e23–930.e32, 2020. PMID: 32736934. PMCID: PMC8095316.
21. Reisz PA, Laviana AA, Zhao Z, Huang LC, **Koyama T**, Conwill R, Hoffman K, Goodman M, Hamilton AS, Wu XC, Paddock LE, Stroup A, Cooperberg MR, Hashibe M, O'Neil BB, Kaplan SH, Greenfield S, Penson DF, and Barocas DA. Assessing the quality of surgical care for clinically localized prostate cancer: Results from the CEASAR study. *J Urol*, 204(6):1236–1241, 2020. PMID: 32568605.
22. Coronado RA, Ehde DM, Pennings JS, Vanston SW, **Koyama T**, Phillips SE, Mathis SL, McGirt MJ, Spengler DM, Aaronson OS, Cheng JS, Devin CJ, Wegener ST, and Archer KR. Psychosocial mechanisms of cognitive-behavioral-based physical therapy outcomes after spine surgery: Preliminary findings from mediation analyses. *Phys Ther*, 100(10):1793–1804, 2020. PMID: 32556249. PMCID: PMC7530577.

23. Vickers AJ, Assel MJ, Sjoberg DD, Qin R, Zhao Z, **Koyama T**, Botchway A, Wang X, Huo D, Kattan M, Zabor EC, and Harrell F. Guidelines for reporting of figures and tables for clinical research in urology. *BJU Int*, 126(1):14–25, 2020. PMID: 32542947.
24. Vickers AJ, Assel MJ, Sjoberg DD, Qin R, Zhao Z, **Koyama T**, Botchway A, Wang X, Huo D, Kattan M, Zabor EC, and Harrell F. Guidelines for reporting of figures and tables for clinical research in urology. *Eur Urol*, 78(1):97–109, 2020. PMID: 32451178.
25. Vickers AJ, Assel MJ, Sjoberg DD, Qin R, Zhao Z, **Koyama T**, Botchway A, Wang X, Huo D, Kattan M, Zabor EC, and Harrell F. Guidelines for reporting of figures and tables for clinical research in urology. *Urology*, 142:1–13, 2020. PMID: 32446805. PMCID: PMC7387170.
26. Vickers AJ, Assel MJ, Sjoberg DD, Qin R, Zhao Z, **Koyama T**, Botchway A, Wang X, Huo D, Kattan M, Zabor EC, and Harrell F. Guidelines for reporting of figures and tables for clinical research in urology. *J Urol*, 204(1):121–133, 2020. PMID: 32441187.
27. Wang C, Wolters PJ, Calfee CS, Liu S, Balmes JR, Zhao Z, **Koyama T**, and Ware LB. Long-term ozone exposure is positively associated with telomere length in critically ill patients. *Environ Int*, 141:105780, 2020. PMID: 32417614. PMCID: PMC7535086.
28. Laviana AA, Zhao Z, Huang LC, **Koyama T**, Conwill R, Hoffman K, Goodman M, Hamilton AS, Wu XC, Paddock LE, Stroup A, Cooperberg MR, Hashibe M, O’Neil BB, Kaplan SH, Greenfield S, Penson DF, and Barocas DA. Development and internal validation of a web-based tool to predict sexual, urinary, and bowel function longitudinally after radiation therapy, surgery, or observation. *Eur Urol*, 78(2):248–255, 2020. PMID: 32098731. PMCID: PMC7384934.
29. Hoffman KE, Penson DF, Zhao Z, Huang LC, Conwill R, Laviana AA, Joyce DD, Luckenbaugh AN, Goodman M, Hamilton AS, Wu XC, Paddock LE, Stroup A, Cooperberg MR, Hashibe M, O’Neil BB, Kaplan SH, Greenfield S, **Koyama T**, and Barocas DA. Patient-reported outcomes through 5 years for active surveillance, surgery, brachytherapy, or external beam radiation with or without androgen deprivation therapy for localized prostate cancer. *JAMA*, 323(2):149–163, 2020. PMID: 31935027. PMCID: PMC6990712.
30. Kerchberger VE, Huang Y, **Koyama T**, Shoemaker MB, Darbar D, Bastarache JA, Ware LB, and Shaver CM. Clinical and genetic contributors to new-onset atrial fibrillation in critically ill adults. *Crit Care Med*, 48(1):22–30, 2020. PMID: 31599812. PMCID: PMC6910934.
31. Das S, Shi C, **Koyama T**, Huang Y, Gonzalez R, Idrees K, Bailey CE, and Berlin J. Peritoneal carcinomatosis in well-differentiated small-intestinal neuroendocrine tumors with mesenteric tumor deposits. *J Med Surg Pathol*, 4(1):1–10, 2019. PMID: 32322781. PMCID: PMC7175957.
32. Cunningham-Erves J, **Koyama T**, Huang Y, Jones J, Wilkins CH, Harnack L, McAfee C, and Hull PC. Providers’ perceptions of parental human papillomavirus vaccine hesitancy: Cross-sectional study. *JMIR Cancer*, 5(2):e13832, 2019. PMID: 31267976. PMCID: PMC6632100.
33. Laviana AA, Hernandez A, Huang LC, Zhao Z, **Koyama T**, Conwill R, Hoffman K, Feuerer ID, Goodman M, Hamilton AS, Wu XC, Paddock LE, Stroup A, Cooperberg MR, Hashibe M, O’Neil BB, Kaplan SH, Greenfield S, Penson DF, and Barocas DA. Interpretation of domain scores on the

- EPIC-how does the domain score translate into functional outcomes. *J Urol*, 202(6):1150–1158, 2019. PMID: 31216252. PMCID: PMC8627681.
34. Dallmer JR, Robles J, Wile GE, **Koyama T**, and Barocas DA. The harms of hematuria evaluation: Modeling the risk-benefit of using split bolus computerized tomography urography to reduce radiation exposure in a theoretical cohort. *J Urol*, 202(5):899–904, 2019. PMID: 31188730.
  35. Duffy C, Hall L, Godown J, **Koyama T**, and Borinstein SC. Steroid-induced bradycardia during induction chemotherapy in children and young adults diagnosed with acute lymphoblastic leukemia and lymphoblastic lymphoma. *J Pediatr Hematol Oncol*, 41(7):537–541, 2019. PMID: 30994505.
  36. Fowke JH, **Koyama T**, Dai Q, Zheng SL, Xu J, Howard LE, and Freedland SJ. Blood and dietary magnesium levels are not linked with lower prostate cancer risk in black or white men. *Cancer Lett*, 449:99–105, 2019. PMID: 30776477. PMCID: PMC6954048.
  37. Assel M, Sjoberg D, Elders A, Wang X, Huo D, Botchway A, Delfino K, Fan Y, Zhao Z, **Koyama T**, Hollenbeck B, Qin R, Zahnd W, Zabor EC, Kattan MW, and Vickers AJ. Guidelines for reporting of statistics for clinical research in urology. *J Urol*, 201(3):595–604, 2019. PMID: 30633111. PMCID: PMC6600813.
  38. Maseda D, Zackular JP, Trindade B, Kirk L, Roxas JL, Rogers LM, Washington MK, Du L, **Koyama T**, Viswanathan VK, Vedantam G, Schloss PD, Crofford LJ, Skaar EP, and Aronoff DM. Nonsteroidal anti-inflammatory drugs alter the microbiota and exacerbate clostridium difficile colitis while dysregulating the inflammatory response. *mBio*, 10(1), 2019. PMID: 30622186. PMCID: PMC6325247.
  39. Assel M, Sjoberg D, Elders A, Wang X, Huo D, Botchway A, Delfino K, Fan Y, Zhao Z, **Koyama T**, Hollenbeck B, Qin R, Zahnd W, Zabor EC, Kattan MW, and Vickers AJ. Guidelines for reporting of statistics for clinical research in urology. *Eur Urol*, 75(3):358–367, 2019. PMID: 30580902. PMCID: PMC6391870.
  40. Assel M, Sjoberg D, Elders A, Wang X, Huo D, Botchway A, Delfino K, Fan Y, Zhao Z, **Koyama T**, Hollenbeck B, Qin R, Zahnd W, Zabor EC, Kattan MW, and Vickers AJ. Guidelines for reporting of statistics for clinical research in urology. *BJU Int*, 123(3):401–410, 2019. PMID: 30537407. PMCID: PMC6397060.
  41. de la Fuente J, Dhedin N, **Koyama T**, Bernaudin F, Kuentz M, Karnik L, Socie G, Culos KA, Brodsky RA, DeBaun MR, and Kassim AA. Haploidentical bone marrow transplantation with post-transplantation cyclophosphamide plus thiotepa improves donor engraftment in patients with sickle cell anemia: Results of an international learning collaborative. *Biol Blood Marrow Transplant*, 25(6):1197–1209, 2019. PMID: 30500440.
  42. Goff LW, Azad NS, Stein S, Whisenant JG, **Koyama T**, Vaishampayan U, Hochster H, Connolly R, Weise A, LoRusso PM, Salaria SN, El-Rifai W, and Berlin JD. Phase I study combining the Aurora Kinase A inhibitor alisertib with mFOLFOX in gastrointestinal cancer. *Invest New Drugs*, 37(2):315–322, 2019. PMID: 30191522. PMCID: PMC6401337.

