

CURRICULUM VITAE

CHENGCHENG HU

University of Arizona
Mel and Enid Zuckerman College of Public Health
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CHRONOLOGY OF EDUCATION

- 2001 Ph.D. in Biostatistics, University of Washington, Seattle, WA
 Dissertation: Semiparametric failure-time regression with mismeasured
 or missing covariates
 Advisor: Dr. Danyu Lin
- 1998 M.S. in Biostatistics, University of Washington, Seattle, WA
- 1995 M.A. in Mathematics, Johns Hopkins University, Baltimore, MD
- 1990 – 1993 Undergraduate Study in Mathematics, Peking University, Beijing, China

CHRONOLOGY OF EMPLOYMENT

Academic Positions

- 2012 – present Associate Professor, Public Health, Division of Epidemiology and
 Biostatistics, Mel and Enid Zuckerman College of Public Health,
 University of Arizona, Tucson, AZ
- 2008 – present Member, Graduate Interdisciplinary Program in Statistics,
 University of Arizona, Tucson, AZ
- 2008 – present Member, BIO5 Institute, University of Arizona, Tucson, AZ
- 2008 – 2012 Assistant Professor, Public Health, Division of Epidemiology and
 Biostatistics, Mel and Enid Zuckerman College of Public Health,
 University of Arizona, Tucson, AZ
- 2002 – 2008 Assistant Professor of Biostatistics, Department of Biostatistics,
 Harvard School of Public Health, Boston, MA
- 2001 – 2008 Senior Statistician, Center for Biostatistics in AIDS Research,
 Harvard School of Public Health, Boston, MA
- 2001 – 2002 Postdoctoral Research Fellow, Department of Biostatistics,

- 1996 – 2001 Harvard School of Public Health, Boston, MA
Research Assistant, Fred Hutchinson Cancer Research Center,
Seattle, WA
- 1999 Teaching Assistant, Department of Biostatistics,
University of Washington, Seattle, WA
- 1993 – 1996 Teaching Assistant, Department of Mathematics,
Johns Hopkins University, Baltimore, MD

Other Experience

- 2012 – present Statistical Consultant, Phoenix Children’s Hospital,
Phoenix, AZ
- 2008 – present Consultant, Center for Biostatistics in AIDS Research,
Harvard School of Public Health, Boston, MA
- 1999 Intern and Visiting Scientist, Genentech, Inc.,
South San Francisco, CA

HONORS AND AWARDS

- 1999 Best Written Paper, Student Paper Competition
International Biometric Society (WNAR)
- 1998 Donovan J. Thompson Award for Academic Excellence in Biostatistics,
University of Washington, Seattle, WA
- 1993 – 1996 Tuition Fellowship, Johns Hopkins University, Baltimore, MD
- 1989 Finalist and Third-Prize Winner, Chinese Mathematics Olympiad

SERVICE/OUTREACH

External Service

- Member, Adolescent Research Agenda Committee, Pediatric AIDS Clinical Trials
Group, 2006.
- Member, NIH/NCI Small Grants for Cancer Epidemiology (R03) Review Panel,
April, 2009; June, 2009; October, 2009; April, 2010; June, 2010.
- Reviewer, James and Esther King Biomedical Research Program administered
by the Florida Department of Health, February, 2010.

Member, Program Faculty, Sequencing the Genome: Implications for Cancer Therapy, A Primer for the Practicing Physician, Phoenix, AZ, February, 2011.

Reviewer, Bankhead-Coley Cancer Research Program, Florida Department of Health, October, 2011

Reviewer, Bankhead-Coley Cancer Research Program, Florida Department of Health, January, 2012

Professional Societies

American Statistical Association

International Biometric Society (WNAR)

Data and Safety Monitoring Board

Observational Safety Review Board for the CADDE trial (Typical Daily Emotion, Ischemia and Repolarization in Coronary Heart Disease).

Editorial Board

BMC Medical Research Methodology, 2012 – present

Referee Service

Before 2006 *Bioinformatics*, *Biometrics* (4 articles), *Circulation*, *Journal of Statistical Planning and Inference*, *Journal of the American Statistical Association* (4 articles), *Lifetime Data Analysis* (2 articles), *Pattern Recognition Letters*, *Scandinavian Journal of Statistics*, *Statistica Sinica*, *Statistical Applications in Genetics and Molecular Biology*, and *Statistics & Probability Letters*

2006 – 2007 *Circulation* (2 articles)

2008 – 2009 *Biometrics* and *Circulation* (2 articles)

2009 – 2010 *Canadian Journal of Statistics*, *Circulation* (2 articles), *Circulation: Arrhythmia and Electrophysiology*, and *Circulation: Cardiovascular Interventions*

2010 – 2011 *Circulation* (3 articles), *Circulation: Arrhythmia and Electrophysiology*, *Circulation: Cardiovascular Imaging*, and *The Oncologist*

- 2011 – 2012 *Circulation* (4 articles), *Circulation: Arrhythmia and Electrophysiology*, *Circulation: Cardiovascular Interventions*, *Circulation: Cardiovascular Quality and Outcomes* (2 articles), and *Contemporary Clinical Trials* (3 articles)
- 2012 – 2013 *Biostatistics*, *Circulation* (3 articles), and *Circulation: Cardiovascular Imaging*

Internal Service

Harvard School of Public Health:

- Colloquium Committee, Dept. of Biostatistics, 2002 – 2004, 2005 – 2007
- Curriculum Committee, Dept. of Biostatistics, 2002 – 2003, 2007 – 2008
- Postdoctoral Committee, Dept. of Biostatistics, 2002 – 2003, 2004 – 2005, 2006 – 2007
- Hiring Committee, Center for Biostatistics in AIDS Research, 2003 – 2006
- Newsletter Committee, Dept. of Biostatistics, 2003 – 2004
- Qualifying Exam Committee, Dept. of Biostatistics, 2003 – 2004
- Teaching Effectiveness Committee, Dept. of Biostatistics, 2003 – 2005
- Diversity Committee, Dept. of Biostatistics, 2004 – 2005
- Webpage Committee, Dept. of Biostatistics, 2005 – 2008
- Admission and Recruiting Committee, Dept. of Biostatistics, 2006 – 2007

