

Elizabeth A. S. Koehler

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Education: B.S. in Mathematics with Statistics Concentration, Colorado State University, Fort Collins, CO

Graduation Date: May 2004 (completed in three years, August 2001-May 2004)

M.S. in Biostatistics, University of Washington, Seattle, WA

Completion Date: August 2007

Thesis Title: Exploration of Monte Carlo Error

Statistical Strengths:

Monte Carlo methods, survival analysis and competing risks, correlated data analysis, binary data analysis, resampling methods, designing randomization schemes, and statistical graphing techniques

Statistical Programming Strengths:

R, STATA, SAS, S-Plus

Employment History:

Vanderbilt University Department of Biostatistics

Vanderbilt-Ingram Cancer Center *Biostatistician II*

October 2007 – October 2009

Biostatistician III

October 2009 – present

Summary

- collaborate with a variety of investigators (at least 43 by August 10, 2009) mostly on projects pertaining to cancer research
- methods used daily: logistic regression, survival analysis, graphical summaries, randomization schemes, competing risks regression, and correlated data techniques.
- methods used less often: resampling, cluster, diagnostic, and simulation methods.

Responsibilities

- prepare statistical sections and review R01 submissions
- design randomized experiments
- write statistical methods and results sections of manuscripts
- write responses to reviewers regarding statistical questions
- participate in setting up an international data sharing collaboration

Service Activities

- present various statistical ideas at seminars, journal club, MSCI substitute lecturing
- develop a function to create a balanced block crossover randomization design
<http://data.vanderbilt.edu/~graywh/brew/elizabeth.html>
- develop R graphics CQI
- participate as committee member of Journal Club CQI project
- attend and actively participate in MS search committee activities
- attend and actively participate in Monday and Friday biostatistics clinics

Group Health

Center for Health Studies

Research Assistant

June 2006 – August 2007

- collaborate with a variety of investigators on projects involving logistic regression and item response theory
- aid in manuscript development and writing

UW Biostatistics Department

Teaching Assistant

July 2006 – August 2006

- prepare for and run hour discussion sections four days of the week
- grade homework, hold office hours

5. **Koehler E**, Brown E, Haneuse S: On the assessment of Monte Carlo error in simulation-based statistical analyses. *The American Statistician*, 63(2): 155–162, 2009.
6. Estes A, Munson J, Dawson G, **Koehler E**, Zhou XH, Abbott R: Parenting stress and psychological functioning among mothers of preschool children with autism and developmental delay. *Autism*, 13(4): 375-387, 2009.
7. Sisler I, **Koehler E**, Koyama T, Domm J, Ryan R, Levine J, Pulsipher M, Haut P, Schultz K, Taylor D, Frangoul H: Impact of Conditioning Regimen in Allogeneic Hematopoietic Stem Cell Transplant for Children with Acute Myelogenous Leukemia beyond First Complete Remission: A Pediatric Blood and Marrow Transplant Consortium (PBMTTC) Study. *Biology of Blood and Marrow Transplant*, 15 (12): 1620-1627, 2009.
8. Diaz R, Jaboin J, Morales-Paliza M, **Koehler E**, Phillips J, Stinson S, Gilbert J, Chung CH, Murphy BA, Burkey B, Yarbrough WG, Murphy PB, Shyr Y, Cmelak AJ: Hypothyroidism as a Consequence of Intensity-Modulated Radiation Therapy (IMRT) with Concurrent Taxane-Based Chemotherapy for Locally-Advanced Head and Neck Cancer (LAHNC). *International Journal of Radiation Oncology, Biology, Physics* (in press corrected proof available online July 6, 2009) .
9. Lockhart A, Rothenberg M, Dupont J, Cooper W, Chevalier P, Sternas L, Buzenet G, **Koehler E**, Sosman J, Schwartz L, Gultekin D, Koutcher J, Donnelly E, Andal R, Dancy I, Spriggs D, Tew W: A Phase I Study of Intravenous Vascular Endothelial Growth Factor Trap, Aflibercept, in Patients with Advanced Solid Tumors. *Journal of Clinical Oncology* , 28(2): 207-214, 2010.
10. Su Y, Amiri K, Horton L, Yu Y, Ayers G, **Koehler E**, Kelley M, Puzanov I, Richmond A, Sosman J: A Phase I Trial of Bortezomib with Temozolomide in Patients with Advanced Melanoma: Toxicities, Anti-tumor Effects, and Modulation of Therapeutic Targets. *Clinical Cancer Research*, 16(1): 348-357, 2010.

Accepted

11. Chong P, **Koehler E**, Shyr Y, Weikert D, Watson J, Rowland J, Lee D: Driving with an Immobilized Upper Extremity: A Randomized Higher-Order Crossover Trial. Submitted to *Journal of Bone and Joint Surgery* (August 17, 2009, response sent Dec 8, 2009).

Presentations (* indicates upcoming):

Vanderbilt Department of Biostatistics Continuing Education; October 2009 "Resampling: Trick or Treat?"	Speaker
MSCI Biostat I; August 24, 2009 "Beyond the Basics: Statisticians as Your Guide through the Unknown"	Guest Lecturer
Vanderbilt Department of Biostatistics Journal Club; July 9, 2009 "Review of Peduzzi's 10 Events per Variable Rule"	Speaker
Vanderbilt Ingram Cancer Center Biostatistics Workshop; February 20, 2009 "Complications in Survival Analysis"	Speaker
MSCI Biostat I; September 25, 2008 "Introduction to Competing Risks"	Guest Lecturer

Joint Statistical Meeting; August 3, 2008; Denver, CO <i>“On The Assessment of Monte Carlo Error in Statistical Experiments”</i>	Contributing Speaker
Vanderbilt Department of Biostatistics Seminar; April 9, 2008 <i>“Simple Methods to Assess Monte Carlo Error”</i>	Speaker
UW Biostatistics Informal Seminar; April 25, 2007 <i>“An Exploration of Monte Carlo Error”</i>	Speaker
UW Biostatistics Informal Seminar; May 3, 2006 <i>“Got Class? An Introduction to Latent Class Analysis and Taxometric Methods”</i>	Speaker
International Conference on Health Policy Research; 2005; Boston, MA <i>“Latent Class Structure of IQ in Preschool Children with Autism”</i>	Contributing Speaker

Extramural Activities:

- Judge for ASA Project Competition 2009 for high school student statistics projects
 - ASA Middle Tennessee Chapter President March 2009 - present
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Honors and Awards:

Colorado State University, Fort Collins, CO

- Colorado State Distinguished Scholar Scholarship; 2001-2002, 2002-2003, 2003-2004
- College of Natural Sciences Alumni Scholarship; 2001-2002
- Achievement Rewards for College Scientists; 2002-2003, 2003-2004
- Colorado State Math Department Magnus Scholarship; 2003-2004
- Maurice Davies Award from Colorado-Wyoming Chapter of the ASA, 2004