43. Reilly JP, Zhao Z, Shashaty MGS, **Koyama T**, Christie JD, Lanken PN, Wang C, Balmes JR, Matthay MA, Calfee CS, and Ware LB. Low to moderate air pollutant exposure and acute respiratory distress syndrome after severe trauma. *Am J Respir Crit Care Med*, 199(1):62–70, 2019. PMID: 30067389. PMCID: PMC6353017.
44. Lee DJ, Barocas DA, Zhao Z, Huang LC, **Koyama T**, Resnick MJ, Conwill R, McCollum D, Cooperberg MR, Goodman M, Greenfield S, Hamilton AS, Hashibe M, Kaplan SH, Paddock LE, Stroup AM, Wu XC, Penson DF, and Hoffman KE. Contemporary prostate cancer radiation therapy in the United States: patterns of care and compliance with quality measures. *Pract Radiat Oncol*, 8(5):307–316, 2018. PMID: 30177030. PMCID: PMC7492101.
45. Lee DJ, Barocas DA, Zhao Z, Huang LC, Resnick MJ, **Koyama T**, Conwill R, McCollum D, Cooperberg MR, Goodman M, Greenfield S, Hamilton AS, Hashibe M, Kaplan SH, Paddock LE, Stroup AM, Wu XC, Penson DF, and Hoffman KE. Comparison of patient-reported outcomes after external beam radiation therapy and combined external beam with low-dose-rate brachytherapy boost in men with localized prostate cancer. *Int J Radiat Oncol Biol Phys*, 102(1):116–126, 2018. PMID: 30102188. PMCID: PMC7492102.
46. Lee DJ, Zhao Z, Huang LC, **Koyama T**, Resnick MJ, Penson DF, Barocas DA, and Hoffman KE. Racial variation in receipt of quality radiation therapy for prostate cancer. *Cancer Causes Control*, 29(10):895–899, 2018. PMID: 30099628.
47. Warren MA, Zhao Z, **Koyama T**, Bastarache JA, Shaver CM, Semler MW, Rice TW, Matthay MA, Calfee CS, and Ware LB. Severity scoring of lung edema on the chest radiograph is associated with clinical outcomes in ARDS. *Thorax*, 73(9):840–846, 2018. PMID: 29903755. PMCID: PMC6410734.
48. Scoville EA, Allaman MM, Brown CT, Motley AK, Horst SN, Williams CS, **Koyama T**, Zhao Z, Adams DW, Beaulieu DB, Schwartz DA, Wilson KT, and Coburn LA. Alterations in lipid, amino acid, and energy metabolism distinguish Crohn's disease from ulcerative colitis and control subjects by serum metabolomic profiling. *Metabolomics*, 14(1):17, 2018. PMID: 29681789. PMCID: PMC5907923.
49. Tyson MD 2nd, **Koyama T**, Lee D, Hoffman KE, Resnick MJ, Wu XC, Cooperberg MR, Goodman M, Greenfield S, Hamilton AS, Hashibe M, Paddock LE, Stroup A, Chen V, Conwill R, McCollum D, Penson DF, and Barocas DA. Effect of prostate cancer severity on functional outcomes after localized treatment: Comparative effectiveness analysis of surgery and radiation study results. *Eur Urol*, 74(1):26–33, 2018. PMID: 29501451. PMCID: PMC7643873.
50. McAlister RK, Aston J, Pollack M, Du L, **Koyama T**, and Chism DD. Effect of concomitant phosphate-elevating medications with pazopanib on progression-free survival and overall survival in patients with metastatic renal cell carcinoma. *Oncologist*, 23(6):686–692, 2018. PMID: 29487220. PMCID: PMC6067930.
51. Avulova S, Zhao Z, Lee D, Huang LC, **Koyama T**, Hoffman KE, Conwill RM, Wu XC, Chen V, Cooperberg MR, Goodman M, Greenfield S, Hamilton AS, Hashibe M, Paddock LE, Stroup A, Resnick MJ, Penson DF, and Barocas DA. The effect of nerve sparing status on sexual and

- urinary function: 3-year results from the CEASAR study. *J Urol*, 199(5):1202–1209, 2018. PMID: 29253578.
52. Tyagi P, Motley SS, **Koyama T**, Kashyap M, Gingrich J, Yoshimura N, and Fowke JH. Molecular correlates in urine for the obesity and prostatic inflammation of BPH/LUTS patients. *Prostate*, 78(1):17–24, 2018. PMID: 29080225. PMCID: PMC5716834.
  53. Hull PC, Buchowski M, Canedo JR, Beech BM, Du L, **Koyama T**, and Zoorob R. Childhood obesity prevention cluster randomized trial for hispanic families: Outcomes of the Healthy Families Study. *Pediatr Obes*, 13(11):686–696, 2018. PMID: 27884047. PMCID: PMC5443700.
  54. Ware LB, Zhao Z, **Koyama T**, Brown RM, Semler MW, Janz DR, May AK, Fremont RD, Matthay MA, Cohen MJ, and Calfee CS. Derivation and validation of a two-biomarker panel for diagnosis of ARDS in patients with severe traumatic injuries. *Trauma Surg Acute Care Open*, 2(1):e000121, 2017. PMID: 29766112. PMCID: PMC5887582.
  55. Abana CO, Bingham BS, Cho JH, Graves AJ, **Koyama T**, Pilarski RT, Chakravarthy AB, and Xia F. IL-6 variant is associated with metastasis in breast cancer patients. *PLoS One*, 12(7):e0181725, 2017. PMID: 28732081. PMCID: PMC5521838.
  56. Ark JT, Alvarez JR, **Koyama T**, Bassett JC, Blot WJ, Mumma MT, Resnick MJ, You C, Penson DF, and Barocas DA. Variation in the diagnostic evaluation among persons with hematuria: Influence of gender, race and risk factors for bladder cancer. *J Urol*, 198(5):1033–1038, 2017. PMID: 28655530. PMCID: PMC5827951.
  57. Zhao Z, Wickersham N, Kangelaris KN, May AK, Bernard GR, Matthay MA, Calfee CS, **Koyama T**, and Ware LB. External validation of a biomarker and clinical prediction model for hospital mortality in acute respiratory distress syndrome. *Intensive Care Med*, 43(8):1123–1131, 2017. PMID: 28593401. PMCID: PMC5978765.
  58. Barocas DA, Alvarez J, Resnick MJ, **Koyama T**, Hoffman KE, Tyson MD, Conwill R, McCollum D, Cooperberg MR, Goodman M, Greenfield S, Hamilton AS, Hashibe M, Kaplan SH, Paddock LE, Stroup AM, Wu XC, and Penson DF. Association between radiation therapy, surgery, or observation for localized prostate cancer and patient-reported outcomes after 3 years. *JAMA*, 317(11):1126–1140, 2017. PMID: 28324093. PMCID: PMC5782813.
  59. Charoenpitakchai M, Liu E, Zhao Z, **Koyama T**, Huh WJ, Berlin J, Hande K, Walker R, and Shi C. In liver metastases from small intestinal neuroendocrine tumors, SSTR2A expression is heterogeneous. *Virchows Arch*, 470(5):545–552, 2017. PMID: 28213807. PMCID: PMC5623953.
  60. Lang MF, Tyson MD, Alvarez JR, **Koyama T**, Hoffman KE, Resnick MJ, Cooperberg MR, Wu XC, Chen V, Paddock LE, Hamilton AS, Hashibe M, Goodman M, Greenfield S, Kaplan SH, Stroup A, Penson DF, and Barocas DA. The influence of psychosocial constructs on the adherence to active surveillance for localized prostate cancer in a prospective, population- based cohort. *Urology*, 103:173–178, 2017. PMID: 28189554. PMCID: PMC5410889.
  61. Russell DW, Janz DR, Emerson WL, May AK, Bernard GR, Zhao Z, **Koyama T**, and Ware LB. Early exposure to hyperoxia and mortality in critically ill patients with severe traumatic injuries. *BMC Pulm Med*, 17(1):29, 2017. PMID: 28158980. PMCID: PMC5291954.

62. Rapoport Y, Freeman T, **Koyama T**, Engelhardt BG, Jagasia M, Savani BN, Tran U, and Kassim AA. Validation of international chronic ocular graft-versus-host disease (GVHD) group diagnostic criteria as a chronic ocular GVHD-specific metric. *Cornea*, 36(2):258–263, 2017. PMID: 28060078.
63. Eifler JB, Alvarez J, **Koyama T**, Conwill RM, Ritch CR, Hoffman KE, Resnick MJ, Penson DF, and Barocas DA. More judicious use of expectant management for localized prostate cancer during the last 2 decades. *J Urol*, 197(3 Pt 1):614–620, 2017. PMID: 27984110. PMCID: PMC5315642.
64. Goff LW, Cardin DB, Whisenant JG, Du L, **Koyama T**, Dahlman KB, Salaria SN, Young RT, Ciombor KK, Gilbert J, Smith SJ, Chan E, and Berlin J. A phase I trial investigating pulsatile erlotinib in combination with gemcitabine and oxaliplatin in advanced biliary tract cancers. *Invest New Drugs*, 35(1):95–104, 2017. PMID: 27853997. PMCID: PMC5306261.
65. Tyson MD, Alvarez J, **Koyama T**, Hoffman KE, Resnick MJ, Wu XC, Cooperberg MR, Goodman M, Greenfield S, Hamilton AS, Hashibe M, Paddock LE, Stroup A, Chen VW, Penson DF, and Barocas DA. Racial variation in patient-reported outcomes following treatment for localized prostate cancer: Results from the CEASAR study. *Eur Urol*, 72(2):307–314, 2017. PMID: 27816300. PMCID: PMC5413424.
66. Luo L, Shaver CM, Zhao Z, **Koyama T**, Calfee CS, Bastarache JA, and Ware LB. Clinical predictors of hospital mortality differ between direct and indirect ARDS. *Chest*, 151(4):755–763, 2017. PMID: 27663180. PMCID: PMC5472517.
67. Fowke JH, **Koyama T**, Fadare O, and Clark PE. Does inflammation mediate the obesity and BPH relationship? An epidemiologic analysis of body composition and inflammatory markers in blood, urine, and prostate tissue, and the relationship with prostate enlargement and lower urinary tract symptoms. *PLoS One*, 11(6):e0156918, 2016. PMID: 27336586. PMCID: PMC4918934.
68. Sohn W, Resnick MJ, Greenfield S, Kaplan SH, Phillips S, **Koyama T**, Goodman M, Hamilton AS, Hashibe M, Hoffman KE, Paddock LE, Stroup AM, Wu XC, Penson DF, and Barocas DA. Impact of adherence to quality measures for localized prostate cancer on patient-reported health-related quality of life outcomes, patient satisfaction, and treatment-related complications. *Med Care*, 54(8):738–744, 2016. PMID: 27219634. PMCID: PMC4945364.
69. Ware LB, Zhao Z, **Koyama T**, May AK, Matthay MA, Lurmann FW, Balmes JR, and Calfee CS. Long-term ozone exposure increases the risk of developing the acute respiratory distress syndrome. *Am J Respir Crit Care Med*, 193(10):1143–1150, 2016. PMID: 26681363. PMCID: PMC4872663.
70. Archer KR, Devin CJ, Vanston SW, **Koyama T**, Phillips SE, Mathis SL, George SZ, McGirt MJ, Spengler DM, Aaronson OS, Cheng JS, and Wegener ST. Cognitive-behavioral-based physical therapy for patients with chronic pain undergoing lumbar spine surgery: A randomized controlled trial. *J Pain*, 17(1):76–89, 2016. PMID: 26476267. PMCID: PMC4709178.
71. O’Neil B, **Koyama T**, Alvarez J, Conwill RM, Albertsen PC, Cooperberg MR, Goodman M, Greenfield S, Hamilton AS, Hoffman KE, Hoffman RM, Kaplan SH, Stanford JL, Stroup AM, Paddock

