

Emily C. Zabor

Curriculum Vitae

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Education

- 2012–Present **Doctor of Public Health**, *Columbia University*, New York, NY, Biostatistics.
Expected graduation May 2018
Dissertation topic: Statistical methods for the study of etiologic heterogeneity
Advisors: Colin Begg and Shuang Wang
- 2008–2010 **Master of Science**, *The University of Minnesota*, Minneapolis, MN, Biostatistics.
Thesis topic: Adaptive controlled dose escalation with multiple individual covariates in phase I clinical trials
Advisor: Brad Colin
- 1999–2003 **Bachelor of Arts**, *Grinnell College*, Grinnell, IA, Anthropology.

Experience

Professional

- 2015–Present **Research Biostatistician II**, MEMORIAL SLOAN KETTERING CANCER CENTER, New York, NY.
Department of Epidemiology & Biostatistics
- 2012–2015 **Research Biostatistician**, MEMORIAL SLOAN KETTERING CANCER CENTER, New York, NY.
Department of Epidemiology & Biostatistics
- 2010–2012 **Assistant Research Biostatistician**, MEMORIAL SLOAN KETTERING CANCER CENTER, New York, NY.
Department of Epidemiology & Biostatistics

Research

- 2009 **Summer Intern in Biomedical Research**, NATIONAL INSTITUTES OF HEALTH, Bethesda, MD.
Eunice Kennedy Shriver National Institute for Child Health & Human Development
- 2009–2010 **Research Assistant**, THE UNIVERSITY OF MINNESOTA, Minneapolis, MN.
Coordinating Centers for Biometric Research
- 2008–2009 **Research Assistant**, THE UNIVERSITY OF MINNESOTA, Minneapolis, MN.
Division of Health Policy and Management

Teaching

- 2016–2017 **Adjunct Professor**, HUNTER COLLEGE, New York, NY.
Fundamentals of Biostatistics
- 2008–2010 **Teaching Assistant**, THE UNIVERSITY OF MINNESOTA, Minneapolis, MN.
Introduction to Biostatistics
Advanced Topics in Clinical Trials

