

**CURRICULUM VITAE**  
***PATRICK M. TARWATER***

**PERSONAL DATA**

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Johns Hopkins University  
**Bloomberg School of Public Health**  
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**EDUCATION AND TRAINING**

Ph.D. 1999 Biometry (Minors: Epidemiology, Environmental Health)  
The University of Texas Health Science Center, Houston, Texas  
M.S. 1992 Mathematics (Concentration: Statistics)  
Texas Tech University, Lubbock, Texas  
B.A. 1990 Mathematics (Minor: Philosophy)  
Texas Tech University, Lubbock, Texas

**PROFESSIONAL EXPERIENCE**

2019-present **Senior Scientist**  
*Department of Epidemiology*  
*Department of Biostatistics (Joint)*  
Bloomberg School of Public Health  
and  
*Department of Molecular and Comparative Pathobiology (Joint)*  
School of Medicine  
Johns Hopkins University, Baltimore, MD

2013-2020 **Adjunct Professor**  
*Department of Infectious Disease and Microbiology*  
Graduate School of Public Health  
The University of Pittsburgh, Pittsburgh, PA

2003-2019 **Adjunct Professor**  
*Department of Biostatistics*  
Bloomberg School of Public Health  
The Johns Hopkins University, Baltimore, MD

2016-2019 **Associate Professor**  
*Department of Biostatistics*  
School of Public Health

- The University of Texas Health Science Center at Houston  
El Paso Regional Campus, El Paso, TX
- 2009-2016 **Professor**  
*Division of Biostatistics and Epidemiology*  
Department of Biomedical Sciences  
Paul L. Foster School of Medicine  
The Texas Tech University Health Sciences Center, El Paso, TX
- 2008-2009 **Associate Professor of Biostatistics**  
*Department of Biomedical Sciences*  
Paul L. Foster School of Medicine  
The Texas Tech University Health Sciences Center, El Paso, TX
- 2005-2008 **Associate Professor**  
*Division of Biostatistics (Division of Epidemiology, secondary appointment)*  
The University of Texas School of Public Health, Houston, TX
- 2002-2005 **Assistant Professor**  
*Division of Biostatistics (Division of Epidemiology, secondary appointment)*  
The University of Texas School of Public Health, Houston, TX
- 2000-2002 **Assistant Research Professor**  
*Department of Epidemiology*  
Bloomberg School of Public Health  
The Johns Hopkins University, Baltimore, MD
- 1999-2000 **Assistant Scientist**  
*Department of Epidemiology*  
Bloomberg School of Public Health  
The Johns Hopkins University, Baltimore, MD
- 1997-99 **Senior Statistical Software Engineer**  
*Computational Technologies Group*  
Visual Numerics, Inc., Houston, TX
- 1993-97 **Instructor**  
*Department of Mathematics*  
The University of St. Thomas, Houston, TX

## PROFESSIONAL ACTIVITIES

### *Society Membership:*

- 1993- American Statistical Association (ASA)  
1995- Statistics in Epidemiology Section of ASA  
1995- Teaching Statistics in the Health Sciences Section of ASA  
1995- Biometrics Section of ASA
- 1995-9 Houston Area Chapter American Statistical Association, Houston, TX.  
1997-9 Texas Area Statisticians Conference (TASC)  
1998 Member: Committee for Allocation of Funds for Student Rewards, TASC  
1986-95 Mathematical Association of America  
1990-8 Texas Section Mathematical Association of America

*Society Leadership and Service:*

- 2005 – 07 Program Chair (2007), Teaching Statistics in the Health Sciences Section, American Statistical Association (ASA)
- 2004 – 06 Liaison to Congress of Epidemiology 2006 Planning Committee
- 2003 – 07 Co-Editor and Website Manager, Statistics in Epidemiology Section, ASA
- 2003 – 06 Publications Officer, Statistics in Epidemiology Section, ASA
- 2003 Session Chair, Joint Statistical Meetings, Biometrics Section, ASA
- 1997 Session Chair, Joint Statistical Meetings, Biometrics Section, ASA

*Professional Leadership and Service:*

- 2005 - 2009 Biostatistics expert network, Ponce School of Medicine, Puerto Rico.

**EDITORIAL and EXTERNAL SERVICE ACTIVITIES***Reviewer:*

- Journal *AIDS*, 2000, 2001  
*AIDS Research and Therapy*, 2006  
*Advances and Applications in Statistics*, 2003  
*American Journal of Epidemiology*, 2001, 2002, 2003, 2005  
*Electronic Journal of Statistics*, 2010  
*Epidemiology*, 2001  
*International Journal of Epidemiology*, 2002  
*Journal of Acquired Immune Deficiency*, 2003, 2004, 2005  
*Journal of Infectious Diseases*, 2004  
*Journal of Statistical Computation and Simulation*, 2004  
*PLoS One*, 2012, 2013  
*Public Health*, 2012
- Academic *Florida International University*, Tenure/Promotion External Reviewer, 2006  
*University of Maryland*, Tenure/Promotion External Reviewer, 2006

*Editorial Board:*

- Primary Care Epidemiology and Global Health*, 2018

*Ad Hoc Review of Proposals:*

- Conference *International AIDS Conference*, 2002, 2004, 2006  
*International AIDS Society Conference 2007*
- Grant *NIH, NIAID*, AIDS Research Review Committee, 2006  
*AIDS Fonds, Netherlands*, 2002, 2004, 2005, 2009, 2013  
*NIH, NIAID, R24 Special Emphasis Panel*, 2004, 2005  
*NIH, NIAID, U01 Special Emphasis Panel*, 2005  
*National Medical Research Council, Singapore*, 2005, 2008

**HONORS AND AWARDS**

- 2003 Best Contributed Paper**, Joint Statistical Meetings, San Francisco, Teaching

- Statistics in the Health Sciences Section of the American Statistical Association
- 2004 Honors Convocation**, University of Texas Health Science Center (UTHSC), Houston, TX
- 2004 Delta Omega Honorary Society**, Alpha Iota Chapter, School of Public Health (SPH), UTHSC, Houston, TX
- 2005 Outstanding Young Investigator**, UTHSC, Houston, TX
- 2005 Honors Convocation**, UTHSC, Houston, TX
- 2005 Research Excellence Award**, SPH-UTHSC, Houston, TX
- 2005 Dean's Teaching Excellence Award**, SPH-UTHSC, Houston, TX
- 2006 Research Excellence Award**, SPH-UTHSC, Houston, TX
- 2006 Academic & Administrative Leadership Development Program**, UTHSC, Houston, TX
- 2006 Honors Convocation**, UTHSC, Houston, TX
- 2006 Visiting Professor**, Southwestern School of Medicine, Dallas, TX
- 2007 Research Excellence Award**, SPH-UTHSC, Houston, TX
- 2008 Dean's Teaching Excellence Award**, SPH-UTHSC, Houston, TX
- 2008 Research Excellence Award**, SPH-UTHSC, Houston, TX
- 2009 Professor-in-Residence (Uganda)**, Accordia Global Health Foundation
- 2009 Fellow**, American College of Epidemiology, Raleigh, NC
- 2010 Professor-in-Residence (Uganda)**, Accordia Global Health Foundation
- 2016 Fogarty Invited Lecturer (Hyderabad, India)**, LEPRASociety
- 2019 Excellence in Teaching Recognition**, Bloomberg School of Public Health