- LE, Wu XC, Stephenson RA, Resnick MJ, Barocas DA, and Penson DF. The comparative harms of open and robotic prostatectomy in population based samples. *J Urol*, 195(2):321–329, 2016. PMID: 26343985. PMCID: PMC4916911.
72. Tsugawa D, Fukumoto T, Kido M, Takebe A, Tanaka M, Kuramitsu K, Matsumoto I, Ajiki T, **Koyama T**, and Ku Y. The predictive power of serum alpha-fetoprotein and des-gamma-carboxy prothrombin for survival varies by tumor size in hepatocellular carcinoma. *Kobe J Med Sci*, 61(5), 2015. PMID: 27363395.
73. Lindell RB, Koh SJ, Alvarez JM, **Koyama T**, Esbenshade AJ, Simmons JH, and Friedman DL. Knowledge of diagnosis, treatment history, and risk of late effects among childhood cancer survivors and parents: The impact of a survivorship clinic. *Pediatr Blood Cancer*, 62(8):1444–1451, 2015. PMID: 25894324.
74. Samuelson LE, Scherer RL, VanSaun MN, Fan KH, Dozier EA, Carter KJ, **Koyama T**, Shyr Y, Aschner M, Stanwood GD, Bornhop DJ, Matrisian LM, and McIntyre JO. New tools for the quantitative assessment of prodrug delivery and neurotoxicity. *Neurotoxicology*, 47:88–98, 2015. PMID: 25732874. PMCID: PMC4501381.
75. Shi C, Gonzalez RS, Zhao Z, **Koyama T**, Cornish TC, Hande KR, Walker R, Sandler M, Berlin J, and Liu EH. Liver metastases of small intestine neuroendocrine tumors: Ki-67 heterogeneity and World Health Organization grade discordance with primary tumors. *Am J Clin Pathol*, 143(3):398–404, 2015. PMID: 25696798. PMCID: PMC4354931.
76. Hoffman RM, **Koyama T**, Albertsen PC, Barry MJ, Daskivich TJ, Goodman M, Hamilton AS, Stanford JL, Stroup AM, Potosky AL, and Penson DF. Self-reported health status predicts other-cause mortality in men with localized prostate cancer: Results from the Prostate Cancer Outcomes Study. *J Gen Intern Med*, 30(7):924–934, 2015. PMID: 25678374. PMCID: PMC4471031.
77. Simon SD, **Koyama T**, Zacharia BE, Schirmer CM, and Cheng JS. Impact of clinical trials on neurosurgical practice: An assessment of case volume. *World Neurosurg*, 83(4):431–437, 2015. PMID: 25655690.
78. Bassett JC, Alvarez J, **Koyama T**, Resnick M, You C, Ni S, Penson DF, and Barocas DA. Gender, race, and variation in the evaluation of microscopic hematuria among medicare beneficiaries. *J Gen Intern Med*, 30(4):440–447, 2015. PMID: 25451992. PMCID: PMC4371014.
79. Morgans AK, Fan KH, **Koyama T**, Albertsen PC, Goodman M, Hamilton AS, Hoffman RM, Stanford JL, Stroup AM, Resnick MJ, Barocas DA, and Penson DF. Influence of age on incident diabetes and cardiovascular disease in prostate cancer survivors receiving androgen deprivation therapy. *J Urol*, 193(4):1226–1231, 2015. PMID: 25451829. PMCID: PMC4542148.
80. Johnson A, Wright JP, Zhao Z, **Koyama T**, Parikh A, Merchant N, and Shi C. Cadherin 17 is frequently expressed by 'sclerosing variant' pancreatic neuroendocrine tumour. *Histopathology*, 66(2):225–233, 2015. PMID: 25307987. PMCID: PMC4302003.
81. Daskivich TJ, Fan KH, **Koyama T**, Albertsen PC, Goodman M, Hamilton AS, Hoffman RM, Stanford JL, Stroup AM, Litwin MS, and Penson DF. Prediction of long-term other-cause mortality



- in men with early-stage prostate cancer: Results from the Prostate Cancer Outcomes Study. *Urology*, 85(1):92–100, 2015. PMID: 25261048. PMCID: PMC4275422.
82. Fasano RM, Booth GS, Miles M, Du L, **Koyama T**, Meier ER, and Luban NL. Red blood cell alloimmunization is influenced by recipient inflammatory state at time of transfusion in patients with sickle cell disease. *Br J Haematol*, 168(2):291–300, 2015. PMID: 25256676.
83. Resnick MJ, Barocas DA, Morgans AK, Phillips SE, **Koyama T**, Albertsen PC, Cooperberg MR, Goodman M, Greenfield S, Hamilton AS, Hoffman KE, Hoffman RM, Kaplan SH, McCollum D, Paddock LE, Stanford JL, Stroup AM, Wu XC, and Penson DF. The evolution of self-reported urinary and sexual dysfunction over the last two decades: Implications for comparative effectiveness research. *Eur Urol*, 67(6):1019–1025, 2015. PMID: 25174325. PMCID: PMC4412750.
84. Weitkamp JH, Rosen MJ, Zhao Z, **Koyama T**, Geem D, Denning TL, Rock MT, Moore DJ, Halpern MD, Matta P, and Denning PW. Small intestinal intraepithelial TCR $\gamma\delta$ + T lymphocytes are present in the premature intestine but selectively reduced in surgical necrotizing enterocolitis. *PLoS One*, 9(6):e99042, 2014. PMID: 24905458. PMCID: PMC4048281.
85. Snyder RA, Penson DF, Ni S, **Koyama T**, and Merchant NB. Trends in the use of evidence-based therapy for resectable gastric cancer. *J Surg Oncol*, 110(3):285–290, 2014. PMID: 24891231. PMCID: PMC4260801.
86. Chen Q, Wu H, Ware LB, and **Koyama T**. A Bayesian approach for the Cox proportional hazards model with covariates subject to detection limit. *Int J Stat Med Res*, 3(1):32–43, 2014. PMID: 24772198. PMCID: PMC3998726.
87. Jin R, Yi Y, Yull FE, Blackwell TS, Clark PE, **Koyama T**, Smith JA Jr, and Matusik RJ. NF- $\kappa$ B gene signature predicts prostate cancer progression. *Cancer Res*, 74(10):2763–2772, 2014. PMID: 24686169. PMCID: PMC4024337.
88. Barnett N, Zhao Z, **Koyama T**, Janz DR, Wang CY, May AK, Bernard GR, and Ware LB. Vitamin D deficiency and risk of acute lung injury in severe sepsis and severe trauma: A case-control study. *Ann Intensive Care*, 4(1):5, 2014. PMID: 24559079. PMCID: PMC3944729.
89. Resnick MJ, Barocas DA, Morgans AK, Phillips SE, Chen VW, Cooperberg MR, Goodman M, Greenfield S, Hamilton AS, Hoffman KE, Kaplan SH, Paddock LE, Stroup AM, Wu XC, **Koyama T**, and Penson DF. Contemporary prevalence of pretreatment urinary, sexual, hormonal, and bowel dysfunction: Defining the population at risk for harms of prostate cancer treatment. *Cancer*, 120(8):1263–1271, 2014. PMID: 24510400. PMCID: PMC4930672.
90. Barocas DA, Alvarez J, **Koyama T**, Anderson CB, Gray DT, Fowke JH, You C, Chang SS, Cookson MS, Smith JA Jr, and Penson DF. Racial variation in the quality of surgical care for bladder cancer. *Cancer*, 120(7):1018–1025, 2014. PMID: 24339051. PMCID: PMC3961490.
91. Pallavaram S, Phibbs FT, Tolleson C, Davis TL, Fang J, Hedera P, Li R, **Koyama T**, Dawant BM, and D’Haese PF. Neurologist consistency in interpreting information provided by an interactive visualization software for deep brain stimulation postoperative programming assistance. *Neuro-modulation*, 17(1):11, 2014. PMID: 23647701. PMCID: PMC4039015.

