

Curriculum Vitae

Amber J. Hackstadt

Vanderbilt University Medical Center
Department of Biostatistics
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Education:

Southeast Missouri State University, Cape Girardeau, MO
B.S. in Mathematics and Mathematics Education, 2003
Summa Cum Laude

Southeast Missouri State University, Cape Girardeau, MO
Masters of Natural Science in Mathematics, 2005
Thesis: *Behrens-Fisher Problem for Bivariate Dichotomous Data*

Colorado State University, Fort Collins, CO
M.S. in Statistics, 2008
Ph.D. in Statistics, 2011
Dissertation: *Bayesian Shape-restricted Regressions Splines*

Johns Hopkins University, Baltimore, MD
Postdoctoral fellowship in Department of Biostatistics, 2014
Environmental Biostatistics

Academic Appointments:

Research Assistant Professor, Department of Biostatistics, Vanderbilt University Medical Center, 2015-Present

Other Employment:

Instructor, Department of Mathematics, Southeast Missouri State University, Cape Girardeau, MO, 2003-2005

Instructor, Department of Statistics, Colorado State University, Fort Collins, CO, 2006-2009

Research Assistant, Center for Bioinformatics, Colorado State University, Fort Collins, CO, 2008

Biometric Intern, U.S. Fish and Wildlife Service, Anchorage, Alaska, Summer 2008

Online Course Coordinator, Department of Statistics, Colorado State University, Fort Collins, CO, 2009-2010

Statistical Consultant, Franklin A. Graybill Statistical Laboratory, Colorado State University, Fort Collins, CO, 2011

Biostatistician, Social & Scientific Systems, Inc. Durham, NC, 2014-2015

Professional Organizations:

American Statistical Association (ASA)

International Biometric Society - Eastern North American Region (ENAR)

Professional Activities:

Intramural

Member of Graduate Program Committee, Department of Biostatistics, Vanderbilt University, 2015-Present

Biostatistics staff promotions committee, Department of Biostatistics, Vanderbilt University, Jan 2018-Present

Extramural

Reviewed for the following journals:

American Journal of Epidemiology

Biostatistics

BMC Bioinformatics

BMJ Open

Communications in Statistics – Theory and Methods

Environmental International

Transportation Research Part D: Transport and Environment

Academic Awards

B. F. and Carrie Woodburn Johnson Scholarship, 2002-2003, Southeast Missouri State University

George A. Penzel Family Scholarship, 2002-2003, Southeast Missouri State University

Russel and Elnora Michel Mathematics Scholarship, 2001-2003, Southeast Missouri State University

Cecil Elsie Gross Education Scholarship, 2001-2003, Southeast Missouri State University

Homer Roscoe and Carrie Findley Bolon Scholarship, 2001-2002, Southeast Missouri State University

Elmer Remmenga Scholarship in Applied Statistics, 2007, Colorado State University

Student Poster Competition Winner, Graybill Conference, 2011, Colorado State University

Teaching Activities:

Lab Instructor

STAT204 Statistics for Business Students, State University, Fort Collins, CO 2005-2006

Instructor

BIOS6341 Introduction to Probability and Statistical Theory, Vanderbilt University, Nashville, TN
2018

MA153 Intermediate Algebra, Three Rivers Community College, Popular Bluff, MO
2004

MA095 Intermediate Algebra, Southeast Missouri State University, Cape Girardeau, MO
2003-2005

STAT 307 Introduction to Biostatistics, Colorado State University, Fort Collins, CO
2007-2009

Online course coordinator

Created and managed website, created and graded homework and exams for

STAT460/STAT560 Multivariate Statistics, Colorado State University, Fort Collins, CO
2009-2010

STAT650 Experimental Design, Colorado State University, Fort Collins, CO 2010

Guest Lecturer

STAT 675K, Bayesian Statistics, Guest Lecturer, Colorado State University, 2010

Internal Seminars, Lectures, and Workshops

A Brief Introduction to Environmental Biostatistics
Health Services Research Work in Progress Seminar, Vanderbilt University Medical Center, January 24, 2017 and March 27, 2018

An Introduction to Propensity Score Methods
CRC Research Skills Workshop, Vanderbilt University Medical Center, October 6, 2017

Introducing Bayesian Methods by Example
Health Services Research Work in Progress Seminar, Vanderbilt University Medical Center, November 28, 2017

Research Program:

R01 ES019560 PI: Peng 10/01/11-12/31/13
Statistical methods for complex environmental health data
Role: Trainee

HHS A2902010000161 PI: Griffin 08/01/15-11/01/2015
Comparative Effectiveness DEcIDE-2 Consortia Task Order 2
Role: Key personnel

