

MICHAEL G. HUDGENS

Curriculum Vitae

Department of Biostatistics
Gillings School of Global Public Health
University of North Carolina at Chapel Hill
3107-C McGavran-Greenberg
Chapel Hill, NC 27599
Phone: 919 966 7253

Email: mhudgens@bios.unc.edu
<http://www.bios.unc.edu/~mjudgens/>

Education

2000 PhD, Biostatistics, Emory University
1996 MS, Mathematics, University of Florida (Graduated Honors)
1994 BS, Mathematics, University of Florida (Graduated Honors)

Professional Experience

2016-Present Professor, Department of Biostatistics, UNC
2010-Present Director, Biostatistics Core, Center for AIDS Research, UNC
2011-2015 Associate Professor, Department of Biostatistics, UNC
2007-2008 Associate Director, Biostatistics Core, Center for AIDS Research, UNC
2006-2011 Research Associate Professor, Department of Biostatistics, UNC
2004-2006 Research Assistant Professor, Department of Biostatistics, UNC
2000-2004 Staff Scientist, Program in Biostatistics, Fred Hutchinson Cancer
Research Center
2000-2004 Visiting Scholar, Department of Biostatistics, University of Washington

Honors

2015 Edward G. McGavran Award for Excellence in Teaching, UNC Gillings School of Global
Public Health
2012 Elected Fellow, American Statistical Association
2012 Delta Omega Faculty Award
2011 Research Mentor of Kupper Dissertation Publication Award
2011 Charles C. Shepard Science Award, Centers for Disease Prevention and Control
2006 Developmental Award, UNC Center for AIDS Research
2004 Young Investigator Award, Section on Statistics in Epidemiology, American Statistical
Association
2000 ENAR Distinguished Student Paper Award
1997-2000 NIAID AIDS Training Grant Fellowship, Emory University
1994-1995 Graduate Teaching Assistantship, Department of Mathematics, University of Florida
1990-1994 Florida Undergraduate Scholarship, University of Florida

Bibliography

Peer-reviewed Publications

1. S Becker-Dreps, WS Choi, L Stamper, S Vilchez, D Velasquez, S Moon, **MG Hudgens**, B Jiang, SR Permar. Innate immune factors in mothers' breast milk and their lack of association with rotavirus vaccine immunogenicity in Nicaraguan infants. *Journal of the Pediatric Infectious Diseases Society*, In press.
2. S Becker-Dreps, S Vilchez, F Bucardo, E Twitchell, WS Choi, **MG Hudgens**, JP Perez, L Yuan. The association between fecal biomarkers of environmental enteropathy and rotavirus vaccine response in Nicaraguan infants. *The Pediatric Infectious Disease Journal*, In press.
3. AM Butler, JB Layton, D Li, **MG Hudgens**, KA Boggess, LJ McGrath, DJ Weber, S Becker-Dreps. Predictors of Low Uptake of Prenatal Tetanus Toxoid, Reduced Diphtheria Toxoid, and Acellular Pertussis Immunization in Privately Insured Women in the United States. *Obstetrics & Gynecology*, In press.
4. G Clutton, Y Xu, PL Baldoni, K Mollan, J Kirchherr, W Newhard, K Cox, J Kuruc, A Kashuba, R Barnard, N Archin, C Gay, **M Hudgens**, D Margolis, N Goonetilleke. The differential short- and long-term effects of HIV-1 latency reversing agents on T cell function. *Scientific Reports*, In press.