92. Barocas DA, Chen V, Cooperberg M, Goodman M, Graff JJ, Greenfield S, Hamilton A, Hoffman K, Kaplan S, **Koyama T**, Morgans A, Paddock LE, Phillips S, Resnick MJ, Stroup A, Wu XC, and Penson DF. Using a population-based observational cohort study to address difficult comparative effectiveness research questions: The CEASAR study. *J Comp Eff Res*, 2(4):445–460, 2013. PMID: 24236685. PMCID: PMC4920086.
93. Ware LB, **Koyama T**, Zhao Z, Janz DR, Wickersham N, Bernard GR, May AK, Calfee CS, and Matthay MA. Biomarkers of lung epithelial injury and inflammation distinguish severe sepsis patients with acute respiratory distress syndrome. *Crit Care*, 17(5), 2013. PMID: 24156650. PMCID: PMC4056313.
94. Janz DR, Zhao Z, **Koyama T**, May AK, Bernard GR, Bastarache JA, Young PP, and Ware LB. Longer storage duration of red blood cells is associated with an increased risk of acute lung injury in patients with sepsis. *Ann Intensive Care*, 3(1):33, 2013. PMID: 24059842. PMCID: PMC3848804.
95. Parikh AA, Ni S, **Koyama T**, Pawlik TM, and Penson D. Trends in the multimodality treatment of resectable colorectal liver metastases: An underutilized strategy. *J Gastrointest Surg*, 17(11):1938–1946, 2013. PMID: 24018590.
96. Simmons J, Sheedy C, Lee H, Koh S, Alvarez J, **Koyama T**, and Friedman D. Prevalence of 25-hydroxyvitamin D deficiency in child and adolescent patients undergoing hematopoietic cell transplantation compared to a healthy population. *Pediatr Blood Cancer*, 60(12):2025–2030, 2013. PMID: 23868793.
97. Daskivich TJ, Fan KH, **Koyama T**, Albertsen PC, Goodman M, Hamilton AS, Hoffman RM, Stanford JL, Stroup AM, Litwin MS, and Penson DF. Effect of age, tumor risk, and comorbidity on competing risks for survival in a U.S. population-based cohort of men with prostate cancer. *Ann Intern Med*, 158(10):709–717, 2013. PMID: 23689764. PMCID: PMC3760479.
98. Hoffman RM, **Koyama T**, Fan KH, Albertsen PC, Barry MJ, Goodman M, Hamilton AS, Potosky AL, Stanford JL, Stroup AM, and Penson DF. Mortality after radical prostatectomy or external beam radiotherapy for localized prostate cancer. *J Natl Cancer Inst*, 105(10):711–718, 2013. PMID: 23615689. PMCID: PMC3653822.
99. Edwards HD, Oakley F, **Koyama T**, and Hameed O. The impact of tumor size in breast needle biopsy material on final pathologic size and tumor stage: A detailed analysis of 222 consecutive cases. *Am J Surg Pathol*, 37(5):739–744, 2013. PMID: 23552386.
100. Esbenshade AJ, Simmons JH, **Koyama T**, Lindell RB, and Friedman DL. Obesity and insulin resistance in pediatric acute lymphoblastic leukemia worsens during maintenance therapy. *Pediatr Blood Cancer*, 60(8):1287–1291, 2013. PMID: 23444342. PMCID: PMC3881979.
101. Resnick MJ, **Koyama T**, Fan KH, Albertsen PC, Goodman M, Hamilton AS, Hoffman RM, Potosky AL, Stanford JL, Stroup AM, Van Horn RL, and Penson DF. Long-term functional outcomes after treatment for localized prostate cancer. *N Engl J Med*, 368(5):436–445, 2013. PMID: 23363497. PMCID: PMC3742365.

102. Fowke JH, Phillips S, **Koyama T**, Byerly S, Concepcion R, Motley SS, and Clark PE. Association between physical activity, lower urinary tract symptoms (LUTS) and prostate volume. *BJU Int*, 111(1):122–128, 2013. PMID: 22726636. PMCID: PMC3460041.
103. Weitkamp JH, **Koyama T**, Rock MT, Correa H, Goettel JA, Matta P, Oswald-Richter K, Rosen MJ, Engelhardt BG, Moore DJ, and Polk DB. Necrotising enterocolitis is characterised by disrupted immune regulation and diminished mucosal regulatory (FOXP3)/effector (CD4, CD8) T cell ratios. *Gut*, 62(1):73–82, 2013. PMID: 22267598. PMCID: PMC3606820.
104. Wu H, Chen Q, Ware LB, and **Koyama T**. A Bayesian approach for generalized linear models with explanatory biomarker measurement variables subject to detection limit - an application to acute lung injury. *J Appl Stat*, 39(8):1733–1747, 2012. PMID: 23049157. PMCID: PMC3463110.
105. Martinez JA, **Koyama T**, Acra S, Mascarenhas MR, and Shulman RJ. Nutrition education for pediatric gastroenterology, hepatology, and nutrition fellows: Survey of NASPGHAN fellowship training programs. *J Pediatr Gastroenterol Nutr*, 55(2):131–135, 2012. PMID: 22343911. PMCID: PMC3395733.
106. Korhonen K, Lovvorn HN 3rd, **Koyama T**, Koehler E, Calder C, Manes B, Evans M, Bruce K, Ho RH, Domm J, and Frangoul H. Incidence, risk factors, and outcome of pneumatosis intestinalis in pediatric stem cell transplant recipients. *Pediatr Blood Cancer*, 58(4):616–620, 2012. PMID: 21721114.
107. **Koyama T**. Length of the Beatles' song. *Chance*, 25(1):30–33, 2012.
108. Ware LB, **Koyama T**, Billheimer D, Landeck M, Johnson E, Brady S, Bernard GR, and Matthay MA. Advancing donor management research: Design and implementation of a large, randomized, placebo-controlled trial. *Ann Intensive Care*, 1(1):20, 2011. PMID: 21906362. PMCID: PMC3224478.
109. Stabler S, **Koyama T**, Zhao Z, Martinez-Ferrer M, Allen RH, Luka Z, Loukachevitch LV, Clark PE, Wagner C, and Bhowmick NA. Serum methionine metabolites are risk factors for metastatic prostate cancer progression. *PLoS One*, 6(8):e22486, 2011. PMID: 21853037. PMCID: PMC3154200.
110. Smith DS, Welch EB, Li X, Arlinghaus LR, Loveless ME, **Koyama T**, Gore JC, and Yankeelov TE. Quantitative effects of using compressed sensing in dynamic contrast enhanced MRI. *Phys Med Biol*, 56(15):4933–4946, 2011. PMID: 21772079. PMCID: PMC3192434.
111. Deeley MA, Chen A, Datteri R, Noble JH, Cmelak AJ, Donnelly EF, Malcolm AW, Moretti L, Jaboin J, Niermann K, Yang ES, Yu DS, Yei F, **Koyama T**, Ding GX, and Dawant BM. Comparison of manual and automatic segmentation methods for brain structures in the presence of space-occupying lesions: A multi-expert study. *Phys Med Biol*, 56(14):4557–4577, 2011. PMID: 21725140. PMCID: PMC3153124.
112. Williams K, **Koyama T**, Schulz D, Kaluza GL, Pautler RG, Weisbrodt N, and Conner ME. Use of fluoroscopy to study in vivo motility in mouse pups. *J Pediatr Gastroenterol Nutr*, 52(6):679–685, 2011. PMID: 21593642. PMCID: PMC3098421.

113. O'Neal HR Jr, **Koyama T**, Koehler EA, Siew E, Curtis BR, Fremont RD, May AK, Bernard GR, and Ware LB. Prehospital statin and aspirin use and the prevalence of severe sepsis and acute lung injury/acute respiratory distress syndrome. *Crit Care Med*, 39(6):1343–1350, 2011. PMID: 21336116. PMCID: PMC3102130.
114. Bastarache JA, **Koyama T**, Wickersham NE, Mitchell DB, Mernaugh RL, and Ware LB. Accuracy and reproducibility of a multiplex immunoassay platform: A validation study. *J Immunol Methods*, 367(1-2):33–39, 2011. PMID: 21277854. PMCID: PMC3108329.
115. Esbenshade AJ, Simmons JH, **Koyama T**, Koehler E, Whitlock JA, and Friedman DL. Body mass index and blood pressure changes over the course of treatment of pediatric acute lymphoblastic leukemia. *Pediatr Blood Cancer*, 56(3):372–378, 2011. PMID: 20860019. PMCID: PMC3713225.
116. Simon SD, **Koyama T**, Cheng JS, and Mericle RS. Incidence of clipping and coiling procedures: Aneurysm treatment of medicare patients, 1996 - 200. *AANS Neurosurgeon*, 20(1):16–19, 2011.
117. Mukherjee K, Peng D, Brifkani Z, Belkhiri A, Pera M, **Koyama T**, Koehler EA, Revetta FL, Washington MK, and El-Rifai W. Dopamine and cAMP regulated phosphoprotein MW 32 kDa is over-expressed in early stages of gastric tumorigenesis. *Surgery*, 148(2):354–363, 2010. PMID: 20580047. PMCID: PMC2919779.
118. Fremont RD, **Koyama T**, Calfee CS, Wu W, Dossett LA, Bossert FR, Mitchell D, Wickersham N, Bernard GR, Matthay MA, May AK, and Ware LB. Acute lung injury in patients with traumatic injuries: Utility of a panel of biomarkers for diagnosis and pathogenesis. *J Trauma*, 68(5):1121–1127, 2010. PMID: 20038857. PMCID: PMC3347639.
119. Ware LB, **Koyama T**, Billheimer DD, Wu W, Bernard GR, Thompson BT, Brower RG, Standiford TJ, Martin TR, and Matthay MA. Prognostic and pathogenetic value of combining clinical and biochemical indices in patients with acute lung injury. *Chest*, 137(2):288–296, 2010. PMID: 19858233. PMCID: PMC2816641.
120. Rosen MJ, Moulton DE, **Koyama T**, Morgan WM 3rd, Morrow SE, Herline AJ, Muldoon RL, Wise PE, Polk DB, and Schwartz DA. Endoscopic ultrasound to guide the combined medical and surgical management of pediatric perianal Crohn's disease. *Inflamm Bowel Dis*, 16(3):461–468, 2010. PMID: 19637325. PMCID: PMC2871764.
121. Masaki N, **Koyama T**, Yoshimura I, and Hamada C. Optimal two-stage designs allowing flexibility in number of subjects for phase II clinical trials. *J Biopharm Stat*, 19(4):721–731, 2009. PMID: 20183436.
122. Love HD, Booton SE, Boone BE, Breyer JP, **Koyama T**, Revelo MP, Shappell SB, Smith JR, and Hayward SW. Androgen regulated genes in human prostate xenografts in mice: Relation to BPH and prostate cancer. *PLoS One*, 4(12):e8384, 2009. PMID: 20027305. PMCID: PMC2793011.
123. Sisler IY, Koehler E, **Koyama T**, Domm JA, Ryan R, Levine JE, Pulsipher MA, Haut PR, Schultz KR, Taylor DS, and Frangoul HA. Impact of conditioning regimen in allogeneic hematopoietic

