

# CURRICULUM VITAE

**Barbra A. Richardson, PhD**

## 1. Biographical Information

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## 2. Education

Pomona College, Claremont, California, BA Mathematics, 1987  
University of California, Los Angeles, California, MS Biostatistics, 1989  
University of California, Los Angeles, California, PhD Biostatistics, 1993

## 3. Licensure

Not applicable

## 4. Professional Positions

Actuarial Student, Milliman & Robertson, Inc., Portland, Oregon, (summers) 1985-87  
Research Assistant, School of Public Health, University of California, Los Angeles, California, 1987-92  
Teaching Assistant, Department of Biostatistics, University of California, Los Angeles, California, 1988-89  
Statistical Consultant, Dispute Analysis and Corporate Recovery Department, Price Waterhouse, Century City, California, (summers) 1989-90  
Research Assistant, Southern California Injury Prevention Research Center, University of California, Los Angeles, California, 1990-92  
Post-Doctoral Fellow, Department of Medicine, Division of Allergy and Infectious Diseases, University of Washington, Seattle, Washington, 1994-96  
Research Assistant Professor, Department of Biostatistics, University of Washington, Seattle, Washington, 1996-2003  
Joint Assistant Member, Biostatistics, Public Health Sciences, Fred Hutchinson Cancer Research Center, 1998-2004  
Director, Biostatistics Track, Fogarty International AIDS Research and Training Program, University of Washington, 2003-2013  
Research Associate Professor, Department of Biostatistics, University of Washington, Seattle, Washington, 2003-2009  
Joint Associate Member, Biostatistics, Public Health Sciences, Fred Hutchinson Cancer Research Center, 2004-2009  
Research Affiliate, Washington National Primate Research Center, University of Washington, 2008-2012  
Research Professor, Department of Biostatistics, University of Washington, Seattle, Washington, 2009-present  
Joint Member, Biostatistics, Public Health Sciences, Fred Hutchinson Cancer Research Center, 2009-present  
Adjunct Research Professor, Department of Global Health, University of Washington, 2011-present  
Co-Director, UW CFAR Biometrics Core, 2014-present

## 5. Honors and Awards

Awardee, William Honnold Fellowship for Graduate Study, Pomona College, 1987  
Elected Member, Iota Chapter of the Delta Omega Society (honorary public health society), UCLA, 1989  
Ruth F. Richards Outstanding Student Award, UCLA School of Public Health Alumni Association, 1992

June 29, 2016

Finalist, Society for Clinical Trials Student Scholarship, 1992  
International AIDS Society Young Investigator Award, XIII International AIDS Conference, Durban, South Africa, 2000  
Nominee, University of Washington Distinguished Graduate Mentor Award, 2001  
Who's Who in Science and Engineering, 2006-2007  
Who's Who in the World, 2008-2009

## **6. Professional Activities (outside of UW)**

Student Representative, Department of Biostatistics, Public Health Student Association, UCLA, 1990-92  
Vice President and Treasurer, Biological Sciences Council, Graduate Student Association, UCLA, 1991-92  
Statistical Reviewer, Journal of Infectious Diseases, 1994-2002  
Member, HIV Prevention Trials Network STD Working Group, 1999-2000  
Member HIV Prevention Trials Network Microbicide Working Group, 2000-2006  
Member, Bordeaux International Working Group on Methodology for Trials and Mother-to-Child Transmission of HIV-1, 2000-2006  
Reviewer, NICHD Review Committee for RFA for a Global Network Research unit for Women's and Children's Health, 2000  
Reviewer, XIV International AIDS Conference, 2002  
Reviewer, Canadian Institutes of Health Research, 2002  
Steering Committee Member, 6th National Symposium of the National Institutes of Health Centers for AIDS Research, 2002  
Member, HIV Vaccine Trials Network Safety Monitoring Board, 2003-2012  
Reviewer, Nestle Foundation, 2003  
Advisor, Workshop to discuss data analysis of studies on infant feeding and HIV-transmission and HIV-free survival, World Health Organization, Geneva, Switzerland, November 2003  
Reviewer, XV International AIDS Conference, 2004  
Chair, Data Safety and Monitoring Board for "Methods for Improving Reproductive Health in Africa" (MIRA) trial, Bill and Melinda Gates Foundation, 2004-2007  
Reviewer, NIAID Review Panel for RFP for the DAIDS Virology Quality Assurance Program, March 2005  
Reviewer, 3rd IAS Conference on HIV Pathogenesis and Treatment, 2005  
Expert Witness, undisclosed case, Round Table Group, 2005-2008  
Member, Data Safety and Monitoring Board for Theratechnologies Inc. Protocol TH9507/III/LIPO/010, 2005-2007  
Member, Data Safety and Monitoring Board for Theratechnologies Inc. Protocol TH9507/III/LIPO/011, 2006-2008  
Chair, Data Safety and Monitoring Board for "Contraceptive Effectiveness and Safety Study of the SILCS Diaphragm: the Pivotal Study", CONRAD, 2007-2009  
Regional Committee Member, WNAR of IBS, 2005-2007  
Scientific Reviewer, Bill and Melinda Gates Foundation, 2008  
Chair, Data Safety and Monitoring Board for "Sperm suppression and contraceptive protection provided by Norethisterone Enantate (Net-En) combined with Testosterone Undecanoate (TU) in healthy men", CONRAD and WHO, 2008-2011  
Member, Data Safety and Monitoring Board for "An open-label randomized study of pneumococcal conjugate vaccination in HIV in comparison to polysaccharide vaccine boosting in previously vaccinated patients", Tri-Service AIDS Research Clinical Consortium, NIH, U.S. Military HIV Research Program, 2008.  
Member, Data Safety and Monitoring Board for "Prospective study on the incidence, predictors, and characteristics of Methicillin-resistant Staphylococcus aureus infections and a randomized double blind study on decolonization procedures for prevention of MRSA infections among HIV-infected persons, Infectious Disease Clinical Research Program, Naval Medical Center, San Diego, 2009-2011.

Reviewer, NICHD Special Emphasis Panel: U01 and U10 applications on “Pelvic Floor Disorders Network Centers and Data Coordinating Centers, November 2010.

Member, Data Safety and Monitoring Board for “Pericoital oral contraception with Levonorgestrel: A prospective, open-label, single-arm, multicenter study to evaluate efficacy, safety and acceptability”. World Health Organization Study Number A65719. 2011-2013.