5. Y Chung, A Ivanova, **MG Hudgens**, JP Fine. Partial likelihood estimation of isotonic proportional hazards models. *Biometrika*, Accepted.
6. ML Cottrell, HMA Prince, A Allmon, KR Mollan, **MG Hudgens**, C Sykes, N White, S Malone, ES Dellon, RD Madanick, NJ Shaheen, KB Patterson, ADM Kashuba. Cervicovaginal and Rectal Fluid as a Surrogate Marker of Antiretroviral Tissue Concentration: Implications for Clinical Trial Design. *JAIDS*, In press.
7. EJ Daza, **MG Hudgens**, AH Herring. Estimating inverse-probability weights for longitudinal data with dropout or truncation: The xtrccipw command. *The Stata Journal*, In press.
8. MG dela Pena-Ponce, J Rodriguez-Nieves, J Bernhardt, R Tuck, N Choudhary, M Mengual, KR Mollan, **MG Hudgens**, S Peter-Wohl, K De Paris. Increasing JAK/STAT signaling function of infant CD4+ T cells during the first year of life. *Frontiers in Pediatrics*, In press.
9. JB Dumond, O Francis, M Cottrell, C Trezza, HMA Prince, K Mollan, C Sykes, C Torrice, N White, S Malone, R Wang, C Van Dam, KB Patterson, **MG Hudgens**, NE Sharpless, A Forrest. Association of a Senescence Biomarker with Intracellular Nucleotide Metabolite and Endogenous Nucleotide Exposures in HIV+ Subjects Receiving Tenofovir/Emtricitabine. *Antiviral Therapy*, In press.
10. CR Lesko, AL Buchanan, D Westreich, JK Edwards, **MG Hudgens**, SR Cole. Generalizing study results: a potential outcomes perspective. *Epidemiology*, In press.
11. Y Qin, W Tang, A Nowacki, K Mollan, SA Reifeis, **MG Hudgens**, NS Wong, H Li, JD Tucker, C Wei. Benefits and Adverse Outcomes of HIV Self-Testing Among Men Who Have Sex With Men In China: An Implementation Perspective. *Sexually Transmitted Diseases*, In press.
12. B Saul, **MG Hudgens**. A Recipe for inference: Start with Causal Inference. Add Interference. Mix Well with R. *Journal of Statistical Software*, In press.
13. ER Smith, A Dow, RS Heyderman, WC Miller, S Wheeler, **MG Hudgens**, JAE Nelson, Q Dube, A Van Rie. Performance of HIV rapid tests among breastfeeding, Malawian infants. *The Pediatric Infectious Disease Journal*, In press.
14. ER Smith, **M Hudgens**, AD Sheahan, WC Miller, S Wheeler, JAE Nelson, Q Dube, A Van Rie. Timing of HIV seroreversion among HIV-exposed, breastfed infants in Malawi: Type of HIV rapid test matters. *Maternal and Child Health Journal*, In press.
15. W Tang, J Mao, S Tang, C Liu, K Mollan, B Cao, T Wong, Ye Zhang, **M Hudgens**, Y Qin, L Han, B Ma, B Yang, W Ma, C Wei, JD Tucker, and SESH Study Group. Disclosure of Sexual Orientation to Health Professionals in China: Results from an Online Cross-Sectional Study. *Journal of the International AIDS Society*, In press.
16. A Wahl, PT Ho, PW Denton, K Garrett, **MG Hudgens**, G Swartz, C O'Neill, F Veronese, AD Kashuba, JV Garcia. Predicting HIV Pre-exposure Prophylaxis Efficacy in Women with a Preclinical Pharmacokinetic-Pharmacodynamic In Vivo Model. *Scientific Reports*, In press.