- stem cell transplantation for children with acute myelogenous leukemia beyond first complete remission: A pediatric blood and marrow transplant consortium (PBMTTC) study. *Biol Blood Marrow Transplant*, 15(12):1620–1627, 2009. PMID: 19896086.
124. Pallavaram S, Dawant BM, **Koyama T**, Yu H, Neimat J, Konrad PE, and D’Haese PF. Validation of a fully automatic method for the routine selection of the anterior and posterior commissures in magnetic resonance images. *Stereotact Funct Neurosurg*, 87(3):148–154, 2009. PMID: 19321967. PMCID: PMC2835380.
  125. Frangoul H, **Koyama T**, and Domm J. Etanercept for treatment of idiopathic pneumonia syndrome after allogeneic hematopoietic stem cell transplantation. *Blood*, 113(12):2868, 2009. PMID: 19299655.
  126. Weitkamp JH, Rudzinski E, **Koyama T**, Correa H, Matta P, Alberty B, and Polk DB. Ontogeny of FOXP3(+) regulatory T cells in the postnatal human small intestinal and large intestinal lamina propria. *Pediatr Dev Pathol*, 12(6):443–449, 2009. PMID: 19203136. PMCID: PMC2844857.
  127. Piro CC, Crossno CL, Collier A, Ho R, **Koyama T**, and Frangoul H. Initial vancomycin dosing in pediatric oncology and stem cell transplant patients. *J Pediatr Hematol Oncol*, 31(1):3–7, 2009. PMID: 19125078.
  128. Blum DL, **Koyama T**, M’Koma AE, Iturregui JM, Martinez-Ferrer M, Uwamariya C, Smith JA Jr, Clark PE, and Bhowmick NA. Chemokine markers predict biochemical recurrence of prostate cancer following prostatectomy. *Clin Cancer Res*, 14(23):7790–7797, 2008. PMID: 19047106. PMCID: PMC3050736.
  129. Li X, Placencio V, Iturregui JM, Uwamariya C, Sharif-Afshar AR, **Koyama T**, Hayward SW, and Bhowmick NA. Prostate tumor progression is mediated by a paracrine TGF- $\beta$ /Wnt3a signaling axis. *Oncogene*, 27(56):7118–7130, 2008. PMID: 18724388. PMCID: PMC3222150.
  130. Edelblum KL, Goettel JA, **Koyama T**, McElroy SJ, Yan F, and Polk DB. Tnfr1 promotes tumor necrosis factor-mediated mouse colon epithelial cell survival through RAF activation of NF- $\kappa$ B. *J Biol Chem*, 283(43):29485–29494, 2008. PMID: 18713739. PMCID: PMC2570867.
  131. Edelblum KL, Washington MK, **Koyama T**, Robine S, Baccarini M, and Polk DB. Raf protects against colitis by promoting mouse colon epithelial cell survival through NF- $\kappa$ B. *Gastroenterology*, 135(2):539–551, 2008. PMID: 18598699. PMCID: PMC2640938.
  132. Kawaguchi M, Hager HA, Wada A, **Koyama T**, Chang MS, and Bader DM. Identification of a novel intracellular interaction domain essential for Bves function. *PLoS One*, 3(5):e2261, 2008. PMID: 18493308. PMCID: PMC2373926.
  133. Dar AA, Zaika A, Piazuolo MB, Correa P, **Koyama T**, Belkhiri A, Washington K, Castells A, Pera M, and El-Rifai W. Frequent overexpression of Aurora Kinase A in upper gastrointestinal adenocarcinomas correlates with potent antiapoptotic functions. *Cancer*, 112(8):1688–1698, 2008. PMID: 18311783. PMCID: PMC4030394.

134. Branner CM, **Koyama T**, and Jensen GL. Racial and ethnic differences in pediatric obesity-prevention counseling: National prevalence of clinician practices. *Obesity (Silver Spring)*, 16(3):690–694, 2008. PMID: 18239563.
135. Stumph J, Vnencak-Jones CL, **Koyama T**, and Frangoul H. Comparison of peripheral blood and bone marrow samples for detection of post transplant mixed chimerism. *Bone Marrow Transplant*, 41(6):589–590, 2008. PMID: 18037938.
136. **Koyama T** and Chen H. Proper inference from Simon’s two-stage designs. *Stat Med*, 27(16):3145–3154, 2008. PMID: 17960777. PMCID: PMC6047527.
137. **Koyama T**. Flexible design of two-stage adaptive procedures for phase III clinical trials. *Contemp Clin Trials*, 28(4):500–513, 2007. PMID: 17307399.
138. M’Koma AE, Blum DL, Norris JL, **Koyama T**, Billheimer D, Motley S, Ghiassi M, Ferdowsi N, Bhowmick I, Chang SS, Fowke JH, Caprioli RM, and Bhowmick NA. Detection of pre-neoplastic and neoplastic prostate disease by MALDI profiling of urine. *Biochem Biophys Res Commun*, 353(3):829–834, 2007. PMID: 17194448. PMCID: PMC2562600.
139. Sepmeyer JA, Greer JP, **Koyama T**, and Zic JA. Open-label pilot study of combination therapy with rosiglitazone and bexarotene in the treatment of cutaneous T-cell lymphoma. *J Am Acad Dermatol*, 56(4):584–587, 2007. PMID: 17184879.
140. Jones E, **Koyama T**, Ho RH, Kuttesch J, Shankar S, Whitlock JA, Cartwright J, and Frangoul H. Safety and efficacy of a continuous infusion, patient-controlled antiemetic pump for children receiving emetogenic chemotherapy. *Pediatr Blood Cancer*, 48(3):330–332, 2007. PMID: 16304666.
141. Keates-Baleeiro J, Moore P, **Koyama T**, Manes B, Calder C, and Frangoul H. Incidence and outcome of idiopathic pneumonia syndrome in pediatric stem cell transplant recipients. *Bone Marrow Transplant*, 38(4):285–289, 2006. PMID: 16819436.
142. **Koyama T** and Westfall PH. Decision-theoretic views on simultaneous testing of superiority and noninferiority. *J Biopharm Stat*, 15(6):943–955, 2005. PMID: 16279353.
143. Schwartz DA, Connolley CD, **Koyama T**, Wise PE, and Herline AJ. Calcaneal ultrasound bone densitometry is not a useful tool to screen patients with inflammatory bowel disease at high risk for metabolic bone disease. *Inflamm Bowel Dis*, 11(8):749–754, 2005. PMID: 16043991.
144. **Koyama T**, Sampson AR, and Gleser LJ. A framework for two-stage adaptive procedures to simultaneously test non-inferiority and superiority. *Stat Med*, 24(16):2439–2456, 2005. PMID: 15977285.
145. Rhodes M, Lautz T, Kavanaugh-Mchugh A, Manes B, Calder C, **Koyama T**, Liske M, Parra D, and Frangoul H. Pericardial effusion and cardiac tamponade in pediatric stem cell transplant recipients. *Bone Marrow Transplant*, 36(2):139–144, 2005. PMID: 15908968.
146. **Koyama T**, Sampson AR, and Gleser LJ. A calculus for design of two-stage adaptive procedure. *JASA*, 100(469):197–203, 2005.

147. Layman W and **Koyama T**. A clinical comparison of LED and halogen curing units. *J Clin Orthod*, 38(7):385–387, 2004. PMID: 15304953.

## B. Extramural Seminars and Presentations

### Session Chairs

1. Early phase clinical trials. *International Conference on Applied Statistics*, Tamkang University, Taipei, Taiwan. March 11-12, 2011.
2. Early phase combination trial. *Pacific Rim Cancer Biostatistics Workshop*, Kanazawa, Japan. October 12-13, 2017.

### Invited presentations

1. A calculus for design of two-stage adaptive procedures. *Workshop on Adaptive Designs*. The Fields Institute, Toronto, Ontario, Canada. September 25-27, 2003.
2. A flexible method for design of two-stage adaptive procedures. *Meisei University*, Tokyo, Japan. December 15, 2003.
3. Two-stage adaptive procedures for simultaneously testing noninferiority and superiority. *American Statistical Association Middle Tennessee Chapter Meeting*. Nashville, TN. February 27, 2004.
4. Proper inference from Simon's two-stage designs. *Conference and Celebration for Leon Gleser and Tom Savits*. Department of Statistics, University of Pittsburgh. Pittsburgh, PA. May 5-6, 2006.
5. Applications of adaptive designs. *The 2006 Japanese Joint Statistical Meeting*. Sendai, Japan. September 7, 2006.
6. Applications of adaptive designs in phase II clinical trials. *Tokai Medical Association*, Isehara, Japan. September 11, 2006.
7. Miscellaneous topics in probability. *American Statistical Association Middle Tennessee Chapter Meeting*. Nashville, TN. October 27, 2006.
8. Inference from general adaptive designs. *Grants-in-Aid Conference on Applications of Multiple Decision Making in Clinical Drug Development*. Kobe, Japan. February 27-28, 2007.
9. Flexible designing of a two-stage adaptive procedures. *Targeted Designs for Clinical Trials*. Philadelphia, PA. July 19-20, 2007.
10. Bayesian statistics in academics in the United States. *Bayesian Statistics and the Future of Clinical Trials*. StatCom Company Fifth Anniversary Symposium, Tokyo, Japan. December 5, 2008.
11. Fundamentals of adaptive designs. *Forum for Antineoplastic Agent Development*. Japanese Foundation for Cancer Research. Tokyo, Japan. June 18, 2011.