Member, Data Safety and Monitoring Board for “A phase 2b randomized, double-blind, double-dummy trial of 100 or 200 mg once-daily doses of Cenicriviroc (CVC, TBR-652) or once-daily EFV, each with open-label FTC/TDF in HIV-1 infected, antiretroviral treatment-naïve, adult patients with only CCR5-tropic virus. Tobira Therapeutics, Inc. 2011-present.

Reviewer, Grant submissions to Office of Research and Development, Veterans Health Administration, March 2012

Member, Data Safety and Monitoring Board for “EGRIFTA® Phase IV Diabetic Retinopathy and Long Term Observational Studies (EMR200147-500 and EMR200147-501)”. EMD Serono, Inc./Theratechnologies Inc. 2012-present.

Expert Witness, undisclosed case, Kelley Drye Attorneys, 2013-2014

Expert Witness, undisclosed case, Pepper Hamilton LLC, 2014-present

Member, Data Safety and Monitoring Board for “Protocol 14-0014, A Randomized Open-label Phase 2 Study to Evaluate the Efficacy and Safety of a Single Dose of Oral AZD0914 Compared to Intramuscular Ceftriaxone in the Treatment of Male and Female Subjects with Uncomplicated Gonorrhea”. DMID, NIAID, 2014-present

Reviewer, Qatar National Research Fund, 2015

#### **Journal Review:**

##### Editorial Board:

*AIDS*, 2006-2010

*Statistical Communications in Infectious Diseases*, Editor, 2015-present

##### Referee:

*AIDS*

*American Journal of Epidemiology*

*Antiviral Therapy*

*Biometrics*

*Clinical Trials: Journal of the Society for Clinical Trials*

*Expert Review of Anti-infective Therapy*

*Journal of Acquired Immune Deficiency Syndromes*

*Journal of the American Medical Association*

*Journal of Infectious Diseases*

*Journal of Virological Methods*

*Journal of Virology*

*Nature*

*Nature Medicine*

*PLoS One*

*Sexually Transmitted Diseases*

*Statistics in Medicine*

*The American Journal of the Medical Sciences*

*The Lancet*

*The Lancet Infectious Diseases*

#### **Current and Previous Membership in Professional Organizations:**

American Statistical Association

Biometric Society, WNAR

International AIDS Society

Society for Clinical Trials

## 7. Bibliography

### a) Refereed research articles

1. Blake J, **Richardson BA**, Bhattacharya JF: Number of siblings and sociability. *J Marriage Fam* 53:271-283, 1991.
2. Sorenson SB, **Richardson BA**, Peterson JG: Race/ethnicity patterns in the homicide of children in Los Angeles, 1980 through 1989. *Am J Public Health* 83:725-727, 1993. PMID: PMC1694702.
3. Nduati RW, John GC, **Richardson BA**, Overbaugh J, Welch M, Achola JN, Moses S, Holmes K, Onyango F, Kreiss JK: Human immunodeficiency virus type 1-infected cells in breast milk: association with immunosuppression and vitamin A deficiency. *J Infect Dis* 172:1461-1468, 1995. PMID: PMC3358135.
4. **Richardson BA**, Flack VF: The analysis of incomplete data in the three-period two-treatment crossover design for clinical trials. *Stat Med* 15:127-143, 1996.
5. John GC, Nduati RW, Mbori-Ngacha D, Overbaugh J, Welch M, **Richardson BA**, Ndinya-Achola J, Bwayo J, Onyango F, Kreiss JK: Genital shedding of human immunodeficiency virus type 1 DNA during pregnancy: association with immunosuppression, abnormal cervical or vaginal discharge, and severe vitamin A deficiency. *J Infect Dis* 175:57-62, 1997. PMID: PMC3372419.
6. Martin HL, Stevens CE, **Richardson BA**, Rugamba D, Nyange PM, Mandaliya K, Ndinya-Achola JO, Kreiss JK: Safety of a nonoxynol-9 vaginal gel in Kenyan prostitutes: A randomized clinical trial. *Sex Trans Dis*, 24:279-283, 1997.
7. Jackson DJ, Rakwar JP, **Richardson BA**, Mandaliya K, Chohan BH, Bwayo JJ, Ndinya-Achola JO, Martin HL, Moses S, Kreiss JK: Decreased incidence of sexually transmitted diseases among trucking company workers in Kenya: Results of a behavioural risk reduction programme. *AIDS* 11:903-909, 1997.
8. Lewis P, Nduati R, Kreiss JK, John GC, **Richardson BA**, Mbori-Ngacha D, Ndinya-Achola JO, Overbaugh J: Cell-free human immunodeficiency virus type 1 in breast milk. *J Infect Dis*, 177:34-39, 1998. PMID: PMC3358132.
9. **Richardson BA**, Martin HL, Stevens CE, Hillier SL, Mwatha AK, Chohan BH, Nyange PM, Mandaliya K, Achola JO, Kreiss JK: Use of Nonoxynol-9 and changes in vaginal lactobacilli. *J Infect Dis*, 178:441-445, 1998.
10. Martin HL, Nyange PM, **Richardson BA**, Lavreys L, Mandaliya K, Jackson DJ, Ndinya-Achola JO, Kreiss JK: Hormonal contraception, sexually transmitted diseases, and risk of heterosexual transmission of human immunodeficiency virus type 1. *J Infect Dis*, 178:1053-1059, 1998.
11. Polacino P, Stallard V, Klaniecki JE, Montefiori D, Langlois AJ, **Richardson BA**, Overbaugh, J, Morton WR, Benveniste RE, Hu SL: Limited breadth of the protective immunity elicited by SIVmne gp160 vaccines in a combination immunization regimen. *J Virol*, 73:618-630, 1999. PMID: PMC103868.
12. Panteleeff DD, John G, Nduati R, Mbori-Ngacha D, **Richardson B**, Kreiss J, Overbaugh J: Rapid method for screening dried blood samples on filter paper for human immunodeficiency virus type 1 DNA. *J Clin Microbiol*, 37:350-353, 1999. PMID: PMC84304.
13. Polacino P, Stallard V, Montefiori DC, Brown CR, **Richardson BA**, Morton WR, Benveniste RE, Hu SL: Protection of macaques against intrarectal infection by a combination immunization regimen with recombinant SIVmne gp160 vaccines. *J Virol*, 73:3134-3146, 1999. PMID: PMC104075.