## PUBLICATIONS

### *Journal Articles (Peer-Reviewed):*

1. Detels R, **Tarwater PM**, Phair JP, Margolick J, Riddler SA, and Munoz A. Effectiveness of potent antiretroviral therapies on the incidence of opportunistic infections before and after AIDS diagnosis. *AIDS* 2001; 15:347-355.
2. **Tarwater PM**, Margolick J, Jin J, Phair J, Detels R, Rinaldo C, Giorgi J, and Muñoz A. Increase and plateau of CD4 T cell counts in the 3 ½ years following initiation of potent antiretroviral therapy. *J Acquir Immune Defic Syndr* 2001;27:168-75
3. Sacktor N, **Tarwater PM**, Skolasky MA, McArthur JC, Selnes A, Becker J, Cohen B, Miller EN. CSF antiretroviral drug penetrance and the treatment of HIV-associated psychomotor slowing. *Neurology* 2001; 57:542-5.
4. **Tarwater PM**, Mellors J, Gore ME, Margolick J, Phair J, Detels R, and Muñoz A. Methods to assess population effectiveness of therapies in HIV incident and prevalent cohorts. *Am J Epidemiol* 2001; 154:675-81.
5. Babas T, Vieler E, Hauer DA, Adams RJ, **Tarwater PM**, Fox KJ, Clements JE, and Zink MC. Pathogenesis of SIV pneumonia: selective replication of viral genotypes in the lung. *Virology* 2001; 2:371-81.
6. Zink MC, Coleman GD, Mankowski JL, Adams RJ, **Tarwater PM**, Fox KJ, Clements JE. Increased macrophage chemoattractant protein-1 in cerebrospinal fluid

- precedes and predicts the development of simian immunodeficiency virus encephalitis. *J Inf Dis* 2001; 184:1015-21.
7. Augenbraun M, **Tarwater PM**, Greenblatt R, Cohen M, Gore ME, Watts H, Preston-Martin S, and Anastos K. Opportunistic infection (OI) prophylaxis in the Women's Interagency HIV Study (WIHS). *J Acquir Immune Defic Syndr* 2001;28:195-6.
  8. **Tarwater PM**, and Martin CF. Effects of population density on the spread of disease. *Complexity* 2001; 6(6):29-36.
  9. Mankowski JL, Queen SE, **Tarwater PM**, Fox KJ, Perry VH, Clements JE. Axonal  $\beta$ -Amyloid Precursor Protein Accumulation in SIV-infected Macaques. *J Neuropathol Exp Neurol* 2002; 61(1):85-90.
  10. Clements JE, Babas T, Mankowski J, Suryanarayana K, Piatak MJ, **Tarwater PM**, Lifson JD, and Zink MC. CNS as a reservoir for SIV: stable levels of SIV DNA in the brain from acute through asymptomatic infection. *J Infect Dis* 2002; 186(7):905-13.
  11. Babas T, Muñoz D, Mankowski J, **Tarwater PM**, Clements JE, and Zink MC. Role of microglial cells in selective replication of Simian immunodeficiency virus genotypes in the brain. *J Virol* 2003; 77(1):208-216.
  12. Mankowski JL, Queen SE, **Tarwater PM**, Adams RJ, and Guilarte TR. Elevated peripheral benzodiazepine receptor expression in SIV encephalitis. *J Neurovirology* 2003; 9(1):94-100.
  13. Philpott S, Weiser B, **Tarwater PM**, Kleeberger C, Vermund S, Gange S, Anastos K, Cohen M, Greenblatt R, Kovacs A, Minkoff H, Young M, Miotti P, Dupuis M, Chen CH, Burger H. The association of CCR5 genotype with HIV-1 infection, disease progression and response to potent therapy in Women. *J Infect Dis* 2003; 187(4):569-575.
  14. Li X, Buechner JM, **Tarwater PM**, Muñoz A. A diamond-shaped, equiponderant graphical display of the effects of two categorical predictors on continuous outcomes. *Am Statistician* 2003; 57(3):193-199.
  15. Marx MA, Murugavel KG, **Tarwater PM**, SriKrishman AK, Thomas DL, Solomon S, and Celentano DD. Examination of the association between HCV and genital ulcers in a multi-level random sample of slum residents in southern India. *Clin Infect Dis* 2003; 37:514-520.
  16. Sacktor N, Skolasky RL, **Tarwater PM**, McArthur JC, Selnes OA, Becker J, Cohen B, and Miller EN. Response to systemic HIV viral load suppression correlates with psychomotor speed performance. *Neurology* 2003; 61(4):567-9.
  17. **Tarwater PM**, Parrish MA, and Gallant JE. Prolonged treatment interruption after immunologic response to HAART. *Clin Infect Dis* 2003; 37(11):1541-1548
  18. Barber SA, Bennet JM, DeWitt JB, **Tarwater PM**, Zink MC. Dysregulation of mitogen-activated protein kinase (MAPK) signaling pathways in SIV Encephalitis. *Am J Pathol* 2004; 164(2):355-62.
  19. Chatterjee R, **Tarwater P**, Neogi D, Ghosh A, Roy P, and Gupta P. Estimation of

- HIV seroprevalence in blood bank camps in Kolkata, India. *Transfus Med* 2004; 14(1):77-8.
20. Gibbs SG, Green CF, **Tarwater PM**, Scarpino PV. Airborne Antibiotic Resistant and Non-Resistant Bacteria and Fungi Recovered from Two Swine Herd Confined Animal Feeding Operations. *J Occupational and Environmental Hygiene* 2004; 1(11): 699-706.
  21. Philpott S, Burger H, **Tarwater PM**, Lu M, Gange SJ, Anastos K, Cohen M, Greenblatt RM, Kovacs A, Minkoff H, Young M, Miotti P, Dupuis M, Chen CH, Weiser B. CCR2 genotype and disease progression in HIV-1 infected women. *Clin Infect Dis* 2004; 39(6):861-5.
  22. **Tarwater PM**, Gallant JE, Mellors JW, Gore ME, Phair JP, Detels R, Margolick JB, and Munoz A. Prognostic value of plasma HIV RNA among highly active antiretroviral therapy users. *AIDS* 2004; 18:2419-2423.
  23. Rue SM, Roos JW, **Tarwater PM**, Clements JE, and Barber SA. Phosphorylation and proteolytic cleavage of Gag proteins in budded simian immunodeficiency virus. *J Virol* 2005; 79(4):2484-2492.
  24. Grant LA\*, **Tarwater PM\***, Schneider M, Anastos K, Cohen M., Khalsa A, Minkoff H, Young M, Greenblatt RM. Temporal Trends and Determinants of HAART Discontinuation in the Women's Interagency HIV Study. *J Acquir Immune Defic Syndr* 2005; 38(4):500-503. \*Authors contributed equally.
  25. Helke KL, Queen SE, **Tarwater PM**, Nath A, Zink MC, Irani DN, Mankowski JL. 14-3-3 protein in CSF: an early predictor of SIV CNS disease. *J Neuropathol Exp Neurol* 2005; 64(3):202-8.
  26. Zink MC, Uhrlaub JL, DeWitt JB, Voelker T, Bohlayer E, Mankowski JL, **Tarwater PM**, Clements JE, Barber SA. Minocycline suppresses replication of SIV and reduces the severity of encephalitis in SIV-infected macaques. *JAMA* 2005; 293(16):2003-2011.
  27. Carruth LM, Christine Zink M, **Tarwater PM**, Miller MD, Li M, Queen LA, Mankowski JL, Shen A, Siliciano RF, Clements JE. SIV-specific T lymphocyte responses in PBMC and lymphoid tissues of SIV-infected pigtailed macaques during suppressive combination antiretroviral therapy. *J Med Primatol.* 2005;34(3):109-121.
  28. Rusch M, Farzadegan H, **Tarwater PM**, Safaeian M, and Strathdee SA. Sexual risk behaviour among injection drug users before availability of highly active antiretroviral therapy. *AIDS and Behavior* 2005; 9(3):289-299.
  29. Orr S, Newton E, **Tarwater PM**, Weismiller D. Factors associated with prenatal smoking among black women in Eastern North Carolina. *Matern Child Health J* 2005;9(3):245-252.
  30. Green, C.F., Gibbs, S.G., **Tarwater PM**, Mota, L.C., Scarpino, P.V. Bacterial Plume Emanating from the Air Surrounding Swine Confinement Operations. *J Occup Environ Hyg* 2006; 3(1):9-15.
  31. Leyva M., Byrd T. and **Tarwater P.** Attitudes towards cervical cancer screening: A