12. The prudent statistician's guide to two-stage designs. *Public Health & Preventive Medicine Grand Rounds*. Knit Cancer Institute, Oregon Health Science & Science University. Portland, OR. December 19, 2013.
13. Statistical considerations for dose finding phase I clinical trials: a scientific reviewer's perspective. *Tokai Medical Association*, Isehara, Japan. July 10, 2014.
14. Rigorous statistics for basic and clinical sciences. *Division of Mathematical Sciences*, Osaka University, Osaka, Japan. July 16, 2014.
15. Statistics in phase I clinical trials. *University of Osaka*, Osaka, Japan. July 16, 2014.
16. Statistical considerations for dose finding phase I clinical trials. *Department of Statistics, National Cheng Kung University*, Tainan, Taiwan. September 9, 2014.
17. From 3+3 to mTPI: A Collaborative Biostatistician's Experience in a Comprehensive Cancer Center *Pacific Rim Cancer Biostatistics Workshop*, Kanazawa, Japan. October 12-13, 2017.
18. Multiplicity in clinical trial: FDA guidance and EMA guidelines. *2018 Association of Clinical and Translational Statistic. Annual Meeting*, Vancouver, Canada. July 29, 2018.
19. What we don't talk about when we talk about biostatistics: Challenges in data merging and treatment definition in a large-scale observational study *Department of Biostatistics, University of Louisville*, November, 2, 2018.
20. Very difficult non-biostatistical challenges that the team of biostatisticians faced in a large population-based cohort study in prostate cancer. *Hiroshima University Renal and Urology Research Seminar*, July 5, 2019.
21. Very difficult non-biostatistical challenges that the team of biostatisticians faced in a large population-based cohort study in prostate cancer. *Osaka City University Clinical Research Educational Seminar Series*, July 9, 2019.
22. Very difficult non-biostatistical challenges that the team of biostatisticians faced in a large population-based cohort study in prostate cancer. *Yokohama City University*, July 11, 2019.
23. Statistical considerations for designing a clinical trial. *Vanderbilt-Global Haploidentical Transplant Learning Collaborative Meeting*, Nashville, TN. September 9, 2019.
24. The Biostatistician's role in team science: a case study of collaborating on a large prostate cancer study. *Cancer Research Seminar Series*, The University of Tennessee Health Science Center, Memphis, TN. November 5, 2019.

#### Contributed Presentations

25. Flexible designing of two-stage adaptive procedures. *ENAR Spring Meeting*. Pittsburgh, PA. March 28-31, 2004.
26. Combinations of two-stage designs for testing multiple treatments in phase II cancer trials. *ENAR Spring Meeting*. Austin, TX. March 20 -23, 2005.



27. Significant design components in general two-stage adaptive procedures. *Joint Statistical Meeting*. Minneapolis, MI. August 7-11, 2005.
28. Pitfalls of simplistic normalization in basic science experiments. *Joint Statistical Meeting*. Vancouver, BC, Canada. July 29-August 5, 2010.

#### Contributed Posters

29. Two-stage procedures for simultaneously testing noninferiority and superiority. *Midwest Biopharmaceutical Statistical Workshop*. Muncie, IN. May 24-26, 2004.

#### C. Intramural Seminars and Presentations at Vanderbilt

1. Two-stage adaptive procedures for simultaneously testing noninferiority and superiority. *Biostatistics Seminar*. Department of Biostatistics. February, 2004.
2. General two-stage adaptive designs in phase III clinical trials. *Biostatistics Seminar*. Department of Biostatistics. February, 2005.
3. Proper inference from Simon's two-stage designs. *Biostatistics Seminar*. Department of Biostatistics. February, 2007.
4. Miscellaneous topics in probability and statistics. *Cancer Biostatistics Center Luncheon*. November, 2007
5. Bayesian biostatistics. *Cancer Biostatistics Center Luncheon*. March, 2008
6. *T*-test on fold changes. *Biostatistics Seminar*. Department of Biostatistics. June, 2010.
7. Non-analytical challenges faced by a team of biostatisticians when collaborating on a large cohort study in prostate cancer. *Biostatistics Seminar*. Department of Biostatistics. September, 2019.

## RESEARCH PROGRAMS

---

The list includes some grants to which Dr. Koyama has contributed though the efforts have subsequently been transferred to other members of the Department of Biostatistics and Center for Quantitative Sciences.

**5P50 CA090949** (Carbone) 9/1/2003 - 3/31/2012  
 NIH/NCI Role: Co-investigator  
 SPORE in Lung Cancer

The major goal of this project is to investigate the molecular features of tumors or tumor-host interactions to identify targets for intervention and improve outcomes for lung cancer patients.

**5K24 CA080908** (Carbone) 9/1/2003 - 5/31/2005  
 NIH/NCI Role: Co-investigator  
 Molecular Therapeutics of Cancer

The major goal of this project is to enable the partnering of premiere institutions based in the Lung Cancer SPORE program to determine how the information derived from comprehensive molecular analyses can be used to improve patient care and outcomes.

- R21 DK069527** (Bhowmick) 9/30/2003 - 8/31/2008  
NIDDKD Role: Co-investigator  
TGF $\beta$  Signaling in the Bladder Stroma  
The major goal of this project is to explore the TGF $\beta$ -mediated signals in the stroma that mediate bladder estrogen and androgen responsiveness associated with bladder stromal hyperplasia.
- 2U01 CA099177** (Rothenberg) 12/01/2003 - 2/28/2009  
NCI Role: Co-investigator  
Vanderbilt Phase I Translational Research Program  
The major goal of this project is to conduct early-phase, dose-ranging trials of new anticancer agents to characterize their toxicity, pharmacology, and effects on molecular targets.
- 5P01 CA077839** (DuBois) 5/1/2004 - 4/30/2010  
NIH/NCI Role: Co-investigator  
Mechanisms for Chemoprevention of Cancer  
The major goal of this project is to determine the molecular mechanisms involved in the chemoprevention of cancer by NSAIDs.
- 5R01 CA108646** (Bhowmick) 8/1/2004 - 5/31/2010  
NCI Role: Co-investigator  
TGF $\beta$  Signals in Prostate Stromal-Epithelial Interactions  
The major goal of this project is to specifically identify the TGF $\beta$ -mediated signals in the stroma that mediate prostate androgen responsiveness.
- W81XWH-04-1-0867** (Hayward) 9/10/2004 - 9/14/2007  
DOD Role: Co-investigator  
An Myc-driven *in vivo* Model of Human Prostate Cancer  
The major goal of this project is to develop a novel *in vivo* model of human prostate cancer based upon overexpression of the cMyc proto-oncogene.
- AICR** (Fowke) 2/1/2005 - 1/31/2007  
American Institute for Cancer Research Role: Co-investigator  
Effects of Brassica or Indole-3-Carbinol in Prostatectomy Patients with PSA Recurrence  
The major goal of this project is to determine the effect of a diet rich in Brassica vegetables, or a non-nutrient diet supplement containing the Brassica-derived chemical believed to be biologically active, on PSA velocity.
- U01 HL081332** (Ware) 8/12/2005 - 6/30/2010  
NHLBI Role: Co-investigator  
Biomarker Profiles in the Diagnosis/Prognosis of ARDS  
The major goal of this project is to utilize a multi-disciplinary clinical proteomics approach to identify biomarkers for the diagnosis and prognosis of acute respiratory distress syndrome (ARDS).
- 5U01 CA114771** (Carbone) 9/30/2005 - 5/31/2011  
NCI Role: Co-investigator  
Molecular Signature of Lung Cancer (SPECS)  
The major goal of this project is to evaluate the potential clinical usefulness of several molecular signatures already developed using a variety of molecular analysis technologies, including DNA, RNA, and protein-based technologies addressing both diagnostic and predictive signatures.

- LAF Research Award** (Matthews) 1/1/2006 - 12/31/2007  
Lance Armstrong Foundation Role: Co-investigator  
Exercise Intervention for Chemotherapy-Related Cognitive Dysfunction  
The major goal of this project is to investigate the effects of exercise on chemotherapy-related cognitive dysfunction.
- 2R01 CA106176** (El-Rifai) 3/20/2006 - 6/30/2008  
NCI Role: Co-investigator  
Biomarkers in Barrett's Tumorigenesis  
The major goal of this project is to discover novel diagnostic and/or prognostic molecular markers for Barrett's carcinomas.
- 2005 Research Reward** (Fowke) 4/1/2006 - 3/31/2008  
Prostate Cancer Foundation Role: Co-investigator  
Glitazones and Prostate Cancer Risk in a Large Cohort of Men with Type II Diabetes  
The major goal of this project is to determine the duration of Glitazone use, age at use, and most effective Glitazone associated with reduced prostate cancer risk.
- P50 GM015431** (Oates) 7/3/2006 - 6/30/2011  
NIH/NIGMS Role: Biostatistician  
Research Center for Pharmacology and Drug Toxicology  
The major goal of this project is to support research related to Eicosanoid biology and pharmacology.
- R01 EB006193** (Dawant) 5/1/2007 - 2/28/2011  
NIBIB Role: Co-investigator  
Autosegmentation for Head and Neck Radiotherapy Planning  
The major goal of this project is to develop, implement, and test the methodology required to automate the segmentation of structures in the treatment of patients with intracranial and head-and-neck cancers.
- VUMC Discovery Grant** (Koyama) 7/1/2007 - 6/30/2009  
VUMC Role: Principal investigator  
Proper Inference from a Simon's Design When The Sample Size is Changed  
The major goal of this project is to develop a new analysis method that will compute a more accurate or proper p-value and confidence intervals for two-stage clinical trials.
- 5P30 DK058404** (Polk) 8/30/2007 - 5/31/2022  
NIDDKD Role: Core leader  
Molecular and Cellular Basis of Digestive Diseases  
The major goal of this project is to investigate the molecular and cellular mechanisms responsible for digestive diseases.
- 5R01 HL088263** (Ware) 2/1/2008 - 1/31/2013  
NHLBI Role: Co-investigator  
Treatment of Pulmonary Edema in Organ Donors  
The major goal of this project is to determine whether administration of an aerosolized beta-2 agonist in brain-dead organ donors will improve: 1) donor oxygenation by enhancing clearance of pulmonary edema and 2) donor lung procurement rates.

**5R01 HD059253** (Malow) 4/1/2008 - 3/31/2010  
 NINDS Role: Co-investigator  
 Melatonin for Sleep in Children with Autism: Safety, Tolerability, and Dosing

The major goals of this project are to optimize the intervention strategy for administering supplemental melatonin in children with asd; characterize the pharmacokinetic profile of supplemental melatonin; and pilot a group of behavioral and parental stress scales in preparation for an rct.

**5R01 CA077955** (Peek) 6/1/2008 - 3/31/2013  
 NCI Role: Co-investigator  
 H. Pylori Relationship to Digestive Diseases and Cancer

The major goal of this project is to define mechanisms through which H. Pylori induce epithelial responses with carcinogenic potential.