14. Neilson JR, John GC, Carr JK, Lewis P, Kreiss JK, Jackson S, Nduati RW, Mbori-Ngacha D, Panteleeff DD, Bodrug S, Giachetti C, Bott MA, **Richardson BA**, Bwayo J, Ndinya-Achola J, Overbaugh J: Subtypes of human immunodeficiency virus type 1 and disease stage among women in Nairobi, Kenya. *J Virol*, 73:4393-4403, 1999. PMID: PMC104220.
15. Overbaugh J, Kreiss J, Poss M, Lewis P, Mostad S, John G, Nduati R, Mbori-Ngacha D, Martin H, **Richardson B**, Jackson S, Neilson J, Long EM, Panteleeff D, Welch M, Rakwar J, Jackson D, Chohan B, Lavreys L, Mandaliya K, Ndinya-Achola J, Bwayo J: Studies of human immunodeficiency virus type 1 mucosal viral shedding and transmission in Kenya. *J Infect Dis*, 179:S401-S404, 1999.
16. Polacino P, Stallard V, Klaniecki JE, Pennathur S, Montefiori DC, Langlois AJ, **Richardson BA**, Morton WR, Benveniste RE, Hu SL: Role of immune responses against the envelope and the core antigens of SIVmne in protection against homologous cloned and uncloned virus challenge in macaques. *J Virol*, 73:8201-8215, 1999. PMID: PMC112838.
17. **Richardson BA**, Morrison CS, Sekadde-Kigonda C, Sinei S, Overbaugh J, Panteleeff DD, Weiner DH, Kreiss JK: Effect of intrauterine device use on cervical shedding of HIV-1 DNA. *AIDS*, 13:2091-2098, 1999.
18. Martin HL, **Richardson BA**, Nyange PM, Lavreys L, Hillier SL, Chohan B, Mandaliya K, Ndinya-Achola JO, Bwayo JJ, Kreiss JK: Vaginal lactobacilli, microbial flora, and risk of HIV-1 and STD acquisition. *J Infect Dis*, 180:1863-1868, 1999.
19. Nduati R, John G, Mbori-Ngacha D, **Richardson B**, Overbaugh J, Mwatha A, Ndinya-Achola J, Bwayo J, Onyango FE, Hughes J, Kreiss J: Effect of breastfeeding and formula feeding on transmission of HIV-1: A randomized clinical trial. *JAMA*, 283:1167-1174, 2000.
20. John GC, Rousseau C, Dong T, Rowland-Jones S, Nduati R, Mbori-Ngacha D, Rostron T, Kreiss JK, **Richardson BA**, Overbaugh J: Maternal SDF1 3'A polymorphism is associated with increased perinatal human immunodeficiency virus type 1 transmission. *J Virol*, 74:5736-5739, 2000. PMID: PMC112064.
21. Emery S, Bodrug S, **Richardson BA**, Giachetti C, Bott MA, Panteleeff D, Jagodzinski LL, Michael NL, Nduati R, Bwayo J, Kreiss JK, Overbaugh J: Evaluation of the performance of the Gen-Probe Human Immunodeficiency Virus Type 1 Viral Load Assay using primary subtype A, C, and D isolates from Kenya. *J Clin Microbiol*, 38:2688-2695, 2000. PMID: PMC87000.
22. **Richardson BA**, Hughes JP: Product limit estimation for infectious disease data when the test for the outcome is measured with uncertainty. *Biostatistics*, 1:341-354, 2000.
23. Baeten JM\*\*, **Richardson BA**, Martin HL, Nyange PM, Lavreys L, Ngugi EN, Mandaliya K, Ndinya-Achola JO, Bwayo JJ, Kreiss JK: Trends in HIV-1 incidence in a cohort of prostitutes in Kenya: Implications for HIV-1 vaccine efficacy trials. *J Acquir Immune Defic Syndr*, 24:458-464, 2000. \*\*Paper written by student as an independent study project mentored by Dr. Richardson.
24. Hughes JP, **Richardson BA**: Analysis of a randomized trial to prevent vertical transmission of HIV-1. *JASA*, 95:1032-1043, 2000.
25. John GC, Nduati RW, Mbori-Ngacha DA, **Richardson BA**, Panteleeff D, Mwatha A, Overbaugh J, Bwayo J, Ndinya-Achola JO, Kreiss JK: Correlates of mother-to-child human immunodeficiency virus type 1 (HIV-1) transmission: Association with maternal plasma HIV-1 RNA load, genital HIV-1 DNA shedding, and breast infections. *J Infect Dis*, 183:206-212, 2001.