17. S Zadrozny, D Westreich, **MG Hudgens**, C Chasela, DJ Jamieson, A Soko, D Kayira, F Martinson, C Zimba, G Tegha, I Hoffman, WC Miller, BW Pence, CC King, AP Kourtis, M Wezi, and, C van der Horst for the BAN Study Team. Effect of postnatal HIV treatment on clinical mastitis and breast inflammation in HIV-positive breastfeeding women. *Paediatric and Perinatal Epidemiology*, In press.
18. K Jensen, MG dela Pena-Ponce, M Piatak, R Shoemaker, K Oswald, W Jacobs, G Fennelly, C Lucero, K Mollan, **M Hudgens**, A Amedee, P Kozlowski, J Estes, J Lifson, K Van Rompay, M Larsen, K De Paris. Balancing Trained Immunity with Persistent Immune Activation and the Risk of Simian Immunodeficiency Virus Infection in Infant Macaques Vaccinated with Attenuated Mycobacterium tuberculosis or Mycobacterium bovis BCG Vaccine. *Clinical and Vaccine Immunology*, 24(1):e00360-16, 2017
19. SK Lee, S Zhou, PL Baldoni, E Spielvogel, NM Archin, **MG Hudgens**, DM Margolis, R Swanstrom. Quantification of the Latent HIV-1 Reservoir Using Ultra Deep Sequencing and Primer ID In A Viral Outgrowth Assay. *JAIDS*, 74(2):221–228, 2017.
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21. SR Cole, **MG Hudgens**, JK Edwards. A fundamental equivalence between randomized experiments and observational studies. *Epidemiologic Methods*, 5(1):113–117, 2016.
22. ML Cottrell, KH Yang, HMA Prince, C Sykes, N White, S Malone, ES Dellon, RD Madanick, NJ Shaheen, **MG Hudgens**, J Wulff, KB Patterson, JA Nelson, ADM Kashuba. A translational pharmacology approach to predicting outcomes of preexposure prophylaxis against HIV in men and women using tenofovir disoproxil fumarate with or without emtricitabine. *Journal of Infectious Diseases*, 214:55–64, 2016.
23. NL Davis, WC Miller, **MG Hudgens**, CS Chasela, D Sichali, D Kayira, JAE Nelson, SA Fiscus, G Tegha, DD Kamwendo, J Rigdon, JSA Stringer, JJ Juliano, SR Ellington, AP Kourtis, DJ Jamieson, and C van der Horst for the BAN study team. Maternal and Breast Milk Viral Load: Impacts of Adherence on Peri-Partum HIV Infections Averted - The Breastfeeding, Antiretrovirals, and Nutrition Study. *JAIDS*, 73:572–580, 2016.
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25. H Lee, **MG Hudgens**, J Cai, SR Cole. Marginal structural Cox models with case-cohort sampling. *Statistica Sinica*, 26:509–526, 2016.
26. C Liu, J Mao, T Wong, W Tang, LS Tso, S Tang, W Zhang, Y Qin, Z Chen, W Ma, D Kang, H Li, M Liao, K Mollan, **M Hudgens**, B Bayus, S Huang, B Yang, C Wei, JD Tucker. Comparing the effectiveness of a crowdsourced video and a social marketing video in promoting condom use among Chinese men who have sex with men: A study protocol. *BMJ Open*, 6:e010755, 2016.
27. L Liu, **MG Hudgens**, S Becker-Dreps. On inverse probability weighted estimators in the presence of interference. *Biometrika*, 103:829–842, 2016.
28. BM Maas, O Francis, KR Mollan, C Lee, ML Cottrell, HMA Prince, C Sykes, C Trezza, C Torrice, N White, S Malone, **MG Hudgens**, NE Sharpless, JB Dumond. Concentrations of pro-inflammatory cytokines are not associated with senescence marker p16INK4a or predictive of intracellular emtricitabine/tenofovir metabolite and endogenous nucleotide exposures in adults with HIV Infection. *PLoS ONE*, 11(12):e0168709, 2016.
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- CJLM Meijer, AT Hesselink, NF Schlecht, RC Bailey, JS Smith. Higher HPV16 and HPV18 penile viral loads are associated with decreased human papillomavirus clearance in uncircumcised Kenyan men. *Sexually Transmitted Diseases*, 43:572–578, 2016.
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 38. SR Cole, **MG Hudgens**, MA Brookhart, D Westreich. Risk. *American Journal of Epidemiology*, 181(4):246–250, 2015.
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 41. DM Long, **MG Hudgens**, C Wu. Surrogates of protection in repeated low dose challenge studies. *Statistics in Medicine*, 34:1747–1760, 2015. PMC4390486
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 43. T Nolen, **MG Hudgens**, PK Sen, GG Koch. Analysis of repeated low-dose challenge studies. *Statistics in Medicine*, 34:1981–1992, 2015. NIHMSID 672538
 44. KL Oxford, MG Pena-Ponce, K Jensen, ME Eberhardt, A Spinner, KKA Van Rompay, J Rigdon, KR Mollan, VV Krishnan, **MG Hudgens**, PA Barry, K De Paris. The interplay between immune maturation, age, chronic viral infection and environment. *Immunity & Ageing*, 12:3 (20 pages), 2015. PMC4436863
 45. J Rigdon, **MG Hudgens**. Exact confidence intervals in the presence of interference. *Statistics and Probability Letters*, 105:130–135, 2015.
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 47. CJ Sellers, H Lee, C Chasela, D Kayira, A Soko, I Mofolo, S Ellington, **MG Hudgens**, AP Kourits, CC King, DJ Jamieson, and C van der Horst on behalf of the BAN Study Team. Reducing lost to follow-up in a large clinical trial of prevention of mother-to-child transmission of HIV: The Breast-feeding, Antiretrovirals and Nutrition (BAN) study experience. *Clinical Trials*, 12(2):156–165, 2015.
 48. V Senkomago, DM Backes, **MG Hudgens**, C Poole, K Agot, S Moses, PJF Snijders, CJLM Meijer, AT Hesselink, NF Schlecht, RC Bailey, JS Smith. Acquisition and persistence of human papillomavirus 16 (HPV-16) and HPV-18 among men with high-HPV viral load infections in a circumcision trial in Kisumu, Kenya. *Journal of Infectious Diseases*, 211(5):811–820, 2015.