- study of beliefs among women in Mexico. *California Journal of Health Promotion* 2006; 4(2):13-24.
32. Babas T, Dewitt JB, Mankowski JL, **Tarwater PM**, Clements JE, Zink MC. Progressive selection for neurovirulent genotypes in the brain of SIV-infected macaques. *AIDS* 2006; 20(2):197-205.
  33. Wachtman LM, **Tarwater PM**, Queen SE, Adams RJ. and Mankowski JL. Platelet decline: An early predictive hematologic marker of Simian Immunodeficiency Virus central nervous system disease. *J Neurovirology* 2006;12(1):25-33.
  34. Barber SA, Gama L, Dudaronek JM, Voelker T, **Tarwater PM** and Clements JE. Mechanism for the establishment of transcriptional latency of HIV in the brain in a simian immunodeficiency virus-macaque model. *J Infect Dis* 2006;193(7):963-70.
  35. Lai D, **Tarwater PM**, Hardy RJ. Measuring impact of HIV/AIDS, diseases of the heart and malignant neoplasms on life expectancy in the United States from 1987 to 2000. *Public Health* 2006;120(6):486-92.
  36. Gibbs SG, Green CF, **Tarwater PM**, Mota LC, and Scarpino PV. Isolation of antibiotic resistant bacteria from the air plume downwind of a swine confined or concentrated animal feeding operation. *Environ Health Perspect* 2006; 114(7):1032-37.
  37. Barber SA, Gama L, Li M, Voelker T, **Tarwater PM**, Carruth LM and Clements JE. Longitudinal Analysis of SIV Replication in the Lung: Compartmentalized Regulation of SIV. *J Infect Dis* 2006;194(7):931-38.
  38. Gibbs SG, Sobieraj J, Harris H, Steel H, **Tarwater PM**, and Ortiz M. Comparison of Non-Deployable Hearing Profiles by Army Component (Active Duty, National Guard and Reserve) and by Gender. *Military Medicine* 2006;171(10):967-69.
  39. Laast VA, Pardo CA, **Tarwater PM**, Queen SE, Reinhart TA, Ghosh M, Adams RJ, Zink MC, and Mankowski JL. Pathogenesis of SIV-induced alterations in macaque trigeminal ganglia. *J Neuropathol Exp Neurol* 2007;66(1):26-34.
  40. Wachtman LM, **Tarwater PM**, Skolasky RL, Esposito D, Schifitto G, Marder K, McDermott MP, Cohen BA, Nath A, Sacktor N, Epstein LG, Mankowski JL, and McArthur JC. Platelet decline: An avenue for investigation into the pathogenesis of Human Immunodeficiency Virus (HIV)-Associated Dementia. *Archives of Neurology* 2007; 64(9)1264-72.
  41. Fallert BA, Poveda S, Schaefer TM, Pfeifer ME, Sangavi SK, **Tarwater PM**, Watkins SC, Murphy-Corb ME, Kirschner DE, and Reinhart TA. Virologic and immunologic events in hilar lymph nodes during the course of simian immunodeficiency virus infection. *J Acquir Immune Defic Syndr* 2008; 47(1):16-26.
  42. Sivaraman K., **Tarwater P.M.**, and Cole A.M. Codon choice in genes depends on flanking sequence information – implications for theoretical reverse translation. *Nucleic Acids Res* 2008; 36(3):ePub .
  43. Qin S., Sui Y., Soloff A.C., Junecko B.A., Kirschner D.E., Murphy-Corb M.A., Watkins B.A., **Tarwater P.M.**, Pease J.E., Barratt-Boyes S.M., and Reinhart T.A.

- Chemokine and cytokine mediated loss of regulatory T cells in lymphoid tissues during pathogenic simian immunodeficiency virus infection. *J Immunol* 2008; 180(8):5530-36.
44. Mota LC, Gibbs SG, Green CF, Payan F, **Tarwater PM**, and Ortiz M. Characterization of seasonal indoor and outdoor bioaerosols in the arid environment of El Paso, Texas. *J Environ Health* 2008; 70(10):48-53.
  45. Mota, L.C., Gibbs, S.G., Green C.F., Flores, C.M., **Tarwater, P.M.**, and Ortiz, M. Seasonal fine and coarse culturable fungal constituents and concentrations from indoor and outdoor air samples taken from an arid environment. *J Occupational and Environmental Hygiene* 2008; 5(8): 511-518.
  46. Makley M.J., English J., D.A. Drubach D.A., Kreuz A.J., and **Tarwater P.** Prevalence of Sleep Disturbance in Closed Head Injury Patients on a Rehabilitation Unit. *Neurorehabil Neural Repair* 2008;22(4):341-7.
  47. Mankowski J.L, Queen S.E., Fernandez C.S., **Tarwater P.M.**, Karper J.M., Adams R.J., and Kent S.J. Natural host genetic resistance to lentiviral CNS disease: A neuroprotective MHC class I allele in SIV-infected macaques. *PLoS ONE* 2008; 3(11):e3603.
  48. Makley MJ, Johnson-Green L., **Tarwater PM**, Kreuz AJ Spiro J, Rao V, and Celnik P. Return of Memory and Sleep Efficiency Following Moderate to Severe Closed Head Injury. *Neurorehabil Neural Repair* 2009; 23:320-326.
  49. Sobieraj, J., Gibbs, S.G., Steele, H., Harris, M., **Tarwater, P.M.**, and Ortiz, M. Hearing Threshold Comparisons between 2001-02 NHANES and 2003-05 Fort Bliss U.S. Army Service Components. *Journal of Occupational and Environmental Hygiene. Military Medicine* 2009;174:42-46.
  50. Ding M, **Tarwater PM**, Rodriguez M, Chatterjee R, Ratner D, Roy P, Mellors J, Neogi D, Gupta P. Estimation of the predictive role of plasma viral load on CD4 decline in HIV-1-infected subjects in India using real time RTPCR assay. *J Acquir Immune Defic Syndr* 2009; 50(2):119-125.
  51. Rodriguez MA, Ding M, Ratner D, Chen Y, Tripathy SP, Kulkarni SS, Chatterjee R, **Tarwater PM**, Gupta P. High Replication fitness and transmission efficiency of HIV-1 subtype C from India: Implications for subtype C predominance. *Virology* 2009; 385(2):416-24.
  52. Ebenezer GJ, Laast VA, Dearman B, Hauer P, **Tarwater PM**, Adams RJ, Zink MC, McArthur JC, and Mankowski JL. Altered cutaneous nerve recognition in a simian immunodeficiency virus/macaque intracutaneous axotomy model. *J Comp Neurol* 2009; 514(3):272-283.
  53. Mota A, Mena KD, Soto-Beltran M, **Tarwater PM**, Chaidez C. Risk assessment of cryptosporidium and giardia in water irrigating fresh produce in Mexico. *Journal of Food Protection* 2009;72(10):2184-88.
  54. Quinn GA, **Tarwater PM**, and Cole AM. Subversion of IL-1-mediated host defense by a nasal carrier strain of Staphylococcus aureus. *Immunology* 2009;128(1):e222-e229..