University of Arizona:

- Colloquia & Forums Committee (Chair), Graduate Interdisciplinary Program in Statistics, 2008 – 2009
- Research Advisory Committee, Mel and Enid Zuckerman College of Public Health, 2008 – present
- Biostatistics Admissions, Division of Epidemiology and Biostatistics, Mel and Enid Zuckerman College of Public Health, 2009 – present
- Website Workgroup, Division of Epidemiology and Biostatistics, Mel and Enid Zuckerman College of Public Health, 2010

Peer Review Committee, Division of Epidemiology and Biostatistics, Mel and Enid Zuckerman College of Public Health, 2011

Biostatistics Search Committee, Division of Epidemiology and Biostatistics, Mel and Enid Zuckerman College of Public Health, 2011 – present

Executive Committee, Graduate Interdisciplinary Program in Statistics, 2011 – present

Curriculum Committee (Chair), Graduate Interdisciplinary Program in Statistics, 2011 – present

Scientific Review Committee, Mel and Enid Zuckerman College of Public Health, 2012 – present

Scholarly Project Review Committee, College of Medicine – Phoenix, 2012 – present

PUBLICATIONS/CREATIVE ACTIVITY

Peer-Reviewed Publications

(* derived from dissertation)

1. Etzioni RD, Feuer EJ, Sullivan SD, Lin DY, **Hu C**, and Ramsey SD (1999). On the use of survival analysis techniques to estimate medical care cost. *Journal of Health Economics* 18(3), 365–80.
2. Etzioni RD, Pepe MS, Longton G, **Hu C**, and Goodman GE (1999). Incorporating the time dimension in receiver operating characteristic curves: a case study of prostate cancer. *Medical Decision Making* 19(3), 242-51.
3. Ellis WJ, Etzioni RD, Vessella RL, **Hu C**, and Goodman GE (2001). Serial prostate specific antigen, free-to-total prostate specific antigen ratio and complexed prostate specific antigen for the diagnosis of prostate cancer. *Journal of Urology* 166(1), 93-8; discussion 98-9.
4. ***Hu C** and Lin DY (2002). Cox regression with covariate measurement error. *Scandinavian Journal of Statistics* 29(4), 637-655.
5. Huang X, Wolfe RA, and **Hu C** (2004). A test for informative censoring in clustered survival data. *Statistics in Medicine* 23(13), 2089-2107.
6. ***Hu C** and Lin DY (2004). Semiparametric failure time regression with replicates of mismeasured covariates. *Journal of the American Statistical Association* 99, 105-118.

7. Liu J, Sukhova GK, Yang JT, Sun J, Ma L, Ren A, Xu WH, Fu H, Dolganov GM, **Hu C**, Libby P, and Shi GP (2006). Cathepsin L expression and regulation in human abdominal aortic aneurysm, atherosclerosis, and vascular cells. *Atherosclerosis* 184, 302-311.
8. Liu J, Ma L, Yang J, Ren A, Sun Z, Yan G, Sun J, Fu H, Xu W, **Hu C**, and Shi GP (2006). Increased serum cathepsin S in patients with atherosclerosis and diabetes. *Atherosclerosis* 186, 411-419.
9. Best BM, Mirochnick M, Capparelli EV, Stek A, Burchett SK, Holland DT, Read JS, Smith E, **Hu C**, Spector SA, Connor JD, and the PACTG P1026S Study Team (2006). Impact of pregnancy on abacavir pharmacokinetics. *AIDS* 20, 553-560.
10. Stek AM, Mirochnick M, Capparelli E, Best BM, **Hu C**, Burchett SK, Elgie C, Holland DT, Smith E, Tuomala R, Cotter A, Read JS, for the PACTG 1026S Study Team (2006). Reduced lopinavir exposure during pregnancy. *AIDS* 20, 1931-1939.
11. Wang KH, Majewska A, Schummers J, Farley B, **Hu C**, Sur M, and Tonegawa S (2006). In vivo two-photon imaging reveals a role of Arc in enhancing orientation specificity in visual cortex. *Cell* 126, 389-402.
12. Chen YQ, **Hu C**, and Wang Y (2006). Attributable risk function in the proportional hazards model for censored time-to-event. *Biostatistics* 7, 515-529.
13. Hars ES, Qi H, Ryazanov AG, Jin S, Cai L, **Hu C**, and Liu LF (2007). Autophagy regulates ageing in *C. elegans*. *Autophagy* 3, 93-95.
14. **Hu C** and De Gruttola V (2007). Joint modeling of progression of HIV resistance mutations measured with uncertainty and time to virological failure. *Biometrics* 63, 60-68.
15. Fiscus SA, Kovacs A, Petch LA, **Hu C**, Wiznia AA, Mofenson LM, Yogev R, McIntosh K, Pelton SI, Napravnik S, Stanley KE, and Nachman SA (2007). Baseline resistance to nucleoside reverse transcriptase inhibitors fails to predict virologic response to combination therapy in children (PACTG 338). *AIDS Research and Therapy*, 2007; 4:2.
16. McKinney RE, Rodman J, **Hu C**, Britto P, Hughes M, Smith ME, Serchuk LK, Kraimer J, Ortiz AA, Flynn P, Yogev R, Spector S, Draper L, Tran P, Scites M, Dickover R, Weinberg A, Cunningham C, Abrams E, Blum HR, Chittick GE, Reynolds L, Rathore M, and Pediatric AIDS Clinical Trials Group Protocol P1021 Study Team (2007). Long term safety and efficacy of a once-daily