VA Merit PI: Roumie 10/01/12 – 09/30/16
Effectiveness of Second Line Hypoglycemic Medications Among Veterans
Role: Co-Investigator

VUMC57172 Subrecipient PI: Hackstadt 11/01/15-12/31/16
Statistical Methods for Complex Environmental Health Data
Role: Subrecipient PI

2I01CX000570 PI: Roumie 10/01/16-9/30/20
Effectiveness of Hypoglycemic Medications Among Veterans with CKD
Role: Co-Investigator

P30 DK92986 PI: Elasy 09/19/17-07/30/21
Vanderbilt Center for Diabetes Translation Research
Role: Biostatistician

P30DK20593 PI: Powers (PI) 01/12/1996-03/31/22
Diabetes Research and Training Center
Role: Biostatistician

Publications and Presentations:

Articles in Refereed Journals

Murff HJ, Roumie CL, Greevy RJ, Hackstadt AJ, D'Agostino McGowan LE, Hung AM, Grijalva CG, and Griffin MR. Metformin Use and Incidence Cancer Risk: Evidence for a Selective Protective Effect against Liver Cancer. *Cancer Causes & Control* In press.

Xia M, Huang R, Shi O, Boyd WA, Zhao J, Sun N, Rice JR, Dunlap PE, Hackstadt AJ, Bridge MF, Smith MV, Dai S, Zheng W, Chu PH, Gerhold D, Witt KL, DeVito M, Freedman JH, Austin CP, Houck KA, Thomas RS, Paules RS, Tice RR, and Simeonov A. Comprehensive analyses and prioritization of Tox2110K chemicals affecting mitochondrial function by in-depth mechanistic studies. *Environmental Health Perspectives* In Press.

Roumie CL, Min, JY, McGowan, LD, Presley C, Grijalva C, Hackstadt AJ, Hung A, Greevy R, Elasy T, Griffin, M. Comparative safety of sulfonylurea and metformin monotherapy on the risk of heart failure: a cohort study. *Journal of the American Heart Association* 2017; 6(4).

Krall JR, Hackstadt AJ, Peng RD. A hierarchical modeling approach to estimate regional acute health effects of particulate matter sources. *Statistics in Medicine* 2017; 36(9) 1461–1475.

Peng RD, Butz AM, Hackstadt AJ, Williams DL, Diette, GB, Breysse PN, Matsui EC. Estimating the Health Benefit of Reducing Indoor Air Pollution in a Randomized Environmental Intervention. *Journal of Royal Statistical Society-Series A* 2015; 178(2) 425-443.

Hackstadt AJ, Matsui EC, Williams DL, Diette GB, Breysse PN, Butz AM, Peng RD. Inference for Environmental Intervention Studies using Principal Stratification. *Statistics in Medicine* 2014; 33(28) 4919-4933.

Hackstadt AJ, Peng RD. A Bayesian Multivariate Receptor Model for Estimating Source Contributions to Particulate Matter Pollution using National Databases. *Environmetrics* 2014; 25(7) 513-527.

Meyer MC, Hackstadt AJ, Hoeting JA. Bayesian Estimation and Inference for Generalised Partial Linear Models Using Shape-Restricted Splines. *Journal of Nonparametric Statistics* 2011; 23(4) 867-884.

Hackstadt AJ, Hess AM. Filtering for Increased Power for Microarray Data Analysis. *BMC Bioinformatics* 2009; 10(11).

Presentations

Invited

“Shape-Restricted Fixed and Free-knot Regression Splines.” Biostatistics and Informatics Department; University of Colorado Denver, Denver, CO, April 27, 2011.

“Estimating the health benefit of reducing indoor air pollution in a randomized environmental intervention using principal stratification.” Royal Statistical Society 2016 Conference; Manchester, England, September 8, 2016.

“Statistical methods to estimate exposures to multiple pollutants.” Western North American Region of the International Biometric Society Annual Meeting, Santa Fe, NM, June 25, 2017.

Contributed

“Microarray Analysis: P-values, Filtering, and Multiple Testing Adjustments.” Conference on Applied Statistics in Agriculture; Manhattan, Kansas, 2007.

“A Bayesian Approach to Mixed Models using Shape-Restricted Regression Splines.” Joint Statistical Meetings; Vancouver, British Columbia, August 3, 2010.

“Changepoint Analysis using Shape-Restricted Regression Splines in a Bayesian Framework.” Joint Statistical Meetings; Miami, FL, August 3, 2011.

“Examining the Effectiveness of a Pollution-Targeted Environmental Intervention on Improving Health.” Joint Statistical Meetings; Montréal, Canada, August 7, 2013.