26. John GC<sup>†</sup> and **Richardson BA**<sup>†</sup>, Nduati RW, Mbori-Ngacha D, Kreiss JK: Timing of breast milk HIV-1 transmission: A meta-analysis. *E Afr Med J*, 78:21-25, 2001. <sup>†</sup>Co-first authorship: both authors contributed equally to this work.
27. Nduati R, **Richardson BA**, John G, Mbori-Ngacha D, Mwatha T, Ndinya-Achola J, Bwayo J, Onyango FE, Kreiss J: Effect of Breastfeeding on mortality among HIV-1 infected women: A randomised clinical trial. *Lancet*, 357:1651-1655, 2001. PMID: PMC3372408.
28. John GC, Bird T, Overbaugh J, Nduati R, Mbori-Ngacha D, Rostron T, Dong T, Kostrikis L, **Richardson B**, Rowland-Jones SL: CCR5 promoter polymorphisms in a Kenyan perinatal HIV-1 cohort: association with increased 2-year maternal mortality. *J Infect Dis*, 184:89-92, 2001. PMID: PMC3366112.
29. **Richardson BA**, Lavreys L, Martin HL, Stevens CE, Ngugi E, Mandaliya K, Bwayo J, Ndinya-Achola J, Kreiss JK: Evaluation of a low dose Nonoxynol-9 gel for the prevention of sexually transmitted diseases: A randomized clinical trial. *Sex Transm Dis*, 28:394-400, 2001.
30. Baeten JM\*\*, Nyange PM, **Richardson BA**, Lavreys L, Chohan B, Martin HL, Mandaliya K, Ndinya-Achola JO, Bwayo JJ, Kreiss JK: Hormonal contraception and risk of sexually transmitted disease acquisition: Results from a prospective study. *Am J Obstet Gynecol*, 185:380-385, 2001. \*\*Paper written by student as an independent study project mentored by Dr. Richardson.
31. Mbori-Ngacha D, Nduati R, John G, Reilly M, **Richardson B**, Mwatha A, Ndinya-Achola J, Bwayo J, Kreiss J: Morbidity and mortality in breastfed and formula fed infants of HIV-1 infected women: Results of a randomized clinical trial. *JAMA*, 286:2413-2420, 2001. PMID: PMC3358136.
32. The Ghent Group (in alphabetical order): Alioum A, Dabis F, Dequae-Merchadou L, Haverkamp G, Hudgens M, Hughes J, Karon J, Leroy V, Newell M, **Richardson B**, Weverling G: Estimating the efficacy of interventions to prevent mother-to-child transmission of HIV in breast-feeding populations: development of a consensus methodology. *Stat Med*, 20: 3539-3556, 2001
33. **Richardson BA**: Editorial: Nonoxynol-9 as a vaginal microbicide for prevention of sexually transmitted infections: It's time to move on. *JAMA*, 287: 1171-1172, 2002.
34. Baeten JM, McClelland RS, Overbaugh J, **Richardson BA**, Emery S, Lavreys L, Mandaliya K, Bankson DD, Ndinya-Achola JO, Bwayo JJ, Kreiss JK: Vitamin A supplementation and HIV-1 shedding in women: results of a randomized clinical trial. *J Infect Dis*, 185: 1187-1191, 2002.
35. McClelland RS, Wang CC, **Richardson BA**, Corey L, Ashley R, Mandaliya K, Ndinya-Achola J, Bwayo JJ, Kreiss JK: A prospective study of hormonal contraceptive use and cervical shedding of Herpes Simplex Virus in HIV-1 seropositive women. *J Infect Dis*, 185, 1822-1825, 2002.
36. Lavreys L, Baeten JM, Overbaugh J, Panteleeff DD, Chohan B, **Richardson B**, Mandaliya K, Ndinya-Achola J, Kreiss JK: Virus load during primary Human Immunodeficiency Virus (HIV) type 1 infection is related to the severity of acute HIV illness in Kenyan women. *Clin Infect Dis*, 35, 77-81, 2002.
37. Baeten JM, Chohan BH, Lavreys L, Rakwar JP, Ashley R, **Richardson BA**, Mandaliya K, Bwayo JJ, Kreiss JK: Correlates of Human Herpesvirus 8 seropositivity among heterosexual men in Kenya. *AIDS*, 16, 2073-2078, 2002.
38. Baeten JM, McClelland RS, **Richardson BA**, Bankson DD, Lavreys L, Wener MH, Overbaugh J, Mandaliya K, Ndinya-Achola JO, Bwayo JJ, Kreiss JK: Vitamin A deficiency and the acute phase response among HIV-1 infected and uninfected women in Kenya. *J Acquir Immune Defic Syndr*, 31, 243-249, 2002.

39. Farquhar C, VanCott T, Mbori-Ngacha D, Horani L, Bosire R, Kreiss J, **Richardson B**, John-Stewart GC: Salivary secretory leukocyte protease inhibitor (SLPI) is associated with reduced transmission of human immunodeficiency virus type 1 through breast milk. *J Infect Dis*, 186, 1173-1176, 2002. PMID: PMC3382060.
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51. The Ghent Group (in alphabetical order): Alioum A, Dabis F (chairman), Dequae-Merchadou L, Haverkamp G, Hudgens M, Hughes J, Karon J, Leroy V, Newell ML, **Richardson B**, Weverling GJ: Estimating the efficacy of interventions to prevent mother-to-child transmission of HIV in breast-feeding populations. *Am J Epidemiol*, 158, 596-605, 2003.

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53. Meier AS\*, **Richardson BA**, Hughes JP: Discrete proportional hazards models for uncertain outcomes. *Biometrics*, 59, 947-954, 2003. \*Dissertation work under Dr. Richardson's supervision.
54. Mayer KH, Karim SA, Kelly C, Maslankowski L, Rees H, Profy AT, Day J, Welch J, Rosenberg Z, for the HIV Prevention Trials Network (HPTN) 020 Protocol Team: Safety and tolerability of vaginal PRO 2000 gel in sexually active HIV-uninfected and abstinent HIV-infected women. *AIDS*, 17, 321-329, 2003.
55. Kiarie JN, **Richardson BA**, Mbori-Ngacha D, Nduati RW, John-Stewart GC: Infant feeding practices of women in a perinatal HIV-1 prevention study in Nairobi, Kenya. *J Acquir Immune Defic Syndr*, 35, 75-81, 2004. PMID: PMC3380107.
56. Lavreys L, Baeten JM, Kreiss JK, **Richardson BA**, Chohan BH, Hassan W, Panteleeff DD, Mandaliya K, Ndinya-Achola JO, Overbaugh J: Injectable contraceptive use and genital ulcer disease during the early phase of human immunodeficiency virus (HIV) type 1 infection increase plasma virus load in women. *J Infect Dis*, 189, 303-311, 2004.
57. Baeten JM, **Richardson BA**, Bankson DD, Wener MH, Kreiss JK, Lavreys L, Mandaliya K, Bwayo JJ, McClelland RS: Use of serum retinol binding protein for prediction of Vitamin A deficiency: Effects of HIV-1 infection, protein malnutrition, and the acute phase response. *Am J Clin Nutr*, 79, 218-225, 2004.
58. Sagar M, Lavreys L, Baeten JM, **Richardson BA**, Mandaliya K, Ndinya-Achola JO, Kreiss JK, Overbaugh J: Identification of modifiable factors that affect the genetic diversity of the transmitted HIV-1 population. *AIDS*, 18, 615-619, 2004.
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60. Chohan BH, Taylor H, Obrigewitch R, Lavreys L, **Richardson BA**, Mandaliya KN, Bwayo JJ, Kreiss JK, Morrow RA: Human Herpesvirus 8 seroconversion in Kenyan women by enzyme-linked immunosorbent assay and immunofluorescence assay. *J Clin Virol*, 30, 137-144, 2004.
61. Mossman SP, Pierce CC, Watson AJ, Robertson MN, Montefiori DC, Kuller L, **Richardson BA**, Bradshaw JD, Munn RJ, Hu SL, Greenberg PD, Benveniste RE, Haigwood NL: Protective immunity to SIV challenge elicited by vaccination of macaques with multigenic DNA vaccines producing virus-like particles. *AIDS Res Hum Retroviruses*, 20, 425-434, 2004.
62. The Breastfeeding and HIV International Transmission Study (BHITS) Group. Late postnatal transmission of HIV-1 through breastfeeding: An individual patient data meta-analysis. *J Infect Dis*, 189, 2154-2166, 2004.
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66. Taylor MM, Chohan B, Lavreys L, Hassan W, Huang ML, Corey L, Morrow RA, **Richardson BA**, Mandaliya K, Ndinya-Achola J, Bwayo J, Kreiss J: Shedding of Human Herpesvirus-8 in oral and genital secretions from HIV-1-seropositive and -seronegative Kenyan women. *J Infect Dis* 190, 484-488, 2004.
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236. Othieno C, Babigumira JB, **Richardson B**: Are women with complications of an incomplete abortion more likely to be HIV infected than women without complications? *BMC Womens Health*, 15: 95, 2015. PMID: PMC4624175.