- regimen of emtricitabine, didanosine, and efavirenz in HIV-infected, therapy-naive children and adolescents (Pediatric AIDS Clinical Trials Group protocol P1021). *Pediatrics*, 2007; 120, e416-e423.
17. Healy BC, De Gruttola VG, and **Hu C** (2008). Accommodating uncertainty in tree set for function estimation. *Statistical Applications in Genetics and Molecular Biology*, 7, Iss. 1, Article 5.
Available at: <http://www.bepress.com/sagmb/vol7/iss1/art5>
 18. Capparelli EV, Aweeka F, Hitti J, Stek A, **Hu C**, Burchett SK, Best B, Smith E, Read JS, Watts H, Nachman S, Thorpe EM, Spector SA, Jimenez E, Shearer WT, Foca M, Mirochnick M, for the PACTG 1026S and P1022 Study Teams (2008). Chronic administration of nevirapine during pregnancy: impact of pregnancy on pharmacokinetics. *HIV Medicine* 9(4), 214-220.
 19. Read JS, Best BM, Stek AM, **Hu C**, Capparelli EV, Holland DT, Burchett SK, Smith ME, Sheeran BC, Shearer WT, Febo I, and Mirochnick M (2008). Pharmacokinetics of new 625 mg nelfinavir formulation during pregnancy and postpartum. *HIV Medicine*, 9(10), 875-882.
 20. Mirochnick M, Best BM, Stek AM, Capparelli E, **Hu C**, Burchett SK, Holland DT, Smith E, Gaddipati S, Read JS, for the PACTG 1026S Study Team (2008). Lopinavir exposure with an increased dose during pregnancy. *Journal of Acquired Immune Deficiency Syndromes*, 49(5), 485-491.
 21. Weinberg A, Dickover R, Britto P, **Hu C**, Patterson-Bartlett J, Kraymer J, Gutzman H, Shearer W, Gelman R, Rathore M, McKinney R, and the PACTG 1021 Team (2008). Continuous improvement in the immune system of HIV-infected children on prolonged antiretroviral therapy. *AIDS*, 22(17), 2267-2277.
 22. Garvie PA, Cremeens J, Gaur AH, Flynn PM, Belzer M, McSherry G, and **Hu C** for the Pediatric AIDS Clinical Trials Group 1036A Study Team (2009). Development of a directly observed therapy adherence intervention for adolescents with Human Immunodeficiency Virus-1: application of focus group methodology to inform design, feasibility and acceptability. *Journal of Adolescent Health*, 44(2), 124-132.
 23. Aweeka FT, Stek A, Best B, **Hu C**, Holland D, Hermes A, Burchette SK, Read J, Mirochnick M, Capparelli EV, and the International Maternal Pediatric Adolescent AIDS Clinical Trials Group (IMPAACT) P1026s Protocol Team (2010). Lopinavir protein binding in HIV-1 infected pregnant women. *HIV Medicine*, 11, 232-238.

24. Stratton SP, Alberts DS, Einspahr JG, Sagerman PM, Warneke JA, Curiel CN, Myrdal PB, Karlage K, Nickoloff B, Brooks C, Saboda K, Yozwiak M, Kruttsch MR, **Hu C**, Lluria-Prevatt M, Dong Z, Bowden GT, Bartels PH (2010). A phase 2a study of topical perillyl alcohol cream for chemoprevention of skin cancer. *Cancer Prevention Research*, 3(2), 160-169.
25. Best BM, Stek AM, Mirochnick M, **Hu C**, Li H, Burchett SK, Rossi SS, Smith E, Read JS, Capparelli EV for the IMPAACT 1026 Study Team (2010). Lopinavir tablet pharmacokinetics with an increased dose during pregnancy. *Journal of Acquired Immune Deficiency Syndromes*, 54(4), 381-388.
26. Gaur AH, Belzer M, Britto P, Garvie PA, **Hu C**, Graham B, Neely M, McSherry G, Spector SA, and Flynn PM for the Pediatric AIDS Clinical Trials Group P1036B Team (2010). Directly observed therapy (DOT) for nonadherent HIV-infected youth: lessons learned, challenges ahead. *AIDS Research and Human Retroviruses*, 26(9), 947-953.
27. Hibler EA, Jurutka PW, Egan JB, **Hu C**, LeRoy EC, Martínez ME, Thompson PA, Jacobs ET (2010). Association between polymorphic variation in VDR and RXRA and circulating levels of vitamin D metabolites. *Journal of Steroid Biochemistry and Molecular Biology*, 121, 438-441.
28. Nasser FS, Ritsema DF, Cheney S, Stern K, Sokoloff MH, **Hu C**, Nguyen MM (2010). Reviewing radiographic images with patients: a trial on patient preferences, understanding, and satisfaction. *Journal of Endourology*, 24(12), 2083-91.
29. McKenzie NE, Saboda K, Duckett LD, Goldman R, **Hu C**, and Curiel-Lewandrowski CN (2011). Development of a photographic scale for consistency and guidance in dermatological assessment of forearm sun damage. *Archives of Dermatology*, 147(1), 31-36.
30. Mirochnick M, Best BM, Stek AM, Capparelli E, **Hu C**, Burchett SK, Rossi SS, Hawkins E, Basar M, Smith E, Read JS for the IMPAACT P1026s Study Team (2011). Atazanavir pharmacokinetics with and without tenofovir during pregnancy. *Journal of Acquired Immune Deficiency Syndromes*, 56(5), 412-419.
31. Dickinson SE, Olson ER, Zhang J, Cooper SJ, Melton T, Criswell PJ, Casanova A, Dong Z, **Hu C**, Saboda K, Jacobs ET, Alberts DS, and Bowden GT (2011). p38 MAP kinase plays a functional role in UVB-induced mouse skin carcinogenesis. *Molecular Carcinogenesis*, 50, 469-478.