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52. S Becker-Dreps, E Amaya, L Liu, G Moreno, J Rocha, R Briceno, J Aleman, **MG Hudgens**, CW Woods, DJ Weber. Changes in childhood pneumonia and infant mortality rates following introduction of the 13-valent pneumococcal conjugate vaccine in Nicaragua. *Pediatric Infectious Disease Journal*, 33:637–642, 2014.
53. S Becker-Dreps, F Bucardo, S Vilchez, L Liu, DJ Weber, R Pena, L Barclay, J Vinje, **MG Hudgens**, J Nordgren, L Svensson, DR Morgan, F Espinoza, M Paniagua. Etiology of childhood diarrhea following rotavirus vaccine introduction: A prospective, population-based study in Nicaragua. *Pediatric Infectious Disease Journal*, 33(11):1156–63, 2014.
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55. AH Corbett, D Kayira, NR White, NL Davis, AP Kourtis, C Chasela, F Martinson, G Phiri, B Musisi, D Kamwendo, **MG Hudgens** et al. Antiretroviral pharmacokinetics and efficacy in mothers and breastfeeding infants from 6 to 24 weeks post partum: Results of the BAN study. *Antiviral Therapy*, 19(6): 587 – 595, 2014. PMC4110187
56. NL Davis, WC Miller, **MG Hudgens**, CS Chasela, D Sichali, D Kayira, JAE Nelson, JSA Stringer, J Juliano, SR Ellington, AP Kourtis, DJ Jamieson, C van der Horst for the BAN study team. Adherence to extended postpartum antiretrovirals is associated with decreased breastmilk HIV-1 transmission: Results of the BAN study. *AIDS*, 28(18):2739–2749, 2014. PMC4397579
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58. **MG Hudgens**, C Li, JP Fine. Parametric likelihood inference for interval censored competing risks data. *Biometrics*, 70:1–9, 2014. PMC4004384
59. CB Jabara, F Hu, KR Mollan, SE Williford, P Menezes, Y Yang, JJ Eron, MW Fried, **MG Hudgens**, CD Jones, R Swanstrom, SM Lemon. Hepatitis C virus (HCV) NS3 sequence diversity and antiviral resistance-associated variant frequency in HCV/HIV coinfection. *Antimicrobial Agents and Chemotherapy*, 58(10):6079–6092, 2014.
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61. EM McClure, SR Meshnick, N Lazebnik, P Mungai, CL King, **MG Hudgens**, RL Goldenberg, AM Siega-Riz, AE Dent. A cohort study of Plasmodium falciparum malaria in pregnancy and associations with uteroplacental blood flow and fetal anthropometrics in Kenya. *Int J Gynec Obstet*, 126:78-82, 2014.
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63. AI Naimi, SR Cole, **MG Hudgens**, DB Richardson. Estimating the effect of cumulative occupational asbestos exposure on time to lung cancer mortality using structural nested failure time models to account for the healthy worker survivor bias. *Epidemiology*, 25(2):246–254, 2014.
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65. A Richardson, **MG Hudgens**, JP Fine, PB Gilbert. Nonparametric bounds and sensitivity analysis of treatment effects. *Statistical Science*, 29(4):596–618, 2014. NIHMSID656326
66. AF Rositch, Lu Mao, **MG Hudgens**, S Moses, K Agot, DM Backes, E Nyagaya, PJF Snijders, CJLM Meijer, RC Bailey, JS Smith. Risk of HIV acquisition among circumcised and uncircumcised young men with penile HPV infection. *AIDS*, 28(5):745 – 752, 2014. PMC4074250
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68. S Becker-Dreps, M Melendez, L Liu, LE Zambrana, M Paniagua, DJ Weber, **MG Hudgens**, M Caceres, C Kallestall, DR Morgan, F Espinoza, R Pena. Community diarrhea incidence before and after rotavirus vaccine introduction in Nicaragua. *American Journal of Tropical Medicine and Hygiene*, 89(2):246-250, 2013.
69. A Dow, D Kayira, **MG Hudgens**, A Van Rie, CC King, A Msika, S Ellington, N Chome, A Kourtis, A Norris Turner, S Meshnick, Z Kacheche, DJ Jamieson, C Chasela, C van der Horst. The effect of cotrimoxazole prophylactic treatment on malaria, birth outcomes and postpartum CD4 count in HIV-infected women. *Infectious Diseases in Obstetrics and Gynecology*, Article ID 340702 (8 pages), 2013. PMC3865641
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- JS Smith. Patterns of persistent genital human papillomavirus infection among women worldwide: A literature review and meta-analysis. *International Journal of Cancer*, 133(6): 1271–1285, 2013.
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 95. D Long, **MG Hudgens**. Comparing competing risk outcomes in principal strata, with application to studies of mother-to-child transmission of HIV. *Statistics in Medicine*, 31(27):3406-3418, 2012. PMC3494821
 96. J Monsonogo, **MG Hudgens**, L Zerat, JC Zerat, K Syrjanen, JS Smith. Risk assessment and clinical