Publications

Published

- 2017 **Zabor, E. C.**, & Begg, C. B. (2017). A comparison of statistical methods for the study of etiologic heterogeneity. *Stat Med*.
- 2017 Teo, M. Y., Bambury, R. M., **Zabor, E. C.**, Jordan, E., Al-Ahmadie, H., Boyd, M. E., . . . Rosenberg, J. E. (2017). DNA Damage Response and Repair Gene Alterations Are Associated with Improved Survival in Patients with Platinum-Treated Advanced Urothelial Carcinoma. *Clin Cancer Res*, 23(14), 3610-3618.
- 2017 Schwitzer, E., Orlow, I., **Zabor, E. C.**, Begg, C. B., Berwick, M., Thomas, N. E., . . . Jones, L. W. (2017). No association between prediagnosis exercise and survival in patients with high-risk primary melanoma: A population-based study. *Pigment Cell Melanoma Res*, 30(4), 424-427.
- 2017 Pilewskie, M., **Zabor, E. C.**, Mamtani, A., Barrio, A. V., Stempel, M., & Morrow, M. (2017). The Optimal Treatment Plan to Avoid Axillary Lymph Node Dissection in Early-Stage Breast Cancer Patients Differs by Surgical Strategy and Tumor Subtype. *Ann Surg Oncol*.
- 2017 McCartan, D. P., **Zabor, E. C.**, Morrow, M., Van Zee, K. J., & El-Tamer, M. B. (2017). Oncologic Outcomes After Treatment for MRI Occult Breast Cancer (pT0N+). *Ann Surg Oncol*.
- 2017 Mauguén, A., **Zabor, E. C.**, Thomas, N. E., Berwick, M., Seshan, V. E., & Begg, C. B. (2017). Defining Cancer Subtypes With Distinctive Etiologic Profiles: An Application to the Epidemiology of Melanoma. *J Am Stat Assoc*, 112(517), 54-63.
- 2017 Gilbert, E., **Zabor, E. C.**, Stempel, M., Mangino, D., Heerdt, A., & Pilewskie, M. (2017). Differences Among a Modern Cohort of BRCA Mutation Carriers Choosing Bilateral Prophylactic Mastectomies Compared to Breast Surveillance. *Ann Surg Oncol*.
- 2017 Francis, J. H., Brodie, S. E., Marr, B., **Zabor, E. C.**, Mondesire-Crump, I., & Abramson, D. H. (2017). Efficacy and Toxicity of Intravitreal Chemotherapy for Retinoblastoma: Four-Year Experience. *Ophthalmology*, 124(4), 488-495.
- 2017 Casuscelli, J., Weinhold, N., Gundem, G., Wang, L., **Zabor, E. C.**, Drill, E., . . . Hsieh, J. J. (2017). Genomic landscape and evolution of metastatic chromophobe renal cell carcinoma. *JCI Insight*, 2(12).
- 2017 Campbell, P. T., Rebbeck, T. R., Nishihara, R., Beck, A. H., Begg, C. B., Bogdanov, A. A., . . . Ogino, S. (2017). Proceedings of the third international molecular pathological epidemiology (MPE) meeting. *Cancer Causes Control*, 28(2), 167-176.
- 2017 Boursiquot, B. C., **Zabor, E. C.**, Glezerman, I. G., & Jaimes, E. A. (2017). Hypertension and VEGF (Vascular Endothelial Growth Factor) Receptor Tyrosine Kinase Inhibition: Effects on Renal Function. *Hypertension*.
- 2017 Begg, C. B., Rice, M. S., **Zabor, E. C.**, & Tworoger, S. S. (2017). Examining the common aetiology of serous ovarian cancers and basal-like breast cancers using double primaries. *Br J Cancer*.
- 2017 Alanee, S. R., Shah, S., **Zabor, E. C.**, Vijai, J., Ostrovnaya, I., Garcia-Grossman, I. R., . . . Bajorin, D. F. (2017). Evaluating the association of multiple single nucleotide polymorphisms with response to gemcitabine and platinum combination chemotherapy in urothelial carcinoma of the bladder. *Int J Clin Pharmacol Ther*, 55 (2017)(3), 203-209.