32. Bea JW, Wright NC, Thompson P, **Hu C**, Guerra S, and Chen Z (2011). Performance evaluation of a multiplex assay for future use in biomarker discovery efforts to predict body composition. *Clinical Chemistry and Laboratory Medicine*, 49(5), 817-824.
33. LeRoy EC, Moore JH, **Hu C**, Martínez ME, Lance P, Duggan D, Thompson PA (2011). Genes in the insulin and insulin-like growth factor pathway and odds of metachronous colorectal neoplasia. *Human Genetics*, 129(5), 503-512.
34. Garvie PA, Flynn PM, Belzer M, Britto P, **Hu C**, Graham B, Neely M, McSherry GD, Spector SA, and Gaur AH for the Pediatric AIDS Clinical Trials Group (PACTG) P1036B Team (2011). Psychological factors, beliefs about medication, and adherence of youth with HIV-1 in a multisite directly observed therapy (DOT) pilot study. *Journal of Adolescent Health*, 48(6), 637-640.
35. **Hu C** and De Gruttola V (2011). Recursive partitioning of resistant mutations for longitudinal markers based on a U-type score. *Biostatistics*, 12(4), 750-762.
36. Hibler EA, **Hu C**, Jurutka PW, Martínez ME, and Jacobs ET (2012). Polymorphic variation in GC and CASR and associations with Vitamin D metabolite concentration and metachronous colorectal neoplasia. *Cancer epidemiology, biomarkers & prevention*, 21(2), 368-375.
37. Stek AM, Best BM, Luo W, Capparelli E, Burchett S, **Hu C**, Li H, Read JS, Jennings A, Barr E, Smith E, Rossi SS, and Mirochnick M. (2012). Effect of pregnancy on emtricitabine pharmacokinetics. *HIV Medicine*, 13(4), 226-235.
38. Diep CH, Zucker KM, Hostetter G, Watanabe A, **Hu C**, Munoz RM, Von Hoff DD, and Han H. (2012). Down-regulation of Yes Associated Protein 1 expression reduces cell proliferation and clonogenicity of pancreatic cancer cells. *PLoS ONE*, 7(3), e32783.
39. Burgess JL, Duncan M, **Hu C**, Littau SR, Caseman D, Kurzius-Spencer M, Gorman G, McDonogh P. (2012). Acute cardiovascular effects of firefighting and active cooling during rehabilitation. *Journal of Occupational and Environmental Medicine*, 54(11), 1413-1420.
40. Poplin GS, Miller H, Sottile J, **Hu C**, Hill JRM, Burgess JL. (2012). Enhancing severe injury surveillance: the association between severe injury events and fatalities in US coal mines. *Journal of Safety Research*, available online December 11, 2012, <http://dx.doi.org/10.1016/j.jsr.2012.11.002>

Book Chapter

1. Wang W and **Hu C** (2006). Proportional hazards regression models. *Springer Handbook of Engineering Statistics (Pham H, editor)*, 387-395. New York: Springer-Verlag, Inc.

Other Publication

(* derived from dissertation)

1. ***Hu C** and Lin DY (2000). Corrected imputation method for Cox regression with missing covariates. *Proceedings of the American Statistical Association, Biometrics Section*, 2000.

Manuscripts Submitted or Under Revision

1. Spivak-Kroizman T, Hostetter G, Posner R, Aziz M, **Hu C**, Demeure M, Von Hoff D, Hingorani S, Palculict TB, Kiriakova GM, Abdelmelek M, Bartholomeusz G, James BP, and Powis G (2012). Hypoxia mediates a novel tumor-stroma interaction through Hedgehog signaling in pancreatic cancer. Submitted.
2. Olson ER, Henricksen LA, Luecke L, Chafin DR, Rajagopalan N, Rodríguez JJ, Boswell CA, Elliott DA, **Hu C**, Einspahr JG, Alberts DS, Bowden GT, and Dixon K (2012). Phosphorylation of replication protein A is a detectable biomarker for UVB-induced DNA damage in skin. Submitted.

Work in Progress

1. **Hu C** and De Gruttola V (2012). A U-statistic based random forest approach for longitudinal markers and haplotypes.
2. **Hu C** and De Gruttola V (2012). Time-varying trees for longitudinal genetic sequences of HIV.
3. Aweeka FT, **Hu C**, Huang L, Best BM, Stek A, Lizak P, Burchette SK, Read J, Mirochnick M, Capparelli EV, and the International Maternal Pediatric Adolescent AIDS Clinical Trials Group (IMPAACT) P1026S Protocol Team (2012). Alteration in cytochrome P450 3A4 activity in HIV-1 infected pregnant women and relationship to antiretroviral pharmacokinetics.
4. Silio M, Sirois PA, **Hu C**, Britto P, Flynn PM, Goodenow MM, Sleasman JW, Fletcher C, Ferguson E, Van Dyke R, and the P1034 Study Team (2012). Evaluation of Adherence Measures in Adolescents with HIV.