- impact of liquid-based cytology, oncogenic human papillomavirus (HPV) DNA and mRNA testing in primary cervical cancer screening (The FASE Study). *Gynecologic Oncology*, 125:175-180, 2012.
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Chapters, Commentaries, Letters, Rejoinders, Reviews

155. AL Buchanan, **MG Hudgens**, SR Cole. Generalizing Evidence from HIV Trials Using Inverse Probability of Sampling Weights. In *Quantitative Methods for HIV/AIDS Research*, C Chan, SC Chow, MG Hudgens (Eds.). CRC Press, In press.
156. DJ Westreich, **MG Hudgens**. Response to Ferdinands et al. *American Journal of Epidemiology*, In press.
157. JP Fine, **MG Hudgens**. Comment on Peters et al. *JRSS-B*, In press.
158. J Rigdon, WW Loh, **MG Hudgens**. Response to comment on “Randomization inference for treatment effects on a binary outcome.” *Statistics in Medicine*, In press.
159. ME Halloran, **MG Hudgens**. Dependent Happenings: A Recent Methodological Review. *Current Epidemiology Reports*, In press.
160. DJ Westreich, **MG Hudgens**. Invited commentary: Beware the test-negative design. *American Journal of Epidemiology*, 184(5):354-356, 2016.
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163. Rosen DL, Wohl DA, Golin CE, Rigdon J, May J, White BL, Leone PA, **Hudgens MG**, Bowling MJ. Comparing HIV testing and case detection in prison during opt-in vs. opt-out testing policies. *JAIDS*, 71(3):e85–e88, 2016.
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167. **MG Hudgens**. Book Review of “Interval-censored time-to-event data: methods and applications,” Edited by DG Chen, J Sun, KE Peace. *Journal of the American Statistical Association*, 108:1549–1550, 2013.
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171. PB Gilbert, **MG Hudgens**, J Wolfson. Commentary on “Principal Stratification – A Goal or a Tool?” by Judea Pearl. *International Journal of Biostatistics*, 7(1):36 (17 pages), 2011.
172. IM Longini, **MG Hudgens**, ME Halloran. Estimation of vaccine efficacy for both susceptibility to infection and reduction in infectiousness for prophylactic HIV vaccines with partner augmentation. In *The Quantitative Evaluation of HIV Prevention Programs*, E. Kaplan and R. Brookmeyer (Eds.). New Haven. Yale University Press, 241-259, 2002.

Invited Oral Presentations and Seminars

Duke Human Vaccine Institute, 2017
Dept. of Statistics, Univ. of Penn. 2016
Dept. of Statistics, Univ. of Minn. 2016
Columbia Dept. of Stat. Causal Inference Conference, 2016
Eastern North American Region (ENAR) of the International Biometric Society, Austin, 2016
Fred Hutchinson Cancer Research Center, Seattle, 2016
Workshop on Causal Inference with Highly Dependent Data in Communicable Disease Research, Harvard, 2016
Epidemiology Congress of the Americas, Miami, 2016
Biostatistics Research Branch, NIAID, Rockville, MD, 2016
Dept. of Biostatistics, Harvard, 2015
Atlantic Causal Inference Conference, University of Pennsylvania, 2015
Dept. of Statistics, Carnegie Mellon University, 2015
UNC TraCS Biostatistics Grand Rounds, 2015
Dept. of Statistics, North Carolina State University, 2014
Statistical and Applied Mathematical Sciences Institute (SAMSI), 2014
Dept. of Math. Sciences, Clemson, 2014
ENAR, Baltimore, 2014
UNC TraCS Biostatistics Seminar Series, 2014
Dept. of Political Science, Yale, 2013
Dept. of Statistics, University of Michigan, 2013
Dept. of Biostatistics, University of South Carolina, 2013
ENAR, Orlando, 2013
Dept. of Biostatistics, Yale, 2012
Atlantic Causal Inference Conference, Johns Hopkins, 2012
Dept. of Biostatistics, Brown, 2012
Dept. of Statistical Science, Duke, 2012
UNC TraCS Biostatistics Seminar Series, 2012
Joint Statistical Meetings (JSM), Miami, 2011
Dept. of Statistics, University of South Carolina, 2011
Causal Inference in Health Research Workshop, University of Montreal, 2011
JSM, Vancouver, 2010
Consortium for AIDS Vaccine Discovery, Miami, 2009
JSM, Washington DC, 2009
Department of Psychology, UNC, 2009
JSM, Denver, 2008
Dept. of Statistics and Operations Research, New York University, 2008
International Chinese Statistical Association, Raleigh, NC, 2007
Rho Inc, NC, 2007
ENAR, Atlanta, 2007
JSM, Seattle, 2006
Midwestern Bio-pharmaceutical Statistics Workshop, Muncie, IN, 2005
Dept. of Operations Research, UNC, 2005
Biostatistics Research Branch, NIAID, Bethesda, MD, 2004
North Carolina Department of Health and Human Services, Raleigh, NC, 2004
Division of Infectious Diseases, School of Medicine, UNC Chapel Hill, 2004
JSM, Toronto, 2004
Statistics in the Health Sciences International Conference, Nantes, France, 2004
Dept. of Epidemiology, Harvard, 2003
Dept. of Biostatistics, UNC, 2003
Fred Hutchinson Cancer Research Center, Seattle, 2003
Dept. of Biostatistics and Bioinformatics, Duke, 2003

International AIDS Conference, Barcelona, 2002
Dept. of Biostatistics, Emory University, Atlanta, 2002
Dept. of Biostatistics, University of Washington, Seattle, 2002
ENAR, Washington D.C., 2002
NIH NIAID ELISpot QA Workshop, Bethesda, MD, 2002
Fred Hutchinson Cancer Research Center, Seattle, 2000
Dept. of Statistics, University of Waterloo, 2000
ENAR, Chicago, 2000
ENAR, Atlanta, 1999
Annual Meeting of the Society for Clinical Trials, Atlanta, 1998

Teaching Record and Advising

UNC Courses Taught

BIOS 776: Causal Inference in Biomedical Research (2015)
BIOS 680: Introductory Survival Analysis (2010–2014, 2016)
BIOS 662: Intermediate Statistical Methods (2005–2008)
EPID 690: Causal Inference (2012, Co-Instructor with S Cole)