55. Witwer KW, Gama L, Li M, Bartizal CM, Queen SE, Varrone JJ, Brice AK, Graham DR, **Tarwater PM**, Mankowski JL, Zink MC, Clements JE. Coordinated Regulation of SIV Replication and Immune Responses in the CNS. *PLoS ONE* 2009; 4(12):e8129.
56. Gupta RG, Kelly KM, Helke KL, Queen SE, Karper JM, Dorsey JL, Brice AM, Adams RJ, **Tarwater PM**, Kolson DL, and Mankowski JL. HIV and SIV Induce Alterations in CNS CaMKII Expression and Activation: A Potential Mechanism for Cognitive Impairment. *Am J Pathology* 2010; 176(6):2776-84.
57. Shen C, Ding M, ; Craigo JK, **Tarwater PM**, Chatterjee R, Roy P, Guha SK, Saha B, Modake D, Neogi D, Chen Y, Gupta P. Genetic characterization of HIV-1 from semen and blood from clade C-infected subjects from India and effect of therapy in these body compartments. *Virology* 2010; 401(2):190-96.
58. Zink MC, Brice AK, Kelly KM, Quenn SE, Gama L, Li M, Adams RJ, Bartizal C, Varrone J, Rabi SA, Graham DR, **Tarwater PM**, Mankowski JL, Clements JE. SIV-infected macaques treated with highly active antiretroviral therapy (HAART) have reduced CNS virus replication and inflammation but persistence of viral DNA. *J Infect Dis* 2010; 202(1):161-70.
59. Awad, AHA, El Morsy, T.H., **Tarwater, P.M.**, Green, C.F., and Gibbs, S.G. Air biocontamination in a variety of agricultural industry environments in Egypt: a pilot study. *Aerobiologia*. 2010; 26(3):223-232.
60. Qin SL, Junecko BAF, Trichel AM, **Tarwater PM**, Murphey-Corb MA, Kirschner DE, Reinhart TA. Simian immunodeficiency virus infection alters chemokine networks in lung tissues of cynomolgus macaques association with pneumocystis carinii infection. *Am J Pathol* 2010; 177(3):1274-85..
61. Cole AM, Patton DL, Rohan LC, Cole AL, Cosgrove-Sweeny Y, Rogers NA, Ratner D, Sassi AB, Lackman-Smith C, **Tarwater PM**, Ramratnam B, Ruchala P, Lehrer RI, Waring AJ, and Gupta P. The formulated microbicide RC-101 was safe and antivirally active following intravaginal application in pigtailed macaques. *PLoS ONE* 2010; 5(11):e15111.
62. Qin S, Alcorn JF, Craigo JK, Tjoeng C, **Tarwater PM**, Kolls JK and Reinhart TA. Epigallocatechin-3-Gallate Reduces Airway Inflammation in Mice through Binding to Proinflammatory Chemokines and Inhibiting Inflammatory Cell Recruitment. *J Immuno* 2011; 186(6):3693-3700
63. Gao J., Zhang Y., Tang X., Tucker L.D., **Tarwater P.M.**, Quesenberry P.J., Rigoutsos I., and Ramratnam B. The Evi1, microRNA-143, K-Ras Axis in Colon Cancer. *FEBS Letters* 2011; 585(4):693-699.
64. Stanley BA, Graham DR, James J, Mitsak M, **Tarwater PM**, Robbins J, and Van Eyk JE. Altered myofilament stoichiometry in response to heart failure in a cardioprotective alpha-myosin heavy chain transgenic rabbit model. *Proteomics Clinical Applications* 2011; 5(3-4):147-158.

65. Li M, Patton D, Cosgrove-Sweeny Y, Ratner D, Rohan L, Cole A, **Tarwater P**, Gupta P, and Ramratnam B. Incorporation of the HIV-1 microbicide cyanoviran-N in a food product. *JAIDS* 2011; 58(4):379-384.
66. Laast VA, Shim B, Johanek LM, Dorsey JL, Hauer PE, **Tarwater PM**, Adams RJ, Pardo CA, McArthur JC, Ringkamp M, and Mankowski JL. Macrophage-mediated dorsal root ganglion damage precedes altered nerve conduction in SIV-infected macaques. *Am J Path* 2011; 179(5):
67. Meulendyke KA, Pletnikov MV, Engle EL, **Tarwater PM**, Graham DR, Zink MC. Early Minocycline Treatment Prevents a Decrease in Striatal Dopamine in an SIV Model of HIV-Associated Neurological Disease. *J Neuroimmune Pharmacol.* 2011; 7(2):454-464.
68. Pegu P, Helmus R, Gupta P, **Tarwater P**, Caruso L, Shen C, Ross T, and Chen Y. Induction of strong anti-HIV cellular immunity by a combination of clostridium perfringens expressing HIV gag and virus-like particles. *Current HIV Research* 2011; 9(8): 613-622.
69. Kelly KM, **Tarwater PM**, Karper JM, Bedja D, Queen SE, Tunin RS, Adams RJ, Kass DA, Mankowski JL. Diastolic dysfunction is associated with myocardial viral load in simian immunodeficiency virus-infected macaques. *AIDS* 2012; 26(7):815-823.
70. Velasco A, Ono C, Nugent K, **Tarwater P**, and Kumar A. Ultrasonic evaluation of the radial diameter in a local population from Texas. *Journal of Invasive Cardiology* 2012; 24(7):339-341.
71. Awad AHA, Gibbs SG, **Tarwater PM**, Casillas ME, Green CF. Seasonal evaluation of fine and coarse culturable bacterial aerosols from residences within a rural and an urban city in Egypt. *Intl J Environ Health Res* 2013; 23(4):269-280.
72. Qin S, Fallert Junecko BA, Lucero CM, Klamar CR, Trichel A, Murphy-Corb M, **Tarwater PM**, Kirschner DE, Reinhart TA. Simian immunodeficiency Virus Infection Potently Modulates Chemokine Networks and Immune Environments in Hilar Lymph Nodes of Cynomolgus Macaques. *J Acquir Immune Defic Syndr* 2013; 63(4):428-37.
73. Soto-Beltran, M, Mena KD, Gerba CP, **Tarwater PM**, Reynolds K and Chaidez C. Risk assessment of *Listeria monocytogenes* in queso fresco in Culiacan, Mexico. *Journal of Food Safety* 2013; 3(3):111-116.
74. Awad AHA, Gibbs SG, **Tarwater PM**, Green CF. Coarse and Fine Culturable Fungal Air Concentrations in Urban and Rural Homes in Egypt. *Int J Environ Res Public Health* 2013; 10(3):936-949.
75. Eade, CR, Cole AL; Diaz, C; Rohan LC; Parniak MA, Marx P; **Tarwater PM**; Cole AM. The anti-HIV microbicide candidate RC-101 inhibits pathogenic vaginal bacteria without harming endogenous flora or mucosa. *American Journal of Reproductive Immunology* 2013; 69(2):150-158.
76. Wood MP, Cole AL, Ruchala P, Waring AJ, Rohan LC, Marx P, **Tarwater PM**, Gupta P, and Cole AM. A compensatory mutation provides resistance to disparate