Peer-Reviewed Abstracts

1. McKinney R, Rathore M, Jankelovich S, Mofenson L, Wang L, Reynolds L, Hughes M, **Hu C**, Draper L, Buckley E, Purdue L, Ortiz A, Dickover R, Weinberg A, Rodman J (2003). PACTG 1021: an ongoing phase I/II study of once-daily emtricitabine, didanosine, and efavirenz in therapy-naive or minimally treated pediatric patients. The 10th Conference on Retroviruses and Opportunistic Infections, Boston, MA.
2. McKinney R, Rodman J, Rathore M, **Hu C**, Flynn P, Hughes M, Dickover R, Weinberg A, Blum MR, Sahner D, Jankelevich S, Serchuck L, Ortiz B, Tran P, and Pediatric AIDS Clinical Trials Group (2004). Extended follow-up and pharmacokinetics for once daily emtricitabine, didanosine, and efavirenz for antiretroviral nave children and adolescents. The 11th Conference on Retroviruses and Opportunistic Infections, San Francisco, CA.
3. Stek A, Mirochnick M, Capparelli E, Best B, Burchett SK, **Hu C**, Gardella J, Elgie C, Schiffhauer J, Smith E, Read J, and Tuomala R (2004). Reduced lopinavir exposure during pregnancy: preliminary pharmacokinetic results from pactg 1026. The 15th International AIDS Conference, Bangkok, Thailand.
4. Best B, Capparelli EV, Stek A, Burchett S, Read J, Smith E, **Hu C**, Gardella J, Elgie C, Schiffhauer J, Mirochnick M, and PACTG 1026S Study Team (2004). Abacavir pharmacokinetics during pregnancy. *Journal of clinical pharmacology*. 44 (10), 1199.
5. Capparelli E, Aweeka F, Best B, **Hu C**, Hitti J, Frenkel L, Stek A, and Mirochnick M (2005). Effect of pregnancy on nevirapine pharmacokinetics during chronic therapy. The 6th International Workshop on Clinical Pharmacology of HIV Therapy, Qubec City, Quebec, Canada.
6. McKinney R, Rathore M, **Hu C**, Britto P, Smith M, Serchuck L, Rodman J, Draper L, Reynolds L, Chittick G, and Pediatric ACTG Protocol 1021 Team (2006). Phase I/II study of a once-daily regimen of emtricitabine, didanosine, and efavirenz in HIV-infected, therapy-naive children and adolescents: PACTG Protocol 1021. The 13th Conference on Retroviruses and Opportunistic Infections, Denver, CO.
7. Dickover R, Smith D, Britto P, **Hu C**, Weinberg A, Rathore M, McKinney R, and the P1021 Study Team (2006). TREC Response in P1021: A once-daily regimen of emtricitabine, didanosine, and efavirenz in previously naive children. The 13th Conference on Retroviruses and Opportunistic Infections, Denver, CO.

8. Weinberg A, Britto P, **Hu C**, Dickover R, Rathore M, McKinney R, and PACTG Team P1021 (2006). Virologic and immunologic correlates of immune reconstitution in HIV-infected children on FTC/DDI/EFV: PACTG Protocol P1021. The 13th Conference on Retroviruses and Opportunistic Infections, Denver, CO.
9. Mirochnick M, Stek A, Capparelli E, Best B, Holland D, Connor J, Burchett S, **Hu C**, Smith E, Read J, and PACTG 1026S Protocol Team (2006). Adequate lopinavir exposure achieved with a higher dose during the third trimester of pregnancy. The 13th Conference on Retroviruses and Opportunistic Infections, Denver, CO.
10. Weinberg A, Britto P, **Hu C**, Dickover R, Patterson J, Smith D, Gutzman H, Kraimer J, Rathore M, McKinney M, and PACTG P1021 Team (2007). Delayed recovery of HIV-specific CD4-mediated immunity in HIV-Infected Children on their first HAART regimen (PACTG P1021). The 14th Conference on Retroviruses and Opportunistic Infections, Los Angeles, CA.
11. Read JS, Best B, Stek A, **Hu C**, Capparelli E, Holland D, Burchett SK, Smith E, Sheeran B, and Mirochnick M (2007). Nelfinavir pharmacokinetics (625-mg tablets) during the third trimester of pregnancy and post-partum. The 14th Conference on Retroviruses and Opportunistic Infections, Los Angeles, CA.
12. Aweeka FT, Stek A, Best B, **Hu C**, Holland D, Hermes A, Burchett S, Read J, Mirochnick M, and Capparelli EV. (2007). Lopinavir protein binding during pregnancy. The 14th Conference on Retroviruses and Opportunistic Infections, Los Angeles, CA.
13. Burchett S, Best B, Mirochnick M, **Hu C**, Capparelli E, Holland D, Smith E, Sheeran B, Read J, Stek A, and PACTG P1026S Team (2007). Tenofovir pharmacokinetics during pregnancy, at delivery and postpartum. The 14th Conference on Retroviruses and Opportunistic Infections, Los Angeles, CA.
14. Rathore M, McKinney R, **Hu C**, Britto P, Smith M, Serchuck L, Draper L, Reynolds L, Chittick G, Weinberg A, and the PACTG 1021 Protocol Team (2008). PACTG protocol 1021: a phase I/II study of a once-daily regimen of emtricitabine, didanosine, and efavirenz in HIV-infected, therapy-naïve children and adolescents. The 15th Conference on Retroviruses and Opportunistic Infections, Boston, MA.
15. Best BM, Stek A, **Hu C**, Burchett SK, Rossi SS, Smith E, Sheeran B, Read JS, Capparelli EV, and Mirochnick M for the PACTG/IMPAACT P1026S Team