Guest Lectures at UNC

EPID 726: Epidemiologic Research Methods
Spring 2016, Guest lectures (2) on power and sample size
EPID 799C: Vaccine Epidemiology
Spring 2016, Guest lecture on statistical considerations in assessing vaccine efficacy and effectiveness
EPID 726: Epidemiologic Research Methods
Spring 2015, Guest lectures (2) on power and sample size
EPID 799A: Advanced Concepts in Infectious Disease Epidemiology
Fall 2014, Guest lecture on causal inference and vaccines
PLCY 801: Design of Policy-Oriented Research
Fall 2014, Guest lecture causal inference
EPID 710: Fundamentals of Epidemiology
Fall 2016, Guest lecture on BAN study
Fall 2015, Guest lecture on BAN study
Fall 2014, Guest lecture on BAN study (with C van der Horst)
EPID 799: Vaccine Epidemiology and Methods
Fall 2013, Guest lecture on causal inference and vaccines
MCRO 711: Seminar in Virology
Fall 2013, Guest lecture on survival analysis
BIOS 752: Design and Analysis of Clinical Trials
Fall 2009, Guest lecture on causal inference
EPID 270: Readings in Epidemiologic Modeling
Fall 2004, Guest lecture on causal inference

Guest Lectures at Duke

STA 640: Causal Inference
Fall 2015, Guest lecture on causal inference

Short Courses and Tutorials

Causal inference [2.5 day short-course, Co-Instructor with T Richardson]
Summer Institute in Statistics and Modeling in Infectious Diseases
University of Washington
2009 – 2016

Causal inference [4 hour short course]
XIV Latin American Congress of Probability and Mathematical Statistics (CLAPEM)
Universidad de Costa Rica, 2016.

Introduction to power and sample size.
UNC Hospital Medicine Program, 2014.

Power and sample size boot camp [with K Mollan].
Friday Infectious Disease Conference, UNC. 2014.

An overview of biostatistics [with K Mollan].
Friday Infectious Disease Conference, UNC. 2013.

Direction of Doctoral Research in Biostatistics

Eric Daza (Graduated 2015; co-advised with A Herring), Longitudinal Regression Conditioning on Continuation.

Joe Rigdon (2015), Causal Inference for Binary Data with Interference.

Ashley Buchanan (2015), Causal Inference in HIV/AIDS Research: Generalizability and Applications.

Amy Richardson (2014), Inference about Treatment Effects Using Bounds, Sensitivity Analysis and Instrumental Variables.

Hana Lee (2013; co-advised with J Cai), Marginal Structural Cox Models with Case-Cohort Sampling.

Lan Liu (2013), Causal Inference with Interference. Recipient of 2013 International Chinese Statistical Association Student Travel Award.

Dustin Long (2012), Causal Inference and Principal Stratification: Competing Risks, Bounds, and Surrogates. Recipient of 2013 ENAR Distinguished Student Paper Award.

Tracy Nolen (2012), Causal Inference in Infectious Disease Prevention Studies. Recipient of 2011 ENAR Distinguished Student Paper Award and 2011 Kupper Dissertation Publication Award.

Cicely Mitchell (2011), Semi-Markov Multi-state Modeling of HPV.

Hae-Young Kim (2007; co-advised with J Ibrahim), Operating Characteristics of Group Testing Algorithms for Case Identification in the Presence of Test Error. Recipient of 2006 ENAR Distinguished Student Paper Award and 2006 UNC Graduate Education Advancement Board Impact Award.

Direction of Master's Thesis in Biostatistics

Christel Rushing (2015), Survival Function Estimation in the Presence of Right-Censoring and Missing Left-Truncation Times.

Bradley Saul (2015), A Recipe for Interference. Start with Causal Inference. Add Interference. Mix Well with R. Winner of Regina C. Elandt-Johnson Master's Paper Award.

Jiaqi Xiao (2015), On Nonparametric Maximum Likelihood Estimation with Double Truncation.

Anqi Zhu (2015), Rank-based Inference of Cox Model for Interval Censored Data.

Ian Robinson (2015), Network Analysis of Gender in Injection Drug Users in St. Petersburg, Russia.

Polina Kukhareva (2012), Evaluation of a Russian IDU Peer Network HIV Prevention Intervention in a Randomized Controlled Trial.

Amy Richardson (2011), Nonparametric Bounds and Sensitivity Analysis on Treatment Effects.

Cristina Baraian (2011), Comparison of Three Binary Screening Tests in the Presence of Verification Bias.

Megha Parikh (2011), Socioeconomic Factors Related to Frequency and Time to Initiation of Antenatal Care in Kinshasa, Democratic Republic of Congo.

Samuel Lendle (2010), Group Testing for Case Identification with Correlated Responses.