- 2016 **Zabor, E. C.**, Heller, G., Schwartz, L. H., Chapman, P. B. (2016). Correlating Surrogate Endpoints with Overall Survival at the Individual Patient Level in BRAFV600E-Mutated Metastatic Melanoma Patients Treated with Vemurafenib. *Clin Cancer Res*, 22(6), 1341-1347.
- 2016 **Zabor, E. C.**, Furberg, H., Mashni, J., Lee, B., Jaimes, E. A., Russo, P. (2016). Factors Associated with Recovery of Renal Function following Radical Nephrectomy for Kidney Neoplasms. *Clin J Am Soc Nephrol*, 11(1), 101-107.
- 2016 Yu, A. F., Raikhelkar, J., **Zabor, E. C.**, Tonorezos, E. S., Moskowitz, C. S., Adsuar, R., . . . Liu, J. E. (2016). Two-Dimensional Speckle Tracking Echocardiography Detects Subclinical Left Ventricular Systolic Dysfunction among Adult Survivors of Childhood, Adolescent, and Young Adult Cancer. *Biomed Res Int*, 2016, 9363951.
- 2016 Tully, C. M., Apolo, A. B., **Zabor, E. C.**, Regazzi, A. M., Ostrovnaya, I., Furberg, H. F., . . . Bajorin, D. F. (2016). The high incidence of vascular thromboembolic events in patients with metastatic or unresectable urothelial cancer treated with platinum chemotherapy agents. *Cancer*, 122(5), 712-721.
- 2016 Thong, A. E., Petruzella, S., Orlow, I., **Zabor, E. C.**, Ehdaie, B., Ostroff, J. S., . . . Barnes, H. F. (2016). Accuracy of Self-reported Smoking Exposure Among Bladder Cancer Patients Undergoing Surveillance at a Tertiary Referral Center. *Eur Urol Focus*, 2(4), 441-444.
- 2016 Spitzer, B., Perales, M. A., Kernan, N. A., Prockop, S. E., **Zabor, E. C.**, Webb, N., . . . Boulad, F. (2016). Second Allogeneic Stem Cell Transplantation for Acute Leukemia Using a Chemotherapy-Only Cyto reduction with Clofarabine, Melphalan, and Thiotepa. *Biol Blood Marrow Transplant*, 22(8), 1449-1454.
- 2016 Murray, K. S., **Zabor, E. C.**, Spaliviero, M., Russo, P., Bazzi, W. M., Musser, J. E., . . . Furberg, H. (2016). Second primary malignancies in renal cortical neoplasms: an updated evaluation from a single institution. *World J Urol*, 34(12), 1667-1672.
- 2016 Mauguen, A., **Zabor, E. C.**, Thomas, N. E., Berwick, M., Seshan, V. E., & Begg, C. B. (2016). Defining Cancer Sub-Types with Distinctive Etiologic Profiles: An Application to the Epidemiology of Melanoma. *Journal of the American Statistical Association*, 1-39.
- 2016 Hay, J. L., **Zabor, E. C.**, Kumar, J., Brennessel, D., Kemeny, M. M., Lubetkin, E. I. (2016). Cancer beliefs and patient activation in a diverse, multilingual primary care sample. *Psychooncology*, 25(9), 1071-1078.
- 2016 Desai, N. B., Scott, S. N., **Zabor, E. C.**, Cha, E. K., Hreiki, J., Sfakianos, J. P., . . . Iyer, G. (2016). Genomic characterization of response to chemoradiation in urothelial bladder cancer. *Cancer*, 122(23), 3715-3723.
- 2016 Dahi, P. B., Morawa, E., Perales, M. A., **Zabor, E. C.**, Devlin, S. M., Maloy, M., . . . Giral, S. A. (2016). Low incidence of GvHD with T-cell depleted allografts facilitates further treatments for post-transplantation relapse in AML and MDS. *Bone Marrow Transplant*, 51(7), 991-993.
- 2016 Bagrodia, A., Lee, B. H., Lee, W., Cha, E. K., Sfakianos, J. P., Iyer, G., . . . Feldman, D. R. (2016). Genetic Determinants of Cisplatin Resistance in Patients With Advanced Germ Cell Tumors. *J Clin Oncol*, 34(33), 4000-4007.
- 2016 Bagrodia, A., Cha, E. K., Sfakianos, J. P., **Zabor, E. C.**, Bochner, B. H., Al-Ahmadie, H. A., . . . Coleman, J. A. (2016). Genomic Biomarkers for the Prediction of Stage and Prognosis of Upper Tract Urothelial Carcinoma. *J Urol*, 195(6), 1684-1689.