- (2008). High-dose lopinavir and standard-dose emtricitabine pharmacokinetics during pregnancy and postpartum. The 15th Conference on Retroviruses and Opportunistic Infections, Boston, MA.
16. Gaur A, Belzer M, Britto P, Garvie P, **Hu C**, Graham B, Klingman K, Neely M, McSherry G, and Flynn P for the Pediatric AIDS Clinical Trials Group P1036B Team (2008). Directly observed therapy for non-adherent HIV infected adolescents - lessons learned, challenges ahead. The 15th Conference on Retroviruses and Opportunistic Infections, Boston, MA.
 17. Garvie PA, Flynn PM, Britto P, Belzer M, **Hu C**, Graham B, Klingman K, Neely M, McSherry GD, and Gaur AH for the Pediatric AIDS Clinical Trials Group P1036B Team (2008). Psychological factors, beliefs about medicine, and adherence of youth with HIV-1 in a directly observed therapy (DOT) pilot study. The 3rd International Conference on HIV Treatment Adherence, Jersey City, NJ.
 18. Capparelli E, Rochon-Duck M, Robbins B, Rathore M, Britto P, **Hu C**, Weinberg A, Browning R, Hazra R, McKinney R, and IMPAACT P1021 Study Team (2009). Age-related Pharmacokinetics of Efavirenz Solution. The 16th Conference on Retroviruses and Opportunistic Infections, Montreal, Canada.
 19. Mirochnick M, Stek A, Capparelli E, Best B, Rossi S, Burchett S, **Hu C**, Sheeran E, Smith E, Read J, and PACTG 1026s Protocol Team (2009). Atazanavir Pharmacokinetics with and without Tenofovir during Pregnancy. The 16th Conference on Retroviruses and Opportunistic Infections, Montreal, Canada.
 20. Curiel-Lewandrowski C, LaPresto L, **Hu C**, Saboda K, Krutzsch M, Nagle R, and Einsphar J (2011). Correlation between VEGF-A, VEGFR-1, pAkt, and pErk expression in melanocytic lesions and degree of histological atypia. *Journal of Investigative Dermatology*, 131, S128.
 21. Spivak-Kroizman TR, Hostetter G, Posner R, Aziz M, **Hu C**, Demeure M, Von Hoff D, Hingorani S, Palculict TB, Abdelmelek M, Bartholomeusz G, James BP, and Powis G (2011). Stromal desmoplasia is induced by a hypoxia and HIF-1 α mediated increase in sonic hedgehog formation in pancreatic cancer. *Proceedings of the 102nd Annual Meeting of the American Association for Cancer Research*; 2011 Apr 2-6; Orlando, FL. *Cancer Research*, 2011; 71(8 Suppl), Abstract 513.
 22. Whatcott CJ, Jiang P, Watanabe A, Hostetter G, **Hu C**, Shepard M, Frost G, Von Hoff D, and Han H (2011). Hyaluronan deposition correlates with poor survival in pancreatic cancer. *Proceedings of the 102nd Annual Meeting of*

- the American Association for Cancer Research*; 2011 Apr 2-6; Orlando, FL. *Cancer Research*, 2011; 71(8 Suppl), Abstract LB-307.
23. Hibler EA, **Hu C**, Jurutka PW, Martínez ME, Wagoner CL, and Jacobs ET (2011). Effect of over-the-counter vitamin D supplementation on circulating 25-hydroxyvitamin D concentration. *Cancer Prevention Research*, 2011; 4(10 Suppl):B103.
 24. Chen Z, Wright NC, Bea J, Klimecki W, **Hu C**, Grant A, Masaki K, Qi L, Wactawski-Wende J, Allison M, Thompson P (2012). Blood circulated catabolic and anabolic biomarkers associated with skeletal muscle mass in Hispanic and non-Hispanic postmenopausal women – an ancillary study of the Women’s Health Initiative. The American Society for Bone and Mineral Research (ASBMR) 2012 Annual Meeting, Minneapolis, MN.
 25. Chen Z, Jiang P, **Hu C**, Arendell L, Robbins J, Missoum S (2012). The incorporation of support vector machines and hip geometric structure assessments in the development of hip fracture risk prediction model. The American Society for Bone and Mineral Research (ASBMR) 2012 Annual Meeting, Minneapolis, MN.
 26. Morshed T, Beach T, **Hu C**, Shill H, Adler C, Belden C, Davis K, Sue L, Sabbagh M, and Jacobson S (2013). Neuropathological correlates of visual hallucinations in Parkinsonism. The American Academy of Neurology 65th Annual Meeting, San Diego, CA.

SCHOLARLY PRESENTATIONS

Conference Presentations

- Hu C** and Lin DY: Cox regression with covariate measurement error, 1999 International Biometric Society (WNAR) Meeting, Seattle, WA (contributed).
- Hu C** and Lin DY: Cox regression with covariate measurement error, International Biometric Conference 2000, Berkeley, CA (contributed).
- Hu C** and Lin DY: Corrected imputation method for Cox regression, 2000 Joint Statistical Meetings, Indianapolis, IN (contributed).
- Hu C** and Lin DY: Analysis of recurrent event data with covariate measurement error, 2002 International Biometric Society (ENAR) Meeting, Crystal City, VA (contributed).

Hu C and De Gruttola V: Joint modeling of interval censored HIV mutations and failure time data, 2008 International Biometric Society (ENAR) Meeting, Crystal City, VA (invited).

Hu C and De Gruttola V: A U-statistic based random forest approach for longitudinal markers, 2011 Joint Statistical Meetings, Miami Beach, FL (contributed).

Invited Colloquia and Seminars

Cox regression with covariate measurement error, Genentech, Inc., South San Francisco, CA, 1999.

Cox-type regression with covariate measurement error, St. Jude Children's Research Hospital, 2000.

Cox regression with mismeasured or missing covariates, Department of Statistics, North Carolina State University, 2001; Department of Statistics, University of Illinois at Urbana-Champaign, 2001; Division of Biostatistics, Ohio State University, 2001; Department of Biostatistics, University of Michigan, 2001; Department of Statistics, Florida State University, 2001; Department of Biostatistics, Harvard School of Public Health, 2001; Department of Biostatistics, University of North Carolina, 2001; Division of Biostatistics, Indiana University, 2001; Division of Biostatistics, University of Texas, 2001; Department of Biostatistics, Boston University, 2001; Department of Oncology, Johns Hopkins University, 2001; Department of Epidemiology and Biostatistics, University of California, San Francisco, 2001.

Joint modeling of HIV resistance mutations and failure time data, Division of Biostatistics, Yale School of Public Health, New Haven, CT, 2004.

Joint modeling of progression of HIV resistance mutations measured with uncertainty and failure time data, Department of Statistics, University of Missouri, Columbia, MO, 2006.