Julie Aldridge (2008), On Testing the Efficacy of Interventions to Prevent Mother-to-child Transmission of HIV.

Hyeon-Ah Park (2007), Use of Exact Tests in Vaccine Challenge Studies.

Jennifer Marcello (2006), A Causal Inference Approach to Assessing Surrogates of Protection in HIV Vaccine Trials.
Jonathan Dreyfuss (2006, Department of Statistics), Matrix Based Group Testing.

Reader of Master's Thesis in Biostatistics (unless stated otherwise)

Meichen Dong (2016)
Nadja Vielot (2014, Epidemiology)
Ellen Mir (2012)
Kati McConville (2012)
Chelsea Erickson (2009)
Giovanni Veronesi (2008)
Erika Menius (2008)

Direction of Undergraduate Thesis in Biostatistics

Larry Han (2016), RTS,S/AS01 malaria vaccine efficacy and its interaction with seasonal precipitation: Results from a phase 3 randomized controlled trial in Lilongwe, Malawi.
Zimeng (Parker) Xie (2016), A method of estimating treatment effect in clinical data associated with personalized medicine: A replication study.
Elizabeth Chandler Church (2011), Predictors of CD4 Count at Time of Interview in an HIV-infected Cohort.
Sarah Elizabeth Smith (2010), Survival analysis of data on the prevention of mother-to-child transmission of HIV in a resource-limited setting.

Faculty Mentoring

Quefeng Li PhD (2015–present), Department of Biostatistics, Mentoring Committee
Josephine Asafu-Adjei PhD (2014–present), Department of Biostatistics, Mentoring Committee Chair
Annie Green Howard PhD (2013–present), Department of Biostatistics, Mentoring Committee Chair
Sylvia Becker-Dreps MD (2009–2013), Department of Family Medicine, NIH-Fogarty International Center K-01 Mentor Panel

Doctoral Dissertation Committee Membership (UNC unless stated otherwise)

Jung In Kim, Biostatistics (2017)
Lu Mao, Biostatistics (2016)
Byeongyeob Choi, Biostatistics (2016)
Yunro Chung, Biostatistics (2016)
Emily Smith, Epidemiology (2016)
Wen Wei, Statistics, University of Washington (2016)
Noorie Hyun, Biostatistics (2014)
Steven Hoberman, Biostatistics (2014)
Natalia Gouskova, Biostatistics (2014)
Alex Keil, Epidemiology (2014)
Nicole Davis, Epidemiology (2014)
Virginia Senkomago, Epidemiology (2013)
Alane Murdock, Maternal and Child Health (2013)
Min Jin Ha, Biostatistics (2013)
Yi Zhang, Biostatistics (2013)
Guochen Song, Biostatistics (2013)
Elizabeth McClure, Epidemiology (2013)
Jie Ting, Epidemiology (2013)
Elizabeth Widen, Nutrition (2012)
Ashley Naimi, Epidemiology (2012)
Nathan Nickel, Maternal and Child Health (2011)

Anne Rositch, Epidemiology (2011)
Changfu Xiao, Biostatistics (2011)
Bingqing Zhou, Biostatistics (2010)
Danielle Backes, Epidemiology (2010)
Anna Dow, Epidemiology (2010)
William Funk, Environmental Sciences and Engineering (2009)
Ella Nkohoma, Epidemiology (2009)
Marloes Maathuis, Statistics, U of Washington (2006)
Aaron Wendelboe, Epidemiology (2006)
Jackie Tate, Epidemiology (2005)