237. Milligan C, **Richardson BA**, John-Stewart G, Nduati R, Overbaugh J: FCGR2A and FCGR3A genotypes in human immunodeficiency virus mother-to-child transmission. *Open Forum Infect Dis*, 2:ofv149, 2015. PMID: PMC4653957.
238. McClelland RS, **Richardson BA**, Cherutich P, Mandaliya K, John-Stewart G, Miregwa B, Odem-Davis K, Jaoko W, Kimanga D, Overbaugh J: A 15-year study of the impact of community antiretroviral therapy coverage on HIV incidence in Kenyan female sex workers. *AIDS*, 29: 2279-2286, 2015. PMID: PMC4640974.
239. LaCourse SM, Cranmer LM, Matemo D, Kinuthia J, **Richardson BA**, John-Stewart G, Horne DJ: Tuberculosis case finding in HIV-infected pregnant women in Kenya reveals poor performance of symptom screening and rapid diagnostic tests. *J Acquir Immune Defic Syndr*, 71: 219-227, 2016. PMID: PMC4712112.
240. Dai JY, Hendrix CW, **Richardson BA**, Kelly C, Marzinke M, Chirenje ZM, Marrazzo JM, Brown ER: Pharmacological measures of treatment adherence and risk of HIV infection in the VOICE study. *J Infect Dis*, 213: 335-342, 2016. PMID: PMC4704663.
241. Milligan C, Omenda M, Chohan V, Odem-Davis K, **Richardson B**, Nduati R, Overbaugh J: Maternal neutralization-resistant virus variants do not predict infant HIV infection risk. *mBio*, 7: e02221-15, 2016. PMID: PMC4742716.
242. Polyak CS, Yuhas K, Singa B, Khaemba M, Walson J, **Richardson BA**, John-Stewart G: Cotrimoxazole prophylaxis discontinuation among antiretroviral-treated HIV-1-infected adults in Kenya: a randomized non-inferiority trial. *PLoS Med*, 13: e1001934, 2016. PMID: PMC4701407.
243. **Richardson BA**, John-Stewart G, Atkinson C, Nduati R, Asbjornsdottir K, Boeckh M, Overbaugh J, Emery V, Slyker JA: Vertical cytomegalovirus transmission from HIV-infected women randomized to formula-feed or breastfeed their infants. *J Infect Dis*, 213: 992-998, 2016. PMID: PMC4760415.
244. Pavlinac PB, Lokken EM, Walson JL, **Richardson BA**, Crump JA, John-Stewart GC: Mycobacterium tuberculosis bacteremia in adults and children: a systematic review and meta-analysis. *Int J Tuberc Lung Dis*, 20: 895-902, 2016.
245. Balkus JE, Brown E, Palanee T, Nair G, Gafoor Z, Zhang J, **Richardson BA**, Chirenje ZM, Marrazzo JM, Baeten JM: An empiric HIV risk scoring tool to predict HIV-1 acquisition in African women. *J Acquir Immune Defic Syndr*, 72: 333-343, 2016. PMID: PMC4911322.

### In Press

1. Graham SM, Meier CA, **Richardson BA**, Masese L, Gitau R, Peshu N, Jaoko W, Estambale BB, Overbaugh J, McClelland RS: Relationship between plasma and female genital HIV-1 RNA concentrations before and after initiation of antiretroviral therapy. *J Acquir Immune Defic Syndr*.
2. Chung MH, McKenzie KP, De Vuyst H, **Richardson BA**, Rana F, Pamnani R, Njoroge JW, Nyongesa-Malava E, Sakr SR, John-Stewart GC, Mugo NR: Comparing Pap Smear, VIA, and HPV cervical cancer screening methods among HIV-positive women by immune status and antiretroviral therapy. *AIDS*.
3. Onchiri FM, Pavlinac PB, Singa BO, Naulikha JM, Odundo EA, Farquhar C, **Richardson BA**, John-Stewart G, Walson JL: Low bacteremia prevalence among febrile children in areas of differing malaria transmission in rural Kenya: A prospective cross-sectional study. *J Ped Infect Dis*.