Recursive partitioning methods in the study of HIV resistance mutations, Massachusetts General Hospital, Boston, MA, 2007; Children's Hospital Boston, Boston, MA, 2008; University of Arizona Mel and Enid Zuckerman College of Public Health, 2008.

Recursive partitioning in the analysis of longitudinal markers, Arizona Cancer Center, Tucson, AZ, 2008.

Time-varying trees in the study of HIV resistance mutations, University of Arizona Mel and Enid Zuckerman College of Public Health, Tucson, AZ, 2011.

A random forest approach for longitudinal markers and unobserved haplotypes, University of Arizona Mel and Enid Zuckerman College of Public Health, Tucson, AZ, 2012.

GRANT AND CONTRACT

Current Grants and Contracts (funding amount is for most recent year if not indicated otherwise)

NIH/NCI P01CA027502 (PI: Alberts), 7/1/11 – 6/30/16, \$942,451

Chemoprevention of Skin Cancer Program Project

Role: Director of Biometry Core (15% FTE)

The Biometry Core provides statistical and data management support to all projects and other cores of this grant, and as a unique expertise provides support to clinical trials involving karyometric endpoints. As the core director I oversee all aspects of this core, integrate core activities with the grant objectives, participate in study design and monitoring, lead all data analysis efforts, and co-author manuscripts. In addition, I develop new statistical methods for the analysis of karyometric data.

NIH/NCI P30CA23074 (PI: Alberts), 7/1/09 – 6/30/14, \$235,264

Arizona Cancer Center Support Grant

Role: Co-Investigator (2% FTE)

My work is to provide statistical support for research at the Arizona Cancer Center.

CDC/NIOSH 1R01OH009469 (PI: Burgess), 9/1/09 – 8/31/13, \$337,026

Implementing Risk Management Strategies To Prevent Injuries Among Firefighters

Role: Co-Investigator (10% FTE)

My work is to provide statistical expertise for all aspects of this grant.

FEMA AFG (PI: Burgess), 4/23/10 – 4/22/13, \$1,000,000 (3-year)

Firefighter Statin Trial

Role: Co-Investigator (10% FTE)

My work is to provide statistical expertise for the design, conduct, and data analysis of this clinical trial.

CDC/NIOSH R01 OH009878 (PI: Burgess), 07/01/12 – 06/30/15, \$493,373

Comparison of Diesel and Biodiesel Emissions and Health Effects in Underground Mining

Role: Co-Investigator (10% FTE)

My work is to provide statistical expertise for the design, conduct, and analysis of this study.

NIH/NCI 1U01CA153086-01 (PIs: Martínez and Futscher), 9/17/10 – 8/31/15, \$321,936

Epigenetic Features of Pregnancy-Associated Breast Cancer in Hispanic Women
Role: Co-Investigator (5% FTE)

My work is to provide statistical expertise for all aspects of this grant.

NIH/NIAMS R21AR060811 (PI: Chen), 10/1/11 – 9/30/13, \$109,322

A New Hip Fracture Risk Prediction Tool Based on Common Predictors and Hip Geometry

Role: Co-Investigator (9% FTE)

My work is to provide statistical expertise for this grant.

Phoenix Children's Hospital Contract (PI: Hu), 7/1/12 – present, \$28,864

Collaborative Research at the Phoenix Children's Hospital

Role: Principal Investigator (20% FTE)

My work is to provide statistical expertise in the development of research protocols and analysis of data.

Completed Grants

NIH/NIAID R01AI051164 (PI: De Gruttola; Subcontract PI: Hu), 7/1/09 – 11/30/11, \$56,591

Methods for Long-Term Follow-Up of HIV-Infected Patients

Role: Principal Investigator of University of Arizona subcontract (25 ~ 30% FTE)

My work is to develop novel high-dimensional statistical methods to investigate the relationship between high dimensional genetic and genomic information with clinical outcomes.

NIH/NCI 5U01 CA128454 (PI: Cunningham), 7/1/09 - 6/30/11, \$65,596

Tumor Glycomics Laboratory for Pancreatic Carcinoma

Role: Co-Investigator (2% FTE)

My work is to provide statistical expertise for the analysis of newly developed glycomic biomarkers.

NIH/NCI P01CA027502 (PI: Alberts), 10/1/08 – 12/31/10, \$750,000

Chemoprevention of Skin Cancer Program Project

Role: Director of Biometry Core (17% FTE before 2/1/10; 0% FTE during the bridging period 2/1/10 – 12/31/10)

As the core director I oversaw all aspects of this core, integrated core activities with the grant objectives, participated in study design and monitoring, lead all data analysis efforts, and co-authored manuscripts.

NIH/NCI P01CA109552 (PI: Von Hoff), 7/1/09 – 8/31/10, \$65,000

Targets to Therapeutics in Pancreatic Cancer

Role: Co-Director of Pattern Analysis and Computational Biology Core (8 ~ 12% FTE)

As a co-director of this core I oversaw all statistical activities of this grant, participated in study design, conducted data analysis, and co-authored manuscripts.

CDC/NIOSH 200-2008-24858 (PI: Burgess), 1/1/09 – 11/1/09, \$12,600
Development of a Severe Injury Surveillance System for Hazard Identification and Guiding Technological Interventions

Role: Co-Investigator (10% FTE)

My work was to provide statistical expertise for this grant.

NIH U01AI068616 (PI: Fenton), 6/29/06 – 6/30/08

Statistical and Data Management Center - International Maternal Pediatric Adolescent AIDS Clinical Trials Group

Role: Senior Statistician (50 ~ 90% FTE)

My work was to provide statistical expertise and leadership in the design, conduct, and analysis of clinical trials.

NIH R01AI051164 (PI: De Gruttola), 7/1/04 – 12/31/07

Methods for Long-Term Follow-Up of HIV-Infected Patients

Role: Co-Investigator (25 ~ 40% FTE)

My work was to develop novel statistical methods for the study of HIV resistance mutations.