- 2016 Albiges, L., Hakimi, A. A., Xie, W., McKay, R. R., Simantov, R., Lin, X., . . . Choueiri, T. K. (2016). Body Mass Index and Metastatic Renal Cell Carcinoma: Clinical and Biological Correlations. *J Clin Oncol*.
- 2016 Al-Ahmadie, H. A., Iyer, G., Lee, B. H., Scott, S. N., Mehra, R., Bagrodia, A., . . . Solit, D. B. (2016). Frequent somatic CDH1 loss-of-function mutations in plasmacytoid variant bladder cancer. *Nat Genet*, 48(4), 356-358.
- 2015 Sfakianos, J. P., Cha, E. K., Iyer, G., Scott, S. N., **Zabor, E. C.**, Shah, R. H., . . . Coleman, J. A. (2015). Genomic Characterization of Upper Tract Urothelial Carcinoma. *Eur Urol*, 68(6), 970-977.
- 2015 Lubetkin, E. I., **Zabor, E. C.**, Isaac, K., Brennessel, D., Kemeny, M. M., Hay, J. L. (2015). Health literacy, information seeking, and trust in information in Haitians. *Am J Health Behav*, 39(3), 441-450.
- 2015 Kim, P. H., Cha, E. K., Sfakianos, J. P., Iyer, G., **Zabor, E. C.**, Scott, S. N., . . . Bochner, B. H. (2015). Genomic predictors of survival in patients with high-grade urothelial carcinoma of the bladder. *Eur Urol*, 67(2), 198-201.
- 2015 Begg, C. B., Orlow, I., **Zabor, E. C.**, Arora, A., Sharma, A., Seshan, V. E., Bernstein, J. L. (2015). Identifying Etiologically Distinct Sub-Types of Cancer: A Demonstration Project Involving Breast Cancer. *Cancer Med*, 4(9), 1432-1439.
- 2015 Bambury, R. M., Benjamin, D. J., Chaim, J. L., **Zabor, E. C.**, Sullivan, J., Garcia-Grossman, I. R., . . . Rosenberg, J. E. (2015). The safety and efficacy of single-agent pemetrexed in platinum-resistant advanced urothelial carcinoma: a large single-institution experience. *Oncologist*, 20(5), 508-515.
- 2014 Sfakianos, J. P., Hakimi, A. A., Kim, P. H., **Zabor, E. C.**, Mano, R., Bernstein, M., . . . Russo, P. (2014). Outcomes in patients undergoing nephrectomy for renal cancer on chronic anticoagulation therapy. *Eur J Surg Oncol*, 40(12), 1700-1705.
- 2014 Mano, R., Hakimi, A. A., **Zabor, E. C.**, Bury, M. A., Donati, O. F., Karlo, C. A., . . . Russo, P. (2014). Association between visceral and subcutaneous adiposity and clinicopathological outcomes in non-metastatic clear cell renal cell carcinoma. *Can Urol Assoc J*, 8(9-10), E675-680.
- 2014 Lubetkin, E. I., **Zabor, E. C.**, Brennessel, D., Kemeny, M. M., Hay, J. L. (2014). Beyond demographics: differences in patient activation across new immigrant, diverse language subgroups. *J Community Health*, 39(1), 40-49.
- 2014 Hayes, S. A., Soff, G. A., **Zabor, E. C.**, Moskowitz, C. S., Liu, C. C., Ginsberg, M. S. (2014). Clinical consequences of an indeterminate CT pulmonary angiogram in cancer patients. *Clin Imaging*, 38(5), 637-640.
- 2014 Ehdaie, B., Furberg, H., **Zabor, E. C.**, Hakimi, A. A., Russo, P. (2014). Comprehensive assessment of the impact of cigarette smoking on survival of clear cell kidney cancer. *J Urol*, 191(3), 597-602.
- 2014 Do, R. K., Katz, S. S., Gollub, M. J., Li, J., LaFemina, J., **Zabor, E. C.**, . . . Allen, P. J. (2014). Interobserver agreement for detection of malignant features of intraductal papillary mucinous neoplasms of the pancreas on MDCT. *AJR Am J Roentgenol*, 203(5), 973-979.
- 2014 Begg, C. B., Seshan, V. E., **Zabor, E. C.**, Furberg, H., Arora, A., Shen, R., . . . Hsieh, J. J. (2014). Genomic investigation of etiologic heterogeneity: methodologic challenges. *BMC Med Res Methodol*, 14, 138.