4. Osoti AO, John-Stewart G, Kiarie JN, **Richardson B**, Kinuthia J, Krakowiak D, Farquhar C: Home-based HIV testing for men preferred over clinic-based testing by pregnant women and their male partners, a nested cross-sectional study. *BMC Infect Dis*.
5. McClelland RS, **Richardson BA**, Cherutich P, Mandaliya K, John-Stewart G, Miregwa B, Odem-Davis K, Jaoko W, Kimanga D, Overbaugh J: Impact of community antiretroviral therapy coverage on HIV incidence in Kenyan female sex workers: a 15-year prospective cohort study. *AIDS*.
6. Pavlinac PB, Lokken EM, Walson JL, **Richardson BA**, Crump JA, John-Stewart GC: Mycobacterium tuberculosis bacteremia in adults and children: A systematic review and meta-analysis. *Int J Tuberc Lung Dis*.
7. Baeten JM, Palanee-Phillips T, Brown ER, Schwartz K, Soto-Torres LE, Govender V, Mgodini NM, Kiweewa FM, Nair G, Mhlanga F, Siva S, Bekker LG, Jeena N, Gaffoor Z, Martinson F, Maman B, Pather A, Naidoo L, Husnik M, **Richardson BA**, Parikh UM, Mellors JW, Markin MA, Hendrix CW, van der Straten A, Ramjee G, Chirenje ZM, Nakabiito C, Taha TE, Jones J, Mayo A, Schechter R, Berthiaume J, Livant E, Jacobson C, Ndase P, White R, Patterson K, Germuga D, Galaska B, Bunge K, Singh D, Szydlowski DW, Montgomery ET, Mensch BS, Torjesen K, Grossman CI, Chakhtoura N, Nel A, Rosenberg Z, McGowan I, Hillier S, for the MTN-020/ASPIRE Study Team: Use of a Vaginal Ring Containing Dapivirine for HIV-1 Prevention in Women. *NEJM*.
8. Wilson KS, Wanje G, Yugas K, Simoni J, Masese L, Vander Stoep A, Jaoko W, Hughes JP, **Richardson BA**, McClelland RS: A prospective cohort study of intimate partner violence as a risk factor for detectable plasma viral load in HIV-positive women engaged in transactional sex in Mombasa, Kenya. *AIDS Behav*.
9. Wilson KS, Deya R, Yugas K, Simoni J, Vander Stoep A, Shafi J, Jaoko W, Hughes JP, **Richardson BA**, McClelland RS: A prospective cohort study of intimate partner violence and unprotected sex in HIV-positive female sex workers in Mombasa, Kenya. *AIDS Behav*.
10. Wamalwa D, Benki-Nugent S, Langat A, Tapia K, Ngugi E, Moraa H, Maleche-Obimbo E, Otieno V, Inwani I, **Richardson BA**, Chohan B, Overbaugh J, John-Stewart GC: Treatment interruption after 2-year antiretroviral treatment (ART) initiated during acute/early HIV in infancy: A randomized trial. *AIDS*.

## Papers Submitted to Refereed Journals

### b) Other Refereed Scholarly Publications

#### Letters in Refereed Journals

1. Nduati R, Mbori-Ngacha D, John G, **Richardson B**, Kreiss J: Breastfeeding in women with HIV (response to letters regarding Nduati, *et al*, *JAMA*, 283:1167-1174, 2000). *JAMA*, 284:956-957, 2000.
2. Nduati R, **Richardson BA**, John G, Mbori-Ngacha D, Kreiss J: Breastfeeding in HIV-1-positive mothers (response to letters regarding Nduati *et al*, *Lancet*, 357:1651-1655, 2001). *Lancet*, 358:1095-1096, 2001.
3. Mbori-Ngacha D, Nduati R, John-Stewart G, **Richardson B**, Kreiss J: Breastfeeding vs formula-feeding among HIV-infected women in resource-poor areas (response to letters regarding Mbori-Ngacha, *et al*, *JAMA*, 286:2413-2420, 2001). *JAMA*, 287: 1110-1113, 2002.
4. Fleming TR, **Richardson BA**: Reply to Skoler *et al*. and to Stein and Susser (response to letters regarding Fleming and Richardson, *J Infect Dis*, 190, 666-674, 2004). *J Infect Dis*, 191: 1379-1380, 2005.



5. Baeten JM, **Richardson BA**, Lavreys L, Rakwar JP, Mandaliya K, Bwayo JJ, Kreiss JK: Reply to Poterrat (response to letter regarding Baeten, et al, *J Infect Dis*, 191, 546-553, 2005). *J Infect Dis*, 191: 2155-2156, 2005.
6. Otieno PA, Brown ER, **Richardson BA**, John-Stewart G: Reply to Kuhn et al (response to letter regarding Otieno et al, *J Infect Dis*, 195, 220-229, 2007). *J Infect Dis*, 195, 1729-1730, 2007.
7. Walson JL, **Richardson BA**, John-Stewart G: Response to ‘Which helminth coinfections really affect HIV disease progression?’. *AIDS*, 23, 277-278, 2009.
8. Harrison P, Mellors JW, **Richardson B**, Masse BR, Karim QA, Karim SA, *et al* : Challenges in HIV-prevention microbicide research, E-letter response to ‘Whither or wither microbicides ?’. *Science* <http://www.sciencemag.org/cgi/eletters/321/5888/532#11839>, 2009.
9. McCormack S, Taylor D, **Richardson B**, Darbyshire J, Sattentau Q, Karim Q, Karim S, Kharsany A, Lacey C, Nunn A, Weber J: Letter regarding Tao W, Richards C, Hamer D, *AIDS Res Hum Retrovirus*, 24:1-5, 2008. *AIDS Res Hum Retrovirus*, 25, 373, 2009.
10. Noguchi LM, **Richardson BA**, Balkus JE, Marrazzo JM: Interpretation, communication, and mechanisms of associations between injectable contraception and HIV risk - Authors’ reply. *Lancet HIV*, 2, e366-e367, 2015.

### c) Books and book chapters

1. Sorenson SB, Peterson JG, **Richardson BA**: Child homicide in the city of Los Angeles: an epidemiological examination of a decade of deaths. In: ”Violence and Sexual Abuse at Home: Current Issues in Spousal Battering and Child Maltreatment”. (Geffner R, Sorenson SB, Lundberg-Love P, eds.). Binghamton, New York: Haworth Press, 1997.

### d) Other Published Scholarly Papers (proceedings, policy papers and reviews, book chapters, etc.)

1. **Richardson, B**: The analysis of incomplete data in the three-period two-treatment crossover design for clinical trials. Ph.D. Thesis, Department of Biostatistics, University of California, Los Angeles, 1993.
2. Hughes JP, **Richardson, BA**: Estimation of the joint distribution of infection time and death time for vertical transmission of HIV-1. University of Washington, Department of Biostatistics, Technical Report No. 162, 1999.
3. **Richardson, BA**, Hughes JP: Modeling breastmilk infectivity in HIV-1 infected mothers. University of Washington, Department of Biostatistics, Technical Report No. 180, 2002.
4. **Richardson, BA**: Nonoxynol-9 vaginal gel increased the risk of HIV-1 infection in female sex workers (invited commentary). *Evidence-Based Obstetrics and Gynecology*, 5, 22-23, 2003.
5. John-Stewart GC, Jonnalagadda S, **Richardson BA**: Exclusive breastfeeding and HIV-1 transmission. *Future HIV Ther*, 1, 157-160, 2007.