**5R01 CA093999** (El-Rifai) 7/1/2008 - 4/30/2013  
 NCI Role: Co-investigator  
 Gene Amplification and Overexpression at 17q in Gastric Cancer

The major goal of this project is to investigate the prevalence of 17q alterations in gastric cancer and identify critical changes at this chromosomal region.

**5P50 CA098131** (Arteaga) 9/11/2008 - 5/31/2013  
 NCI Role: Co-investigator  
 SPORE in Breast Cancer

The major goal of this project is to address basic, clinical, and population research questions in breast cancer.

**5R01 CA095405** (Mahadevan-Jansen) 9/19/2008 - 7/31/2013  
 NCI Role: Co-investigator  
 Diagnosis of Cervical Precancers using Raman Spectroscopy

This project aims to assess the validity of the hypothesis that Raman spectroscopy can provide differential diagnosis of cervical precancers from inflammation, squamous metaplasia and normal areas of the cervix.

**5P50 CA128323** (Gore) 9/22/2008 - 8/31/2013  
 NIH/NCI Role: Co-investigator  
 Vanderbilt *in vivo* Cellular and Molecular Imaging Center

The major goal of this project is to establish a new In Vivo Cellular and Molecular Imaging Center at Vanderbilt University which will be dedicated to highly innovative molecular imaging studies of cancer biology of direct relevance and translational potential to clinical cancer care.

**5P01 CA116087** (Peek) 1/1/2009 - 8/31/2023  
 NCI Role: Co-investigator  
 H. Pylori-Induced Inflammation and Gastric Cancer

The major goal of this project is to delineate the molecular signaling events initiated by H. pylori: epithelial cell contact that regulates phenotypes related to gastric carcinogenesis.

**DOD PC081246** (Bhowmick) 4/1/2009 - 3/31/2012  
 DOD Role: Co-investigator  
 Regulation and Function of Cytokines That Predict Prostate Cancer Metastasis

The major goal of this project is to identify the biologic role of specific chemokines shown to predict biochemical prostate cancer recurrence following prostatectomy.

**5R01 DK081134** (Yan) 4/1/2009 - 3/31/2014

NIDDKD Role: Biostatistician

Probiotics-Derived Soluble Proteins Regulate Intestinal Inflammation

The major goals of this project are to investigate the relationships between p40 and intestinal cell survival, inflammation, and apoptosis.

**5R01 CA131225** (El-Rifai) 6/1/2009 - 4/30/2014

NCI Role: Co-investigator

The Role of Aurora Kinase A in Upper Gastrointestinal Adenocarcinomas

The major goal of this project is to characterize the role of AURKA in GEC tumorigenesis to identify its biological, clinical, diagnostic, and prognostic value.

**2R01 DK056008** (Polk) 8/1/2009 - 7/31/2014

NIDDK Role: Co-investigator

Cytokine Regulation of Intestinal Epithelial Restitution

The major goal of this project is to characterize the role of the TNFRs in regulating intestinal epithelial cells in health and after injury.

**5R01 CA133738** (El-Rifai) 8/13/2009 - 7/31/2012

NCI Role: Co-investigator

The Role of T-Darpp in Upper Gastrointestinal Adenocarcinomas

The major goals of this project are to determine the effects of t-Darpp expression on trastuzumab resistance, to investigate the mechanism(s) by which t-Darpp regulates apoptosis, and to determine the molecular signaling targets of t-Darpp.

**7R01 CA114524** (Penson) 9/25/2009 - 7/31/2011

NCI Role: Co-investigator

Race, Comorbidity, Long-Term Prostate Cancer Outcomes

The major goal of this project is to explore the relationships among race, comorbidity, and long-term prostate cancer outcomes.

**5R01 CA106176** (El-Rifai) 4/1/2010 - 3/31/2011

NCI Role: Co-investigator

Molecular Pathobiology of Barrett's Tumorigenesis

The major goal of this project is to discover novel diagnostic and/or prognostic molecular markers for Barrett's carcinomas.

**5R01 CA142565** (Yankeelov) 5/1/2010 - 4/30/2015

NCI Role: Co-investigator

PET-MRI for Assessing Treatment Response in Breast Cancer Clinical Trials

The major goal of this project is to provide the breast cancer community with practical data acquisition and analysis protocols that facilitate the translation of advanced imaging technologies into clinical practice.

**5R01 DK087962** (Fowke) 7/1/2010 - 6/30/2014

NIDDK Role: Co-investigator

Biomarkers of Obesity, Prostate Tissue Inflammation, and BPH Progression

The major goal of this project is to investigate the molecular/cellular and clinical associations among obesity, prostate inflammation, and prostate hyperplasia.

**1R01 CA143094** (Lynch) 7/1/2010 - 6/30/2015  
NIH Role: Co-investigator  
Host MMP-Mediated Regulation of the Vicious Cycle of Prostate to Bone Metastases

The major goal of this project is to investigate how individual matrix metalloproteinases (MMPs) expressed by the host facilitate the metastasis of prostate cancer to bone by regulating the bioactivity and bioavailability of various growth factors and cytokines.

**5R21 AR062880** (Archer-Swygert) 4/20/2012 - 3/31/2014  
NIAMS Role: Co-investigator  
Cognitive-Behavioral Based Physical Therapy: Improving Surgical Spine Outcomes

The major goal of this project is to study the efficacy of a brief cognitive-behavioral based PT (CBPT) intervention in patients at-risk for poor outcomes following lumbar spine surgery for degenerative conditions.

**1P20 DK097782** (Hayward) 9/29/2012 - 7/31/2014  
NIDDK Role: Co-investigator  
Obesity, Inflammation, and Resistance to BPH

This project aims to determine the role of obesity in the development of benign prostatic hyperplasia (BPH).

**1R03 CA173812** (Barocas) 1/1/2013 - 12/31/2014  
NCI Role: Co-investigator  
Trends in Surveillance for Localized Prostate Cancer and Barriers to Its Use

The major goal of this project is to identify differences in the patient and disease characteristics among men with prostate cancer who chose surveillance from two eras (1990's and 2010's).

**1R03 CA173807** (Barocas) 1/1/2013 - 12/31/2014  
NCI Role: Co-investigator  
The Quality of Care in Evaluating Patients Suspected of Having Bladder Cancer

This project aims to determine the current quality of evaluation of patients with hematuria, identify racial variation in the timely and complete evaluation of hematuria and determine the underlying reasons for such variation.

**IRG 58-009-53** (Esbenshade) 1/1/2013 - 12/31/2013  
ACS-IRG Role: Co-investigator  
ALL-Active: A Family-Based Lifestyle Program for Pediatric Acute Leukemia Patients

The major goal of this project is to develop a feasible and acceptable family-based nutrition and exercise intervention for overweight or overweight at risk patients during the maintenance phase of the ALL therapy, which can be further tested for efficacy in a larger scale randomized clinical trial.

**1R21 HL117676** (Bastarache) 4/1/2013 - 3/31/2015  
NHLBI Role: Co-investigator  
Free Hemoglobin Potentiates Pulmonary Vascular Dysfunction in Acute Lung Injury

The major goal of this project is to determine whether free hemoglobin is an important determinant of pulmonary vascular dysfunction in clinical ALI/ARDS.

**5R21 HL112656** (Ware) 5/1/2013 - 4/30/2014  
 NHLBI Role: Co-investigator  
 Inflammatory and Epithelial Injury

The major goal of this project is to validate SP-D and IL-8 as predictors of clinical outcome in 888 patients enrolled in the NHLBI ARDS Network Fluid and Catheter Treatment Trial (FACTT).

**VUMC 41268 / CE-12-11-4667** (Penson) 9/1/2013 - 8/31/2016  
 PCORI Role: Co-investigator  
 Generating Critical Patient-Centered Information for Decision Making in Localized Prostate Cancer

The major goal of this project is to better align clinical decision-making with individual patient values and preferences and inform patient choice of healthcare providers based on the quality of care provided.

**1R01 HS022640** (Penson) 9/30/2013 - 9/29/2018  
 AHRQ -CHOICE Role: Co-investigator  
 Comparative Effectiveness of Treatments for Localized Prostate Cancer

The major goals of this project are to compare the effectiveness and harms of contemporary surgery, radiation, and AS, to identify patient-level characteristics that influence the comparative effectiveness and harms of treatment, and to evaluate the association of quality of care with clinical and patient-reported outcomes.

**Pilot Project** (Ware) 10/1/2013 - 3/31/2015  
 NIH/VUMC Role: Co-investigator  
 VU Center for Molecular Toxicology Pilot Project

Funding awarded by the Vanderbilt University Center for Molecular Toxicology (NIEHS P30 ES000267).

**5UM1 CA186689-02** (Berlin) 3/1/2014 - 2/28/2019  
 NCI Role: Co-investigator  
 ViKTriY Early Clinical Trials Consortium

The ultimate purpose of this project is to define better approaches for the development of novel anticancer agents that capitalize on the ability to characterize tumors molecularly and find appropriate biomarkers to select patients most likely to respond to specific agents.

**5R01HL126176-02** (Ware) 12/1/2014 - 5/31/2021  
 NHLBI Role: Co-investigator  
 The GOLD Study: Goal of Open Lung Ventilation in Donors

The current supply of donor lungs is inadequate to meet the growing demand. Well-designed studies of scientifically compelling donor management strategies are urgently needed to improve the quality and availability of donor lungs. The proposed studies will test a new mechanical ventilator strategy to optimize donor lung function in order to increase utilization of donor lungs for transplantation.

**1K23 NS091524-01** (Patel) 4/1/2015 - 3/31/2020  
 NINDS Role: Co-investigator  
 DASH (Decreasing Adrenergic or Sympathetic Hyperactivity) After TBI Study

The major goals of this project are to determine the effect of adrenergic blockade on short-term ICU outcome after severe TBI, to determine the effect of adrenergic blockade on long-term cognitive and functional outcomes, and to determine the effect of adrenergic blockade on autonomic endpoints after severe TBI.