- 2013 **Zabor, E. C.**, Li, Y., Thornton, L. M., Shuman, M. R., Bulik, C. M., Lichtenstein, P., . . . Furberg, H. (2013). Initial reactions to tobacco use and risk of future regular use. *Nicotine Tob Res*, 15(2), 509-517.
- 2013 **Zabor, E. C.**, Gonen, M., Chapman, P. B., Panageas, K. S. (2013). Dynamic prognostication using conditional survival estimates. *Cancer*, 119(20), 3589-3592.
- 2013 Weiss, M. J., Ito, H., Araujo, R. L., **Zabor, E. C.**, Gonen, M., D'Angelica, M. I., . . . Jarnagin, W. R. (2013). Hepatic pedicle clamping during hepatic resection for colorectal liver metastases: no impact on survival or hepatic recurrence. *Ann Surg Oncol*, 20(1), 285-294.
- 2013 Rink, M., **Zabor, E. C.**, Furberg, H., Xylinas, E., Ehdaie, B., Novara, G., . . . Shariat, S. F. (2013). Impact of smoking and smoking cessation on outcomes in bladder cancer patients treated with radical cystectomy. *Eur Urol*, 64(3), 456-464.
- 2013 Rink, M., Furberg, H., **Zabor, E. C.**, Xylinas, E., Babjuk, M., Pycha, A., . . . Shariat, S. F. (2013). Impact of smoking and smoking cessation on oncologic outcomes in primary non-muscle-invasive bladder cancer. *Eur Urol*, 63(4), 724-732.
- 2013 Ridge, C. A., Huang, J., Cardoza, S., **Zabor, E. C.**, Moskowitz, C. S., Zakowski, M. F., Ginsberg, M. S. (2013). Comparison of multiplanar reformatted CT lung tumor measurements to axial tumor measurement alone: impact on maximal tumor dimension and T stage. *AJR Am J Roentgenol*, 201(5), 959-963.
- 2013 Pannu, H. K., Ma, W., **Zabor, E. C.**, Moskowitz, C. S., Barakat, R. R., Hricak, H. (2013). Enhancement of ovarian malignancy on clinical contrast enhanced MRI studies. *ISRN Obstet Gynecol*, 2013, 979345.
- 2013 Moskowitz, C. S., **Zabor, E. C.**, Jochelson, M. (2013). Response to the "letter to the editor" by Dr. Thomas Filleron. *Breast J*, 19(2), 227.
- 2013 McErlean, A., Panicek, D. M., **Zabor, E. C.**, Moskowitz, C. S., Bitar, R., Motzer, R. J., . . . Ginsberg, M. S. (2013). Intra- and interobserver variability in CT measurements in oncology. *Radiology*, 269(2), 451-459.
- 2013 McErlean, A., Huang, J., **Zabor, E. C.**, Moskowitz, C. S., Ginsberg, M. S. (2013). Distinguishing benign thymic lesions from early-stage thymic malignancies on computed tomography. *J Thorac Oncol*, 8(7), 967-973.
- 2013 Lefkowitz, R. A., Landa, J., Hwang, S., **Zabor, E. C.**, Moskowitz, C. S., Agaram, N. P., Panicek, D. M. (2013). Myxofibrosarcoma: prevalence and diagnostic value of the "tail sign" on magnetic resonance imaging. *Skeletal Radiol*, 42(6), 809-818.
- 2013 Iyer, G., Al-Ahmadie, H., Schultz, N., Hanrahan, A. J., Ostrovnaya, I., Balar, A. V., . . . Solit, D. B. (2013). Prevalence and co-occurrence of actionable genomic alterations in high-grade bladder cancer. *J Clin Oncol*, 31(25), 3133-3140.
- 2013 Hakimi, A. A., Furberg, H., **Zabor, E. C.**, Jacobsen, A., Schultz, N., Ciriello, G., . . . Russo, P. (2013). An epidemiologic and genomic investigation into the obesity paradox in renal cell carcinoma. *J Natl Cancer Inst*, 105(24), 1862-1870.
- 2013 Ehdaie, B., Furberg, H., **Zabor, E. C.**, Ostroff, J. S., Shariat, S. F., Bochner, B. H., . . . Dalbagni, G. (2013). Impact of smoking status at diagnosis on disease recurrence and death in upper tract urothelial carcinoma. *BJU Int*, 111(4), 589-595.
- 2013 Begg, C. B., **Zabor, E. C.**, Bernstein, J. L., Bernstein, L., Press, M. F., Seshan, V. E. (2013). A conceptual and methodological framework for investigating etiologic heterogeneity. *Stat Med*, 32(29), 5039-5052.