- HIV fusion inhibitor peptides and enhances membrane fusion. *PLOS One* 2013; 8(2):e55478.
77. Sisk JM, Witwer KW, **Tarwater PM**, Clements JE. SIV replication is directly downregulated by four antiviral miRNAs. *Retrovirology* 2013; 10(95):1-15.
78. Svoboda SJ, Harvey TM, Owens BD, Brechue WF, **Tarwater PM**, Cameron KL. Changes in serum biomarkers of cartilage turnover after anterior cruciate ligament injury. *Am J Sports Med* 2013; 41(9): 2108-2116.
79. Kelly KM, Beck SE, Metcalf-Pate KA, Queen SE, Dorsey JL, Adams RJ, Avery L, Hubbard W, **Tarwater PM**, Mankowski JL. Neuroprotective maraviroc monotherapy in SIV-infected macaques: Reduced replicating and latent SIV in the brain. *AIDS* 2013; 27(18):21-28.
80. Beale EG, **Tarwater PM**, Lee VH. A retrospective look at replacing face-to-face embryology instruction with online lectures in a human anatomy course. *Anatomical Sciences* 2014; 7(3):234-41.
81. Dwivedi AK, Mallawaarachchi I, Lee S, **Tarwater PM**. Methods for estimating relative risk in studies of common binary outcomes. *J Applied Statistics* 2014; 41(3):484-500.
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87. Woolard R , Liu J, Parsa MD, Merriman G, **Tarwater PM**, Alba I, Villabos S, Ramos R, Bernstein J, Bernstein E, Bond J, Cherpitel C,. Smoking is associated with increased risk of binge drinking in a young adult Hispanic population at the U.S. - Mexico Border. *Substance Abuse* 2015; 36(3):318-324.

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91. Dwivedi A, Mallawaarchchi I, Figueroa-Casas JB, Morales AM, **Tarwater PM**. Multinomial logistic regression approach to the evaluation of binary diagnostic tests in medical research. *Statistics in Transition* 2015; 16(2):1-20.
92. Beck SE, Queen SE, Viscidi R, Johnson D, Kent SJ, Adams RJ, **Tarwater PM**, Mankowski JL. Central nervous system-specific consequences of simian immunodeficiency Gag escape from major histocompatibility complex class I-mediated control. *Journal of NeuroVirology* 2016; 22(4):498-507.
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94. Walker-Sperling VEK, Pohlmeier CW, **Tarwater PM**, Blankson JN. The effect of latency reversal agents on primary CD8+ cells: Implications for shock and kill strategies for human immunodeficiency virus eradication. *EBioMedicine* 2016; 8:217-229.
95. Walker-Sperling VEK, Merlo C, Buckheit R, Lambert A, **Tarwater PM**, Kirk G, Drummond B, Blankson JN. HIV controller T cells effectively inhibit viral replication in alveolar macrophages. *AIDS Res Hum Retroviruses* 2016; 32(10-11):1097-1099.
96. Knight AC, Brill SA, Queen SE, **Tarwater PM**, Mankowski JL. Increased Microglial CSF1R Expression in the SIV/Macaque Model of HIV CNS Disease. *Journal of Neuropathology and Experimental Neurology* 2018; 77(3):199-206.
97. Cole AL, Schmidt-Owens M, Beavis AC, Chong CF, **Tarwater PM**, Schaus J, Deichen MG, Cole AM. Cessation from smoking improves innate host defense and clearance of experimentally inoculated nasal *S. aureus*. *Infection and Immunity* 2018; 86(4).
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99. Makley MJ, Monden KR, Philippus A, **Tarwater PM**, Newman J, Biggs J, Spier E, Weintraub A. Objective measures of sleep and wakefulness in patients with moderate

- to severe brain injury on an inpatient rehabilitation unit. Pearls and pitfalls of actigraph monitoring. *NeuroRehabilitation* 2018; 43(3):277-285.
100. Girardi V, Mena KD, Albino SM, Demoliner M, Gularte JS, de Souza FG, Rigotto C, Schneider VE, Paesi SO, **Tarwater PM**, Spiliki FR. Microbial risk assessment in recreational freshwaters from southern Brazil. *Science of the Total Environment* 2019; 651:298-308.
101. Makley MJ, Gerber D, Newman JK, Philippus A, Monden KR, Biggs J, Spier E, **Tarwater PM**, Weintraub A. Optimized Sleep After Brain Injury (OSABI): A pilot study of a sleep hygiene intervention for individuals with moderate traumatic brain injury. *Neurorehabilitation and Neural Repair* 2020; 34(2):111-121.
102. Upputuri B, Pallapati MS, **Tarwater PM**, Srikantam A. Thalidomide in the treatment of erythema nodosum leprosum (ENL) in an outpatient setting: A five-year retrospective analysis from a leprosy referral centre in India. *PLOS Negl Top Dis* 2020; 14(10):e0008676.
103. McCarron ME, Weinberg RL, Izzi JM, Queen SE, **Tarwater PM**, Misra SL, Russakoff DB, Oakley JD, Mankowski JL. Combining in vivo corneal confocal microscopy with deep learning analysis reveals sensory nerve fiber loss in acute SIV infection. *Cornea* 2021; 40(6):635-642.
104. Arab T, Mallick ER, Huang Y, Dong L, Liao Z, Zhao Z, Smith B, Haughey NJ, Pienta KJ, Slusher BS, **Tarwater PM**, Tosar JP, Zivovic AM, Vreeland WN, Paulitis ME, Witwer KW. Characterization of extracellular vesicles and artificial nanoparticles with four orthogonal single-particle analysis platforms. *Journal of Extracellular Vesicles* 2021; 10:e12079.
105. Altomare T, **Tarwater PM**, Ferguson AC, Solo-Gabriele HM, Mena KD. Estimating health risks to children associated with recreational play on oil spill-contaminated beaches. *Int J Environ Res PH* 2021; 18(1):126. <https://doi.org/10.3390/ijerph18010126>
106. Gupta P, Sanyal A, **Tarwater P**, Paul N, Alaoui-El-Azher M, McGowan I, Srinivas V, Maillard RB, Sluis-Cremer N. Frequency of latent, replication-competent HIV-1 in rCD4+ T cells from rectal tissue and blood of HIV-1-infected subjects under therapy. *AIDS Research and Human Retroviruses* 2021 (Submitted)

**CURRICULUM VITAE****PATRICK M. TARWATER****PART II****TEACHING***Advisees***University of Texas Health Sciences Center at Houston School of Public Health  
(2002 – 2007) (2016 – 2019)***Academic Advisor*Primary:

- |                             |                                |
|-----------------------------|--------------------------------|
| 1. Sarah Duzinski (MPH '03) | 2. Veronica Pedregon (MPH '05) |
| 3. Kendra Witt (MPH '05)    | 4. Carolyn Cooper (MPH '06)    |
| 5. Jessica Mora (DrPH '16)  | 6. Jennifer Neilsen (MPH '18)  |
| 7. Brianna Webb (MPH '18)   | 8. Ricardo Pulido (MPH '18)    |

Secondary:

- |                                 |                               |
|---------------------------------|-------------------------------|
| 1. Shelby Blackmon (MPH '04)    | 2. Lynne McNicol (MPH '04)    |
| 3. David Lopez (MPH '04)        | 4. Kylene Kilgore (MPH '04)   |
| 5. Brandy Peterson (MPH '07)    | 6. Ariana Arciero (MPH '05)   |
| 7. Myriam Leyva (MPH '05)       | 8. Cheri Railey (MPH '06)     |
| 9. Arthur Islas (MPH '07)       | 10. Irma Carrillo (MPH '07)   |
| 11. Kristenmae Claros (MPH '07) | 12. Ulysses Urquidi (MPH '07) |
| 13. Norma Fernandez (MPH '08)   | 14. Amy Witten (MPH '08)      |
| 15. Seth Parker (DrPH '18)      |                               |

*Thesis/Dissertation Advisor:*

Sarah Duzinski: *Evaluation of Clinical Markers of Disease Progression as Prognostic Indicators of Response after Supervised Interruption of Initial HAART among HIV-Positive Patients*, MPH 2004

Veronica Pedregon: *Economic Consequences of Minority Status as a Determinant of Racial/Ethnic Inequalities in Health*, MPH 2005

Carolyn J. V. Cooper: *Lost Opportunities: Umbilical Cord Blood Banking and Donation Habits in El Paso, Texas*, MPH 2006

Jessica Mora: *Group versus Individual Culturally Tailored and Theory Based Education to Promote Cervical Cancer Screening Among the Underserved: A Randomized Controlled Trial*, DrPH 2017

Jennifer Nielsen: *The Motivating Factors and Barriers of Volunteerism amongst Physicians in Free Clinics and Possible Pathways through Public Policy*, MPH 2018

**Texas Tech University Health Science Center Paul L. Foster School of Medicine  
(2008 – 2016)***Scholarly Activity Research Project Advisor (SARP)*

Lindsey Smith: *Evaluation of differential effect modification in clinical studies using recursive partitioning*, MD 2013.

Scott Grant: *Poisson regression model for infant mortality in the state of Texas, MD 2013.*

**Department of Epidemiology, Johns Hopkins Bloomberg School of Public Health (1999 – 2002)**

*Advisor:* Laura Novelli (MS), Kate Gilroy (MS), Melissa Marx (PhD),  
*Committee:* Megan McSorley, Leena Choi, Laowattana, Nilsa Logo-Berrios, Erika Avila-Tang, Mauro Sanchez, Tsuo-Hung Lan, Alain Labrique, Jonathan Golub

**Department of Mathematics, University of St. Thomas, Houston, TX (1993 – 1997)**

*Advisor:* A Adai, K Fink, L Dickey, W Braun, B Escalero

***Classroom Instruction***

CURRENT/RECENT COURSES

**Department of Epidemiology, Johns Hopkins Bloomberg School of Public Health**

2019- Instructor, *Epidemiologic Inference in Public Health II*, Department of Epidemiology

2005- Instructor, *Advanced Data Analysis*, Graduate Summer Institute of Epidemiology and Biostatistics

PAST COURSES

**Short Courses**

2016 Instructor, *Study Design and Analysis*, Fogarty Grant, University of Pittsburgh and LEPRAS Society, Hyderabad, India

2013-17 Instructor, *Data Analysis for Biomedical Researchers*, Department of Microbiology and Infectious Diseases, University of Pittsburgh Graduate School of Public Health

2005-06 Instructor, Biostatistics and Epidemiology in Clinical Research, Texas Tech School of Medicine

2002- 04 Instructor, Data Analysis I and II, *Graduate Summer Institute of Epidemiology and Biostatistics*, Johns Hopkins Bloomberg School of Public Health

2001-05 Instructor, *The Graduate Training Program in Clinical Investigation* Johns Hopkins School of Medicine

**University of Texas Health Science Center School of Public Health**

2018 Instructor, *Introduction to Biostatistics*

2016-18 Instructor, *Foundations of Biostatistics*

**Texas Tech University Graduate School of Biomedical Sciences**

2012-16 Course Creator, Director and Instructor, *Fundamentals of Biostatistics*

**Texas Tech University Paul L. Foster School of Medicine**2008-16 Course Creator, Director and Instructor, *Basic and Clinical Biostatistics***Division of Biostatistics, University of Texas Health Science Center School of Public Health**

2011 Instructor, *Introduction to Biostatistics*  
 2007-08 Instructor, *Statistical Methods in Epidemiology*  
 2002-08 Instructor, *Intermediate Biometric Methods I and II*  
 Co-Instructor, *Introduction to Biometry*  
 Co-Instructor, *Advanced Epidemiologic Methods*  
 Co-Instructor, *Epidemiologic Proposal Development*

2002-04 Instructor, *HIV Epidemiology*  
 Instructor, *Data Analysis I and II*

**Department of Epidemiology, Johns Hopkins School of Hygiene and Public Health**2000-02 Instructor, *Design and Applications of Case-Control Studies, Methods in Epidemiology.***Department of Mathematics, University of St. Thomas**1993-97 Instructor, *Calculus (I, II, and III), Elementary Statistics, Intermediate Statistics, Probability, Applied Data Analysis, College Algebra, Business Calculus,***RESEARCH GRANT PARTICIPATION***Active Support:*

<b>U24OD023382 (Jacobson/Parker)</b>	<b>9/21/2016-8/31/2023</b>
NIH	\$10,656,066
ECHODAC (Environmental Influences on Child Health Outcomes Data Analysis Center)	
The ECHO Program will create an extensive resource for elucidating the roles of environmental and genetic characteristics that affect child health. The Data Analysis Center will advance ECHO research by providing state-of-the-art study designs and analyses, and by publicizing high quality, well documented ECHO data to promote informative analyses by the scientific community at-large.	
<b>Role: Co-Investigator</b>	<b>90%</b>

*Modifications/Overlap:* None*Pending:* None*Completed Support:*

<b>U01-AI-35043 Muñoz, A (PI)</b>	<b>4/1/99-3/31/03</b>
Center for the Analysis and Management of the MACS Data (CAMACS)	
NIH (NIAID)	\$ 8,389,465
<b>Role: Co-Investigator</b>	<b>50% effort</b>
<b>U01-AI-42590 Muñoz, A (PI)</b>	<b>4/1/99-3/31/03</b>
Women's Interagency HIV Study Data Management and Analysis Center (WDMAC)	
NIH (NIAID)	\$ 7,527,354