NIH U01AI041110 (PIs: Hughes, Fenton), 9/1/01 – 6/28/06

Statistical and Data Management Center - Pediatric AIDS Clinical Trials Group

Role: Senior Statistician (45 ~ 60% FTE)

My work was to provide statistical expertise and leadership in the design, conduct, and analysis of clinical trials.

R37AI024643 (PI: Lagakos), 9/1/01 – 6/30/04

Statistical Methods in AIDS Research

Role: Co-Investigator (25% FTE)

My work was to conduct research in statistical methodology.

TEACHING ACTIVITIES

Courses Taught as Main Instructor

University of Arizona Mel and Enid Zuckerman College of Public Health:

Spring 2009 EPID/CPH 647 Analysis of Categorical Data (Enrollment=14)

Spring 2009 EPID/CPH 648 Analysis of High Dimensional Data (Enrollment=5)

Spring 2010 EPID/CPH 647 Analysis of Categorical Data (Enrollment=15)
Spring 2010 EPID/CPH 648 Analysis of High Dimensional Data (Enrollment=7)
Spring 2011 EPID/CPH 647 Analysis of Categorical Data (Enrollment=11)
Spring 2011 EPID/CPH 648 Analysis of High Dimensional Data (Enrollment=10)
Spring 2012 EPID/CPH 647 Analysis of Categorical Data (Enrollment=7)
Spring 2012 EPID/CPH 648 Analysis of High Dimensional Data (Enrollment=12)
Spring 2013 EPID/CPH 647 Analysis of Categorical Data (Enrollment=6)
Spring 2013 STAT 675 Statistical Computing (Enrollment=16)

University of Arizona College of Medicine – Phoenix:

Fall 2012 Quantitative Reasoning (seven modules, ~ 25% FTE)

Harvard School of Public Health:

Fall 2003 BIO275 Operational Mathematics
Fall 2004 BIO275 Operational Mathematics
Fall 2005 BIO275 Operational Mathematics
Fall 2006 BIO275 Operational Mathematics
Spring 2008 BIO211 Regression and Analysis of Variance in Experimental Research

Guest Lecturer

University of Arizona Mel and Enid Zuckerman College of Public Health:

Fall 2008 EPID/CPH 685 Statistical Consulting (Enrollment=17)
Summer 2011 Public Health 101 Series, MEZCOPH Global Health Institute
Summer Research Training (Enrollment=10)

Other Teaching

Program faculty member, Sequencing the Genome symposium, Phoenix, AZ,
February 11-12, 2011

Statistical consultant for the Scholarly Project program, University of Arizona Col-
lege of Medicine – Phoenix, Phoenix, AZ, 7/1/2012 – present (~ 25% FTE)

Student Advising

Academic advisor

Muhan Zhou (MPH, Biostatistics), graduated 2009

Jie Pu (MPH, Biostatistics), graduated 2011

Ping Yuan (MPH, Biostatistics), graduated 2012

Rakesh Gaddam (Ph.D., Biostatistics), 2010-2012

Mike Gura (MPH, Biostatistics), current

Muhan Zhou (Ph.D., Biostatistics), current

Dissertation advisor

Lysbeth Ford Floden (Ph.D., Biostatistics), current

Shuang Huang (Ph.D., Biostatistics), current

Monica Vasquez (Ph.D., Biostatistics), current

Kirsten Yaffe (Ph.D., Biostatistics), current

Dissertation/thesis committee, other than as advisor

University of Arizona:

Sheetal Shetty (M.S., Epidemiology, graduated 2009)

Elizabeth Hibler (Ph.D., Epidemiology, graduated 2011)

Jaclyn Herrera (M.S., Biostatistics, graduated 2012)

Qihong Zhao (Ph.D., Biostatistics, current)

Harvard School of Public Health:

Maria Shubina (Sc.D., Biostatistics, graduated 2005)

Brian Healy (Ph.D., Biostatistics, graduated 2006)

Caitlin Thomas Ravichandran (Ph.D., Biostatistics, graduated 2007)

Mentoring

Denise H. Frank (Research Assistant Professor, Arizona Cancer Center), mentoring committee member (K01), 2008–2011

Elizabeth A. Hibler (Postdoctoral Research Associate, Arizona Cancer Center), co-mentor (R25), 2011–present

Internship

Clara Kibor, internship committee member, 2009

Jie Pu, internship committee chair, 2011

Ping Yuan, internship committee chair, 2012

Mike Gura, internship committee chair, current

Jianhua Wang Hilgaertner, internship committee member, current

Independent Study Directed

Weiqun Tong, Fall 2009 (1 unit)

Guanglin Wu, Spring 2010 (4 units)

Guanglin Wu, Fall 2010 (4 units)

Guanglin Wu, Spring 2011 (4 units)

Lysbeth Floden, Fall 2011 (6 units)

Shuang Huang, Fall 2011 (3 units)

Ekta Marwah, Fall 2011 (4 units)

Muhan Zhou, Fall 2011 (3 units)

Lysbeth Floden, Spring 2012 (6 units)

Shuang Huang, Spring 2012 (3 units)

Monica Vasquez, Spring 2012 (3 units)

Lysbeth Floden, Fall 2012 (6 units)

Monica Vasquez, Fall 2012 (3 units)

Kirsten Yaffe, Fall 2012 (3 units)

Muhan Zhou, Fall 2012 (3 units)

Lysbeth Floden, Spring 2013 (3 units)

Shuang Huang, Spring 2013 (4 units)

Monica Vasquez, Spring 2013 (3 units)

Kirsten Yaffe, Spring 2013 (3 units)

Muhan Zhou, Spring 2013 (3 units)

This is a true and accurate statement of my activities and accomplishments. I understand that misrepresentation in securing promotion and tenure may lead to dismissal or suspension under ABOR Policy 6-201 J.1.b.

Chengcheng Hu

February, 2013