- 2012 Moskowitz, C. S., **Zabor, E. C.**, Jochelson, M. (2012). Breast imaging: understanding how accuracy is measured when lesions are the unit of analysis. *Breast J*, 18(6), 557-563.
- 2012 Kadota, K., Suzuki, K., Kachala, S. S., **Zabor, E. C.**, Sima, C. S., Moreira, A. L., . . . Travis, W. D. (2012). A grading system combining architectural features and mitotic count predicts recurrence in stage I lung adenocarcinoma. *Mod Pathol*, 25(8), 1117-1127.
- 2012 Kadota, K., Colovos, C., Suzuki, K., Rizk, N. P., Dunphy, M. P., **Zabor, E. C.**, . . . Adusumilli, P. S. (2012). FDG-PET SUVmax combined with IASLC/ATS/ERS histologic classification improves the prognostic stratification of patients with stage I lung adenocarcinoma. *Ann Surg Oncol*, 19(11), 3598-3605.
- 2012 Begg, C. B., **Zabor, E. C.** (2012). Detecting and exploiting etiologic heterogeneity in epidemiologic studies. *Am J Epidemiol*, 176(6), 512-518.
- 2012 Abramson, D. H., Marr, B. P., Dunkel, I. J., Brodie, S., **Zabor, E. C.**, Driscoll, S. J., Gobin, Y. P. (2012). Intra-arterial chemotherapy for retinoblastoma in eyes with vitreous and/or subretinal seeding: 2-year results. *Br J Ophthalmol*, 96(4), 499-502.
- 2011 Shree, T., Olson, O. C., Elie, B. T., Kester, J. C., Garfall, A. L., Simpson, K., . . . Joyce, J. A. (2011). Macrophages and cathepsin proteases blunt chemotherapeutic response in breast cancer. *Genes Dev*, 25(23), 2465-2479.
- 2011 Brader, P., Abramson, S. J., Price, A. P., Ishill, N. M., **Zabor, E. C.**, Moskowitz, C. S., . . . Ginsberg, M. S. (2011). Do characteristics of pulmonary nodules on computed tomography in children with known osteosarcoma help distinguish whether the nodules are malignant or benign? *J Pediatr Surg*, 46(4), 729-735.
- 2010 **Zabor, E. C.**, Klebanoff, M., Yu, K., Zhang, J., Nansel, T., Andrews, W., . . . Jeffcoat, M. (2010). Association between periodontal disease, bacterial vaginosis, and sexual risk behaviours. *J Clin Periodontol*, 37(10), 888-893.

Presentations

- 2017 Dimension reduction in the study of etiologic heterogeneity, Oral presentation, JSM
- 2017 A comparison of statistical methods for the study of etiologic heterogeneity, Poster, SER
- 2017 A comparison of statistical methods for the study of etiologic heterogeneity, Poster, ENAR
- 2017 A comparison of statistical methods for the study of etiologic heterogeneity, Biostatistics Seminar Series, Memorial Sloan Kettering Cancer Center
- 2016 Demonstration of utility functions for R Markdown reports in Word, R User Group, Memorial Sloan Kettering Cancer Center
- 2016 A review of statistical methods for evaluating etiologic heterogeneity, Oral presentation, Third International Molecular Pathologic Epidemiology Meeting
- 2015 Longitudinal data analysis, Masters Seminar Series, Memorial Sloan Kettering Cancer Center
- 2011 Binary recursive partitioning with rpart, Masters Seminar Series, Memorial Sloan Kettering Cancer Center
- 2011 Initial reactions to tobacco and risk of future regular tobacco use, Poster, Third North American Congress of Epidemiology
- 2010 Two methodological approaches to a longitudinal study of the symptoms associated with bacterial vaginosis, Poster, The University of Minnesota Student Research Showcase
- 2010 Association between periodontal disease, bacterial vaginosis, and sexual risk behaviours, Oral presentation, American Association for Dental Research Meetings

- 2009 Two methodological approaches to a longitudinal study of the symptoms associated with bacterial vaginosis, Poster, National Institutes of Health Summer Intern Research Day

Memberships

- 2016-Present Board member, R-Ladies NYC
2010-Present American Statistical Association
2010-Present Eastern North American Region of the International Biometric Society

Honors and awards

- 2017 American Statistical Association Section on Statistics in Epidemiology SER Travel Award
2009 Outstanding Teaching Assistant Award, The University of Minnesota
2003 Ralph A. Leubben Prize for Anthropology, Grinnell College
2002-2003 Mortar Board Honor Society, Grinnell College