### 8. Patents and other intellectual property

None indicated

## 9. Funding History

### a) Funded Projects

#### Grants and Contracts as Principal Investigator

1. University of Washington Royalty Research Fund Grant: Survival Distribution Estimates when Test Sensitivity and Specificity for Outcome are Less Than 100%. Principal Investigator, 3/1/98 to 2/28/99, \$14,054.
2. National Institute of Child Health and Development: Hormonal Contraception and Risk of HIV Acquisition and Effect of Hormonal Contraception on HIV Genital Shedding Among Women with Primary HIV Infection (Statistical Coordinating Center). Principal Investigator, 9/30/00 to 9/30/07, \$3,018,988.
3. The Global Health Program of the Bill & Melinda Gates Foundation, Puget Sound Partners for Global Health Research & Technology: HSV-2 Suppression to Reduce Maternal HIV-1 RNA Levels During Pregnancy & Breastfeeding: A Randomized Clinical Trial. Principal Investigator, 7/1/2007-7/1/2009, \$75,000.
4. National Institute of Allergy and Infectious Diseases: Clinical Research on AIDS Training Grant. Principal Investigator, 9/1/2009-2013, \$93,983.
5. National Institute of Allergy and Infectious Diseases: Leadership for HIV/AIDS Clinical Trials Networks – Microbicide Trials Network (Statistical Coordinating Center). Co-principal Investigator, 3/1/06-6/30/10; Principal Investigator 7/1/10-6/30/11; Co-principal Investigator 7/1/11-2/28/13, Principal Investigator of UW subcontract 3/1/06-11/30/20 \$28,572,164 (\$1,443,712 UW Biostatistics subcontract).
6. United States Agency for International Development: ARV Resistance. Principal Investigator for UW subcontract, 7/20/2015-7/20/2020, \$13,087.

### b) Pending Applications

#### Grants and Contracts as Principal Investigator

## 10. Public Health Practice Activities

None indicated

## 11. Conferences and Symposiums

### Invited Talks

Stanley Gershoff Symposium, Tufts University, Boston MA, 2001  
 ENAR Biometrics Society Meeting, Washington DC, 2002  
 Joint Statistical Meetings, San Francisco CA, 2003  
 International Society for Sexually Transmitted Diseases Research, Amsterdam, Netherlands, 2005  
 UW Center for AIDS and STD Research Symposium on Women and HIV, Seattle, 2005  
 ENAR Biometrics Society Meeting, Tampa FL, 2006  
 Joint Statistical Meetings, Seattle WA, 2006  
 HIV Vaccine Trials Network Investigators Meeting, Seattle WA, 2006  
 Adherence and Its Measurement in Clinical Trials, Washington DC, 2007  
 Advances and Challenges in STI Microbicide Research STI CRC Workshop, Panel Discussant, Chapel Hill NC, 2008

Microbicide Trials Network Annual Investigators Meeting, Arlington VA, 2009

World Health Organization Consultation: Access to PRO 2000, London, England, 2009

Best Practices for Phase I Assessment of Microbicide Safety, Washington DC, 2009

NIAID Workshop on Humoral Responses in HIV Superinfection: Implications for HIV Vaccine Design Meeting, Bethesda, MD, 2015

The Use of Mucosal Assays in Microbicide Trials, Arlington VA, 2015

## 12. University Service

### Biostatistics Committee/Service

Student Relations Committee, 1996-2003

Journal Club Committee, 1998-1999

Ph.D. Applied Exam Grader, 1996, 1997, 1999-2004, 2006-2009

Faculty Mentoring Committee, 2000

Faculty Search Committee, 2003-2005

M.S. Theory Exam Committee, 2005

Informal Seminar Series Co-Chair, 2005

Endowments and Awards Committee, 2006

Member, Admissions Committee, 2006-present

Co-Chair, Admissions Committee, 2011-2012

Chair, Admissions Committee, 2012-present

Promotion Committees, 2012-2014

### University Service

Member, Biostatistics Core Advisory Committee, Center for AIDS Research, University of Washington, 1998-present

Director, Biostatistics Track, Fogarty International AIDS Research and Training Program, University of Washington, 2003-present

Faculty Senate, 2006-2007

Member, Search Committee for Clinical Epidemiologist, Department of Global Health, 2007-2008

Member, Search Committee for 2 Infectious Disease Clinical Epidemiologists, Department of Global Health, 2008-2009

## 13. Professionally-Related Community Service

Member, Board of Directors, First Hill Child Learning Center, Seattle, WA, 1997-1999

Member, Annual Giving Committee, The Meridian School, Seattle, WA, 2005-2010

Member, Committee on Trustees, The Meridian School, Seattle, WA, 2007-2008, 2011

Member, Finance Committee, The Meridian School, Seattle, WA, 2007-2014

Member, Board of Trustees, The Meridian School, Seattle, WA, 2007-present

Chair, Development Committee, The Meridian School, Seattle, WA 2008-2009

Vice Chair of Board of Trustees, The Meridian School, Seattle, WA, 2009-2010

Treasurer, Board of Trustees, The Meridian School, Seattle, WA, 2012-2013

Member, Marketing Committee, The Meridian School, Seattle, WA, 2014-present

Member, Development Committee, The Bush School, Seattle, WA, 2013-present

Member, Board of Trustees, The Bush School, Seattle, WA, 2014-present

Member, A&A Committee, The Bush School, Seattle, WA, 2015-present

Chair, A&A Committee, The Bush School, Seattle, WA, 2016-present

Member, Mercer Island Youth and Family Services Foundation Board, 2016-present

## 14. Other Pertinent Information As Needed

### Research Interests

Statistical methods for incomplete data, statistical methodology for clinical trials data; longitudinal data analysis; statistical methods for AIDS and STD data.