Service

Professional

Associate Editor, Journal of the Royal Statistical Society - Series B (2016-present)
Associate Editor, Journal of the American Statistical Association (2012-present)
Associate Editor, Biometrics (2011-present)
Member, DSMB for “Keep It Up!” (a randomized HIV prevention trial), PI B Mustanski PhD, Northwestern Univ at Chicago (2013-present)
Member, Special Emphasis Panel of application to RFA-AI-16-012 “Pilot Clinical Trials to Eliminate the Latent HIV Reservoir (U01),” NIH (2016)
Member, FDA Vaccines and Related Biological Products Advisory Committee (2012-2016)
Member, ENAR Regional Advisory Board (RAB) (2016-present)
Organizer and Chair, Invited Session “Statistical Methods in HIV/AIDS” ENAR (2016)
Organizer and Chair, Invited Session “Causal Inference and HIV/AIDS” ENAR (2015)
Organizer and Chair, Invited Biostatistics Sessions on “Biostatistics training and capacity building in developing countries” and “NIH funding for statistical and computational methodology development to support HIV/AIDS research,” Inter-CFAR Working Meeting on CFAR HIV Research in International Settings, San Diego (2014).
Member, Special Emphasis Panel of application to PAR-13-150 “NIAID Clinical Trial Planning Grant (R34),” NIH NIAID (2014)
Member, Special Emphasis Panel of applications to PAR-14-041 “Centers for AIDS Research and Developmental Centers for AIDS Research (P30),” NIH NIAID (2014)
Reviewer, United Kingdom Medical Research Council grant application (2014)
Member (ad-hoc), AIDS Clinical Studies and Epidemiology Study Section, NIH (2013)
Organizer and Chair, Invited Session “Optimal and personalized treatment of HIV,” ENAR (2012)
Chair, DSMB for “Empiric therapy of helminth co-infection to reduce HIV-1 disease progression” PI J Walson MD, University of Washington (2008-2011)
Organizer and Chair, Invited Session “Statistical Methods in HIV/AIDS Research,” ENAR (2011)
Organizer, Invited Session “Impact of Biostatistical Methods on HIV/AIDS Studies in Resource Limited Environments,” ENAR (2011)
Reviewer, Riksbankens Jubileumsfond (Sweden) grant application (2011)
Reviewer, National Science Foundation grant application (2012)
Reviewer, National Science Foundation grant application (2010)
Organizer, Invited Panel Session “Directing a Biostatistics Core in Biomedical Research,” Joint Statistical Meetings (2008)
Chair, Invited Session “Statistical Methods in HIV Genomics,” ENAR (2007)
Organizer and Chair, Invited Session “Statistical Methods in HIV/AIDS Research,” Joint Statistical Meetings, Section on Statistics in Epidemiology (2006)
Member, Special Emphasis Panel/Scientific Review Group, NIH NIAID (2006)
Member, Special Emphasis Panel/Scientific Review Group, NIH NIAID (2004)
Member, Faculty Search Committee, Department of Lab. Medicine, University of Washington (2003)

Reviewer for Professional Journal: *American Journal of Epidemiology*, *American Journal of Sociology*, *Annals of Statistics*, *Biometrics*, *Biometrika*, *Biostatistics*, *Communications in Statistics*, *Epidemiologic Methods*, *Journal of the American Statistical Association*, *Journal of Applied Statistics*, *Journal of Biopharmaceutical Statistics*, *Journal of Business and Economic Statistics*, *Journal of Causal Inference*, *Journal of Consulting and Clinical Psychology*, *Journal of Clinical Epidemiology*, *Journal of Nonparametric Statistics*, *Journal of Statistical Computation and Simulation*, *Journal of Statistical Planning and Inference*, *Journal of Statistical Software*, *Journal of the Royal Statistical Society (Series A – C)*, *International Journal of Epidemiology*, *Lifetime Data Analysis*, *Metrika*, *Pharmaceutical Statistics*, *Proceedings of the National Academy of Sciences*, *Science*, *Sexually Transmitted Diseases*, *Statistical Methods in Medical Research*, *Statistics and Probability Letters*, *Statistics in Medicine*, *Statistics in Biosciences*, *Statistical Science*, *Test*

External Reviewer for Appointment/Tenure/Promotion: The Ohio State University (2016), University of Massachusetts Amherst (2016), University of Florida (2016), Duke (2015), Fred Hutchinson Cancer Research Center (2013), University of Michigan (2013), University of Massachusetts Amherst (2013)

Faculty Engagement

Chair, Doctoral Applications Examination Committee, Department of Biostatistics (2014-present)
Appointments, Promotions, and Tenure (APT) Committee, School of Public Health (2016-present)
Chair, Collaborative Studies Coordinating Center Review Committee, Department of Biostatistics (2016-2017)
Gillings MPH Core (Residential) Planning Committee, School of Public Health (2015-2016)
Faculty Search Committee, Department of Biostatistics (2016)
Biostatistics Chair Review Committee (2015)
Biostatistics Department Affiliate Liaison to the National Institute of Statistical Sciences (2014 - present)
Admissions Committee, Department of Biostatistics (2013-present)
Safety Monitoring Committee, Phase I/II Trial, PI D Margolis (2011-2016)
Center for AIDS Research Developmental Core Review Committee (2008-present)
Space Committee, Department of Biostatistics (2008-2013)
Chair, Web and Communications Committee, Department of Biostatistics (2007-2015)
Faculty Search Committee, Department of Biostatistics (2014-2015)
Chair, Faculty Retreat Planning Committee, Department of Biostatistics (2014)
Chair, MS and MPH Curriculum and Training Task Force, Department of Biostatistics (2013)
Faculty Search Committee, Department of Biostatistics (2012)
Collaborative Studies Coordinating Center Review Committee, Department of Biostatistics (2011)
Doctoral Examination Committee, Department of Biostatistics (2010-2014)
Communications Committee, Department of Biostatistics (2008-2012)
School of Public Health Web Council Committee (2008-2009)
Self Study Committee, Department of Biostatistics (2008)
School of Public Health Student Awards Committee (2006-2007)
Faculty Search Committee, Department of Biostatistics (2006-2008)
Safety Monitoring Committee, Phase I Trial, PI D Margolis (2005-2009)
Center for AIDS Research Biostatistics Core Internal Advisory Board (2005-2010)
Master's Examination Committee, Department of Biostatistics (2004-2009)

February 14, 2017