<b>Role: Co-Investigator</b>	<b>50% effort</b>
<b>DAD A09-03-P-0191 (P Tarwater, PI)</b>	<b>10/1/02-9/30/03</b>
WBAMC	\$ 6,573
<b>Role: Clinical Investigation Committee</b>	<b>6%</b>
<b>P01 MH 070056 Nath, A (PI)</b>	<b>7/1/03-6/30/07</b>
Immunophilin ligands for HIV dementia and neuropathy	
Johns Hopkins School of Medicine	\$ 5,616,401
Univ of Texas Subcontract (P Tarwater, PI)	\$
<b>Role: Co-Investigator &amp; Principal Biostatistician</b>	<b>5%</b>
<b>R01 NS 047984 Clements, J (PI)</b>	<b>3/1/04-2/28/09</b>
Glial cell inflammatory mechanisms and CNS regulation	
Johns Hopkins School of Medicine	\$ 1,842,401
Texas Tech Subcontract (P Tarwater, PI)	\$
<b>Role: Co-Investigator &amp; Principal Biostatistician</b>	<b>5%</b>
<b>R01 MH 069116 Zink, C (PI)</b>	<b>4/1/04-3/31/09</b>
Neuroprotective effects of minocycline in lentiviral inf	
Johns Hopkins School of Medicine	\$ 2,914,420
Texas Tech Subcontract (P Tarwater, PI)	\$
<b>Role: Co-Investigator &amp; Principal Biostatistician</b>	<b>5%</b>
<b>R01 HL 078479 Mankowski, J (PI)</b>	<b>8/1/04-7/31/09</b>
Viral host interactions in SIV cardiac dysfunction	
Johns Hopkins School of Medicine	\$ 2,659,377
Texas Tech Subcontract (P Tarwater, PI)	\$
<b>Role: Co-Investigator &amp; Principal Biostatistician</b>	<b>5%</b>
<b>R01 AI 060422 Reinhart, T (PI)</b>	<b>3/1/05-2/28/10</b>
Chemokine modulation during infection and AIDS	
University of Pittsburgh School of Public Health	\$ 2,586,691
Texas Tech Subcontract (P Tarwater, PI)	\$
<b>Role: Co-Investigator &amp; Principal Biostatistician</b>	<b>5%</b>
<b>U19 AI 065430 (P Gupta, PI)</b>	<b>7/1/05-6/30/10</b>
CV-N secreting lactobacilli and retrocyclin microbicides	
CORE – Administrative and data management	
University of Pittsburgh School of Public Health	\$ 4,940,094
Texas Tech Subcontract (P Tarwater, PI)	\$
<b>Role: Principal Biostatistician &amp; Director for the Data Center</b>	<b>5%</b>
<b>R01 HD 052436 (P Gupta, PI)</b>	<b>7/1/06-6/30/11</b>
Semen in transmission of HIV	
University of Pittsburgh School of Public Health	\$ 2,445,474
Texas Tech Subcontract (P Tarwater, PI)	\$
<b>Role: Principal Biostatistician &amp; Director for the Data Center</b>	<b>5%</b>
<b>R01 NS 055651 (J Mankowski, PI)</b>	<b>7/13/06-5/31/10</b>
Mechanisms of HIV-Induced PNS Disease: The SIV/Macaque Model	
NIH(NINDS) via Johns Hopkins School of Medicine	\$ 2,486,634
Texas Tech Subcontract (P Tarwater, PI)	\$
<b>Role: Co-Investigator &amp; Principal Biostatistician</b>	<b>5%</b>
<b>P40 RR 019995 (RJ Adams, PI)</b>	<b>7/1/06-6/30/11</b>

Development of an spf macaca nemestrina breeding colony Johns Hopkins School of Medicine Texas Tech Subcontract (P Tarwater, PI) <b>Role: Co-Investigator &amp; Principal Biostatistician</b>	\$ 4,864,244 \$ <b>5%</b>
<b>MoU, University of Texas HSC, Houston</b> UT-H School of Public Health <b>Instructor, PH1690 (Fundamentals of Biostatistics)</b>	<b>8/01/11 – 12/31/11</b> <b>25%</b>
<b>R01 CA 140605-01A2 (C Damodoran, PI)</b> Dietary prevention of prostate cancer (CDP) NIH via Texas Tech University HSC <b>Role: Co-Investigator</b>	<b>6/1/12-5/31/13</b> \$ 298,893 \$ <b>5%</b>
<b>U19 AI 082623 (P Gupta, PI)</b> CSIC and Entry Inhibitor Retrocyclin as Combination Microbicides University of Pittsburgh School of Public Health Texas Tech Subcontract (Tarwater, PI) <b>Role: Co-Investigator and Principal Biostatistician</b>	<b>9/1/09-8/31/13</b> \$ 7,292,049 \$ <b>10%</b>
<b>R01 MH 85554 (MC Zink, PI)</b> IDO Regulation in the SIV model of HIV CNS Disease NIH via Johns Hopkins School of Medicine Texas Tech Subcontract (Tarwater, PI) <b>Role: Co-Investigator &amp; Principal Biostatistician</b>	<b>5/1/09-2/28/14</b> \$ 2,852,819 \$ <b>10%</b>
<b>R56AI 104713-01A1 (T Reinhart, PI)</b> NIH via University of Pittsburgh School of Public Health Texas Tech Subcontract (P Tarwater, PI) <b>Role: Co-Investigator &amp; Principal Biostatistician</b>	<b>9/1/13-8/31/14</b> \$ 704,473 \$ <b>10%</b>
<b>P01 MH 70306 (JE Clements, PI)</b> CNS & peripheral viral resevoirs/SIV model of HIV HAART NIH via Johns Hopkins School of Medicine Texas Tech Subcontract (Tarwater, PI) <b>Role: Co-Investigator &amp; Principal Biostatistician</b>	<b>12/1/04-11/30/14</b> \$15,595,301 \$ <b>15%</b>
<b>R01 MH087233 (MC Zink, PI)</b> Minocycline Immune Effects on SIV CNS Disease NIH via Johns Hopkins School of Medicine Texas Tech Subcontract (Tarwater, PI) <b>Role: Co-Investigator &amp; Principal Biostatistician</b>	<b>9/1/09-3/31/15</b> \$ 2,934,699 \$ <b>4%</b>
<b>R21 AI 102659-01A1 (KW Witwer, PI)</b> Circulating Cellular and Extracellular Noncoding RNAs in HIV-1 Elite Suppression NIH via Johns Hopkins School of Medicine Texas Tech Subcontract (Tarwater, PI) <b>Role: Co-investigator &amp; Principal Biostatistician</b>	<b>8/1/13-7/31/15</b> \$ 443,533 \$ <b>10%</b>
<b>R01 NS076357 (JE Clements, PI)</b> Plasma mRNA biomarkers of HIV/SIV CNS disease NIH via Johns Hopkins School of Medicine UT Health SPH Subcontract (Tarwater, PI) <b>Role: Co-Investigator &amp; Principal Biostatistician</b>	<b>7/1/12-6/30/17</b> \$ 2,636,442 \$ <b>10% effort</b>
<b>R01 HD 072693 (B Ramratnam, PI)</b>	<b>4/1/12-2/28/17</b>

Reproductive hormones and their impact on HIV acquisition	
NIH via Rhode Island Hospital	\$ 2,414,249
UT Health SPH Subcontract (Tarwater, PI)	\$
<b>Role: Co-Investigator &amp; Principal Biostatistician</b>	<b>5%</b>

<b>SPC-000692/G-231817 (Solo-Gabriele, PI)</b>	<b>1/1/2018-12/31/2019</b>
Beach Exposure And Child HEalth Study (BEACHES)	
Gulf of Mexico Research Initiative via Univ of Miami	\$1,000,000
UT Health SPH Subcontract (Mena, PI)	\$
<b>Role: Co-Investigator</b>	<b>12%</b>

## SERVICE

### *Academic*

#### **School of Public Health, University of Texas Health Sciences Center at Houston**

- Faculty Council – El Paso Representative (2018-19)
- Curriculum Development – Biostatistics (2017-19)
- Teaching Quality and Efficiency – Biostatistics (2017-19)
- Collaborating and Consulting Committee - Biostatistics (2017-19)
- Infectious Diseases/Immunology Committee – Biostatistics (2017-19)
- Online MPH Committee (2017-2018)
- Admissions Committee – El Paso Representative (2016-19)