## 15. Teaching History

### a) Formal Teaching

Biostatistics 580A (Seminar), Spring 2002

Biostatistics 590A (Consulting), Summer 2004

Biostatistics 580C (Informal Seminar), Fall 2005, Winter 2006, Spring 2006

### b) Other Teaching

Instructor, Principles of STD and HIV Research, The Center for AIDS and STD, University of Washington, 1999-2009

Instructor, Responsible Conduct of Research, International AIDS Research and Training Program, University of Washington, 2003-present

Lecturer, Biostatistics 111 (Lectures in Applied Statistics), 2001, 2005-2007

Lecturer, Nursing 587 (Role Transition Seminar), 2005

Lecturer, Nursing Methods 515/Epidemiology 549 (Sociobehavioral and Prevention Research Methods in HIV & STIs), 2006

Lecturer, Global Health 564/Epidemiology 507/ObGyn 590 (HIV and STIs in Women and Children), 2007-2010, 2012-2013

Lecturer, University of Nairobi Institute of Tropical and Infectious Disease Fellowship, 2010

### c) Independent Study

Susan Ewing, Spring 1998

Li Wang, Spring & Fall 1998, Winter & Spring 1999

Maureen Reiner, Spring & Fall 1998, Winter, Spring & Fall 1999, Spring & Summer 2000

Caroline Jiang, Spring 2000

Darcy Jennings, Winter 2003

James Ochieng, Spring 2003

Frankline Onchiri, Winter 2005, Academic year 2006-2007

Jessie Wen Gu, Fall 2006

Betsy Teeple, Academic year 2006-2007

Katie Davis, Fall 2006

Brett Hanscomb, Winter 2010, Spring 2010

## 16. Advising and Formal Mentoring

### a) PhD Dissertations, chair

Amalia Meier, 2001

### b) Master's Thesis, chair

Susan Ewing, 1999

Maureen Reiner, 2002

James Ochieng Okuma, 2004

Frankline Onchiri, 2007

Rachel Debes, 2011

Xiaochen Dai (MPH), current

### c) Mentored Scientists and Postdocs

Katie Odem-Davis, 2010-2013

**d) Thesis/Dissertation committees in non-chair role**MS/MPH Committee Member

Ann Yunker (Biostat), 2000  
James Kiarie (Epi), 2001  
Isaac Malonza (Epi), 2001  
Scott McClelland (Epi), 2001  
Carey Farquhar (Epi), 2001  
Nadia Howlader (Biostat), 2002  
Melanie Taylor (Epi), 2002  
Elizabeth Obimbo (Epi), 2002  
Phelgona Otieno (Epi), 2002  
San-San Ou (Biostat), 2003  
Rich Jensen (Biostat), 2005  
Romel Mackelprang (Epi), 2006  
Natasha Close (Epi), 2007  
Linnet Masese (Epi), 2008  
Rob Wellman (Biostat), 2008  
David Katz (Epi), 2008  
John Kinuthia (Epi), 2009  
Lee Pyne-Mercier (Epi), 2009  
Henry Fischer (Health Services), 2010  
Timothy Thomas (Epi EDP), current  
Agnes Langat, (Epi), 2011  
Alfred Osoi (Epi), 2013  
Carolyn Othieno (Global Health), 2014  
Marielle Goyette (Epi), 2015  
Ethan Wilson (Biostat), 2016  
Mckenna C. Eastment (Epi), current  
Tessa Carlson (Epi), 2016  
Sarah Masyuko (Global Health), current  
Minnie Kibore (Epi), current

Ph.D. Committee Member

Sara Mostad (Epi), 1997  
Shuguang Song (Stat), 2001  
Elizabeth Bukusi (Epi), 2006  
Bhavna Chohan (Pathobio), 2007  
Brandon Guthrie (Epi), 2009  
Catherine Wetmore (Epi), 2009  
Richard Jensen (Epi), 2009  
Laura Sangare (Epi), 2010  
Katie Davis (Biostat), 2010  
Romel Mackelprang (Epi), 2010  
Alison Drake (Epi), 2010  
Jennifer Balkus (Epi), 2012  
Christine McGrath (Epi), 2011  
Amy Liu (Epi), 2012  
Anna Coghill (Epi), 2012  
Betsy Teeple (Biostat), 2013  
Tanya Granston (Biostat), 2013  
Renee Heffron (Epi), 2012  
Kristin Beima-Sofie (IPHG), 2013  
Helen Gerns (Epi), 2013  
Amy Laird (Biostat), 2013

Linnet Masese (Epi), 2014  
Patricia Pavlinach (Epi), 2014  
Frankline Onchiri (Epi), 2014  
Caitlin Milligan (Pathobio), 2015  
Andrew Mujugira (Epi), 2016  
Jennifer Mark (Epi), current  
Mike Arndt (Epi), 2016  
Marla Husnik (Epi), current  
Sharon Greene (Epi), current  
Natasha Close (Epi), current  
Marielle Goyette (Epi), current  
Xiaochen Dai (Global Health), current

**e) Other Mentoring**

**Research Assistants – Supervision and Funding**

Biostatistics students

Maureen Reiner, Summer 1998 – Summer 2000 (50% time supervision and funded)  
Li Wang, Summer 1998 – Spring 1999 (25% time supervision and funded)  
Amalia Meier, Spring 2000 - Fall 2001 (25% time supervision and funded)  
Peggy Chrisman, Summer 2006-Spring 2007 (50% time supervision and funded)  
Betsy Teeple, Summer 2007-Winter 2009 (25% time supervision and funded)

Students from other departments

Jared Baeten (Epidemiology, MD/PhD), Summer 1997 – Summer 1998 (50% time supervision)  
Matthew Steele (Epidemiology), Fall 2000-Winter 2002 (50% time supervision)  
Mary Redman, Spring 2002-Fall 2003 (50% time supervision and funded)  
Katrina Moore (Epidemiology), Fall 2003 – Spring 2004 (50% time supervision)

**FHCRC Dual Mentoring Program**

Dara Lehman (Molecular and Cellular Biology, PhD student), co-mentor with Dr. Julie Overbaugh, 2004-2008  
Leslie Goo (Pathobiology, PhD student), co-mentor with Dr. Julie Overbaugh, 2011-2013  
Keshet Ronen (postdoctoral fellow), co-mentor with Dr. Julie Overbaugh, 2013-2014

**f) Academic advising**

Susan Ewing, 1997-1999  
Li Wang, 1997-1999  
James Ochieng Okuma, 2002-2004  
Rob Wellman, 2004-2010  
Frankline Onchiri, 2005-2007  
Erin Gabriel, 2007-2012  
Laura Yee, 2008-2012  
Leigh Fisher, 2010-2013  
Scott Coggeshall, 2011-2014  
Fedelis Mutiso, 2013-2015