**W81XWH-15-1-0259** (Fowke) 9/1/2015 - 8/31/2017  
 DOD Role: Co-investigator  
 Magnesium Predicts High-Grade Prostate Cancer and a Poorer Prognosis among Black and White Men

The major goal of this project is to extend our prior epidemiologic analysis of Mg and PC in white men to evaluate the Mg-PC association among black men.

**2K24HL103836-06** (Ware) 6/1/2016 - 3/31/2021  
 NHLBI Role: Co-investigator  
 Midcareer Investigator Award in Patient-Oriented Research in Acute Lung Injury

The overall goal of this application is to provide support for Dr. Ware to continue to build and expand her research and mentoring programs in patient-oriented research in acute respiratory distress syndrome, a common cause of acute lung failure. In addition to providing support for mentoring activities, this award will support new research in the causes of acute respiratory distress syndrome after lung transplantation, the most common cause of death in the acute period after lung transplantation.

**5R21TR001723-02** (Aronoff) 9/1/2016 - 7/31/2018  
 NCATS Role: Co-investigator  
 Repurposing Misoprostol for Clostridium Difficile Colitis as Identified by pheWAS

The major goal of this project is to define the optimal dose and timing of administration of oral misoprostol in a mouse model of relapsing CDI and to determine the correlates of protection by misoprostol in a mouse model of relapsing CDI.

**5R01CA207401-02** (Hull) 12/20/2016 - 11/30/2021  
 NCI Role: Co-investigator  
 Increasing HPV Vaccination in Community-Based Pediatric Practices

Our central goal is to identify the optimal approach to implementing an evidence-based intervention for the uptake and completion of HPV vaccine among adolescents receiving care in the community, guided by implementation science theory.

**217-68001-26352** (Hull) 4/15/2017 - 4/14/2018  
 US Department of Agriculture Role: Co-investigator  
 Children Eating Well (CHEW) Smartphone Application for WIC families

**2P30DK058404-16** (Peek) 8/1/2017 - 5/31/2022  
 NCI Role: Co-investigator  
 Molecular and Cellular Basis for Digestive Diseases

The overall goal of the GiSMC is to provide murine models of bariatric surgery using procedures designed to reflect those performed in humans, liver and small bowel transplantation, and unique customized surgical models adapted to the needs of VDDRC members.

**1R01 HL135849-01** (Ware) 8/1/2017 - 4/30/2021  
 NHLBI Role: Co-investigator  
 Targeting Cell-Free Hemoglobin in Sepsis to Reduce Lung Microvascular permeability: Mechanistic and Translational Studies



Our primary goal is to translate these findings to new targeted therapies that will be tested in our novel human lung model as preparation for rapid translation to clinical trials in sepsis. In Aim 1, we will study the mechanism by which CFH increases microvascular permeability and acute lung injury through induction of mitochondrial oxidative injury and dysfunction in the isolated human lung, clinically relevant models of sepsis-induced ARDS and cultured pulmonary microvascular endothelial cells.

**5R01HD090061-02** (Gaddy)

9/1/2017 - 5/31/2022

NIH/NICHD

Role: Co-investigator

Determining the Contribution of Zinc Deficiency to Perinatal Group B Streptococcus Infections

This work will identify novel biomarkers for increased disease risk and cost-effective dietary or chemotherapeutic strategies that could improve pregnancy outcomes.

**1R01CA225005-01** (Friedman)

7/1/2018 - 6/30/2023

NCI

Role: Co-investigator

Research Into Visual Endpoints and RB Health Outcomes After Treatment

The RIVERBOAT Consortium: The overall goal of this effort is to organize the first and largest international multicenter, multi-racial and ethnic consortium of retinoblastoma (RB) survivors to study health outcomes and interrogate genotype-phenotype correlations of disease presentation.

**VUMC71798** (Penson)

10/1/2018 - 9/30/2021

UCLA/PCORI

Role: Co-investigator

Using PCORI Data to Drive Better Decisional Quality for Men with Localized Prostate Cancer

The purpose of this research is to further close the gap between evidence development and implementation of evidence into practice.

**1R01CA230352-02** (Barocas)

4/1/2019 - 3/31/2024

NCI

Role: Co-investigator

10-year Comparative Effectiveness and Harms of Treatments for Prostate Cancer

Our aim is to expand upon an established population-based cohort of approximately 3,000 men diagnosed with localized prostate cancer between 2011 and 2012, by collecting 10-year clinical and patient-reported information. This will enable comparisons of oncologic outcomes and quality of life outcomes among the treatment options, thereby providing information to power shared-decision making processes between patients and their providers. Specific Aims are: 1) Compare clinical outcomes in men undergoing contemporary radiation therapy, surgery and active surveillance for localized prostate cancer approximately 10 years after diagnosis; 2) Compare 10-year patient-reported outcomes among men undergoing contemporary radiation therapy, surgery and active surveillance for localized prostate cancer; and 3) Explore the extent to which patient characteristics modify comparative effectiveness and harms.

**1R01CA240093-01** (Friedman)

8/1/2019 - 7/31/2024

NCI

Role: Co-Investigator

Enhancing Cancer Care of Rural Dwellers Through Telehealth and Engagement (ENCORE)

The specific aims of this proposal are to: 1) evaluate the clinical effectiveness of a multi-level telehealth-based intervention for rural hospitals consisting of provider access to tumor board expertise that incorporates disease, patient, and molecular tumor characteristics, together with patient access to a supportive care intervention to improve cancer care delivery; and 2) identify the facilitators and barriers to future larger scale dissemination and implementation of the multi-level intervention, designed to enhance quality rural cancer care delivery.

**1R01DK129624-01** (Reynolds) 7/1/2021 - 6/30/2026  
 NIDDK Role: Co-Investigator  
 Stress and Anxiety Effects on Overactive Bladder: A Controlled Study

The proposed, interdisciplinary research that includes experts in Urology, Psychology, and chronic pain research will contribute to the fundamental knowledge of how psychology relates to bladder sensitivity and to psychological burdens in people with overactive bladder and how this can be measured effectively. This will allow future studies in which interventions to improve bladder health and incontinence can be implemented and outcomes recorded, with the goal of improving bladder health.

**1R21GM144915-01** (Bastarache) 12/1/2021 - 11/30/2025  
 NIGMS Role: Co-Investigator  
 The Sepsis ClinicAI Resource And Biorepository (SCARAB) Project

Here we propose to create a unique resource, the Sepsis ClinicAI Resource And Biorepository (SCARAB) registry comprising prospectively enrolled sepsis patients and critically ill control patients, their complete, de-identified medical records, automated phenotyping algorithms, and a complement of serial biological specimens to be used by the sepsis research community.

**1R01HL158906-01** (Ware) 9/1/2021 - 8/31/2025  
 NHLBI Role: Co-Investigator  
 Haptoglobin 2 variant and endothelial glycocalyx shedding in sepsis-induced ARDS

Our primary goal is to translate these findings to new targeted therapies that will be tested in our novel isolated human lung model as preparation for rapid translation to targeted clinical trials in sepsis.

**1UG3CA260318-01** (Friedman) 9/22/2021 - 8/31/2023  
 NCI Role: Co-Investigator  
 CAUSAL: Cohort to Augment the Understanding of Sarcoma Survivorship Across the Lifespan

Major Goals: Sarcomas represent a rare and highly heterogeneous subtype of tumors that may develop across the lifespan. In the United States (US), there are approximately 14,000 new cases annually, with approximately 65% survival. Aside from those included in pediatric cancer survivor cohort studies, there are no sarcoma survivor cohorts in which to systematically study recurrence, organ toxicity, function, quality of life, and survival as well as their predictors. We propose to address these critical gaps in knowledge by establishing a cohort of approximately 2100 sarcoma survivors through the Vanderbilt University Medical Center (VUMC) Sarcoma Treatment Center, which is amongst the largest sarcoma programs in the US, in existence since 1987. In this cohort, we will systematically collect repeated information on disease, treatment, response, relapse, treatment-related toxicity, sociodemographics, lifestyle, functional status, quality of life, physical health outcomes, and survival, together with biospecimens (tumor tissue and peripheral blood samples).

**VUMC9441/2017-68001-26352** (Hull) 04/15/2017 – 04/30/2022  
 University of Kentucky/US Dept of Agriculture Role: Co-Investigator  
 Children Eating Well (CHEW) Smartphone Application for WIC Families

The objectives of this proposal are to: 1) Develop and maintain version 2.0 of the CHEW app in English and Spanish, and disseminate it to the WIC program to implement in WIC clinics across TN (Extension); 2) Conduct process, outcome, and economic evaluation of the CHEW app implementation in the TN WIC program (Research); and 3) Train high school, undergraduate, and graduate students and post-doctoral fellows in the use of technologies for childhood obesity prevention (Education).

**1R01DK128293-01A1** (Reynolds) 9/24/2021 –07/31/2025  
NIDDK Role: Co-Investigator  
Central Sensitization and Psychosocial Impacts on Overactive Bladder

Major Goals: The proposed, interdisciplinary research that includes experts in Urology, Psychology, and chronic pain research will contribute to the fundamental knowledge of how central sensitization relates to bladder sensitivity and to psychological burdens in people with overactive bladder and how this can be measured effectively.

**VUMC87724** (Miller) 08/03/21 – 12/31/21  
Mayo Clinic Arizona Role: Biostatistician  
Prospective Randomized Double Blind Clinical Trial to Compare Holum Laser Lithotripsy With and Without Moses Laser Technology for the Ureteroscopic Treatment of Nephrolithiasis

Major Goals: The objectives of the EDGE Consortium is to (i) improve outcomes in patients suffering with kidney stone disease by conducting high quality translational research, (ii) to provide an infrastructure to facilitate such high quality research in collaboration with clinicians, scientists and researchers at Mayo Clinic Arizona and other member Sites.

**1R01DK129202-01A1** (Hsi) 04/01/2022 - 03/31/2025  
NIDDK Role: Co-Investigator  
Randomized Trial of Empiric Versus Selective Preventative Strategies for Kidney Stone Disease

This study will evaluate comparative effectiveness of selective versus empiric intervention strategies on urinary risk profiles of kidney stone patients.