#### **Paul L. Foster School of Medicine, Texas Tech University Health Sciences Center, El Paso, TX**

##### **School of Medicine**

- Diversity and Inclusion Faculty Committee (2014 – 2016): Chair (2015)
- Professionalism Committee (2013 – 2016)
- Director, MD/MPH Dual Degree Program (2009 – 10)
- Faculty Search Committee – CoE Infectious Disease (2009-11): 5 positions
- Faculty Search Committee – CoE Cancer (2009-11): 4 positions
- Faculty Search Committee - Director, CoE Diabetes and Obesity (2009-10)
- Faculty Search Committee - Biostatistics, Committee Chair (2008-09): 2 positions
- Faculty Search Committee - Chair, Neurology (2009)
- School of Medicine Faculty Grievance Panel (2008 – 09)
- Interviewer – Student Application Committee (2008, 09, 10)

##### **Office of Research**

- GSBS Committee (2011)
- Research Committee (2010 – present)
- Research Ad-Hoc Committee (2008 – 09)
- Seed Grant Review Committee (2008, 09)

##### **Office of Faculty Services**

- Mentor: Dr. Kanchan Pema – Mentee (2011)
- Instructor - Faculty Development Course (2008 – present)

##### **Biomedical Sciences**

Faculty Research Incentive Plan, Ad-hoc (2012)  
Research Seminar Coordinator (2008)  
Webpage development Coordinator (2008)

**Medical Education**

Evaluation Committee (2009 – 15)  
Society, Community, Individual (SCI) Curriculum Committee (2008 – 15)  
SCI - Biostatistics Thread Director (2008 – 15)  
Scholarly Project Organizational Committee (2008)  
Scholarly Project, Biomedical Sciences Group Coordinator (2008 – 14)

**Texas Tech University Health Sciences Center, Lubbock, TX**

Founding Board Member, Clinical Research Institute (2010 - 13)

**School of Medicine**

Instructor and Co-creator, Faculty Development Course (2012)

**School of Public Health, University of Texas Health Sciences Center at Houston**

Appointed Member, Biostatistics Division Head Search Committee (2006-07)  
Co-Chair, Research, (2006-07)  
Elected Member, Research Council, At-Large (2006-07)  
Elected Member, Faculty Council, Biostatistics (2003-06)  
Appointed Member, Biostatistics Division Head Nomination Committee (2003)  
Coordinator, Research Seminar, El Paso Regional Campus (2002-04)

**Department of Epidemiology, Johns Hopkins Bloomberg School of Public Health**

Epidemiology Curriculum Committee  
Student Application Review Committee  
Comprehensive Exam Grading Committee

**Department of Mathematics, University of St. Thomas**

Faculty Senate, Sciences Representative  
President's Invited Speaker Committee  
Director, Undergraduate Research Program  
Director and Inaugural Speaker, Undergraduate Mathematics Seminar  
Faculty Search Committee: Department of Computer Sciences  
Faculty Sponsor, Student Chapter of Mathematical Association of America

**Department of Mathematics, Texas Tech University**

President, SIAM Graduate Student Organization  
Director, Annual Faculty Colloquia, SIAM Graduate Organization

### *Community*

- 2016 - **Member, MPH Community Advisory Board, UTEP**
- 2012 - 13 **Member, Board of Directors, El Paso Zoological Society**
- 2009 - 11 **Member, Paso del Norte Group**
- 2008 - 09 **Member, Board of Directors, The First Tee of Greater El Paso**
- 2008 - 10 **President, Board of Directors, First Presbyterian Christian Preschool**
- 2007 - 10 **Member, Board of Directors, First Presbyterian Christian Preschool**
- 2005 - 07 **Member, Board of Directors, El Paso Counts Organization**
- 2004 - 05 **Community Advisory Board, Texas Tech Health Sciences Center - El Paso**
- 2004 - 05 **External Development Planning Committee, YMCA, El Paso, TX**
- 2002 - 04 **Clinical Investigation Committee, William Beaumont Army Medical Center, El Paso, TX**

### **PRESENTATIONS**

#### *Scientific Meetings*

- 2003 Censored observations: Teaching self-consistency equations. PM Tarwater Innovative Uses of Statistical Designs and Methods in the Health Sciences, Oral presentation, *Joint Statistical Meetings*. San Francisco (August) **\*\*Awarded Best Contributed Paper**
- 2000 Tarwater, PM. Nonlinear Models for Markers of Disease Progression in Longitudinal Studies. Invited Speaker Session: *Joint Statistical Meetings*, Indianapolis.
- 2000 Comparison of Methods to Determine the Effectiveness of Antiretroviral Therapies (ART) at the Population Level in HIV-1 Incident and Prevalent Cohorts. Tarwater PM, Muñoz A, Mellors J, Gore ME, Margolick J, Phair J, and Detels R. **Oral presentation** (ThOrC746), *13th International AIDS Conference*, Durban, South Africa, (July 10-13).
- 1997 Epidemiological Study of Mortality Rates After HealthNet Intervention in Alpine, TX. Oral presentation, Annual Meeting of the *Texas Section of the Mathematics Association of America*.
- 1996 Mixed Linear Model Analysis of University Instructors and Students. Oral presentation, Annual Meeting of the *Texas Section of the Mathematical Association of America*.
- 1992 Teaching Assistant Performance in College Algebra at Texas Tech University. Oral presentation, Annual Meeting of the *Texas Section of the Mathematics Association of America*.

#### *Invited Presentations*

- 2019 Tarwater, PM. Applications of advanced statistics and epidemiologic methods to affect clinical care using observational cohort data. *Department of Epidemiology, Johns Hopkins University, Bloomberg School of Public Health, Baltimore, MD.*

- 2018 Tarwater, PM. Biostatistics and Epidemiology in Clinical Research. *Department of Population Health, University of Texas Rio Grande Valley School of Medicine, Harlingen, TX*
- 2018 Tarwater, PM. Extension of Covariable Interaction Considerations in Clinical Research and Application in HIV Cohort Studies. *School of Public Health, Texas Tech Health Science Center, Abilene, TX*
- 2018 Tarwater, PM. Epidemiology and Biostatistics in Clinical and Basic Research. *Medical Practice Evaluation Center, Harvard School of Medicine, Boston, MA*
- 2016 Tarwater, PM. Analysis of Cohort Studies. *BUILDing SCHOLARS. UT Health SPH, El Paso, TX*
- 2013 Tarwater, PM. Basic Science Research: Non-Classical Approaches. *Veterinary Research Fellows Training, Johns Hopkins School of Medicine, Baltimore, MD.*
- 2013 Tarwater, PM. The power of patience: cohort studies. *Department of Medical Education Scholarship and Research Seminar, Texas Tech University Health Science Center, El Paso, TX*
- 2012 Tarwater, PM. (Keynote) Statistical issues in clinical research. *Research Symposium, Texas Tech University Health Science Center, Odessa, TX*
- 2011 Tarwater, PM. Basic Science Research and Statistics: Methods and Explanations. *Veterinary Research Fellows Training, Johns Hopkins School of Medicine, Baltimore, MD.*
- 2010 Tarwater, PM. Analysis of longitudinal, cohort data for infectious diseases. *Infectious Disease Institute, Accordia Global Health Foundation, Kampala, Uganda.*
- 2010 Tarwater, PM. Methods for Quality in Clinical Research. *Trauma Medicine: Grand Rounds, Paul L. Foster School of Medicine, El Paso, TX.*
- 2009 Tarwater, PM. Analysis of longitudinal, cohort data for infectious diseases. *Infectious Disease Institute, Accordia Global Health Foundation, Kampala, Uganda.*
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## **ADDITIONAL INFORMATION**

*Personal Statement:*

*Keywords:*

Epidemiology, Biostatistics, Survival Analysis, Longitudinal Data Analysis, Epidemic Models