

Curriculum Vitae
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Education

Ph.D. Columbia University, 2000, Statistics
M.A. New School for Social Research, 1995, Economics
B.S. University of Minnesota, 1993, Sociology

Experience

2017–present: Professor, Biostatistics, University of Minnesota
2016–present: Associate Director of the Coordinating Centers for Biometric Research
2007–2017: Associate Professor, Biostatistics, University of Minnesota
2000–2007: Assistant Professor, Biostatistics, University of Minnesota
2001–2007: Member of graduate faculty in Bioinformatics, University of Minnesota
1997–2000: Preceptor, Statistics, Columbia University

Honors and Awards

2017 Fellow of the American Statistical Association
2000 Award for exemplary application for Grant in aid of artistry and research, University of Minnesota
2000 John van Ryzin memorial Award for outstanding dissertation in Statistics and Biostatistics

Publications in peer-reviewed journals

1. Reilly C, Gelman A, Katz J (2001), “Post-stratification without population level information on the post-stratifying variable, with application to political polling”, *Journal of American Statistical Association*, 96, 1–12.
2. Schacker TW, Nguyen P, Beilman G, Wolinsky S, Larson M, Reilly C, Haase AT (2002) “The impact of inflammation and fibrosis in the T cell zone niche of secondary lymphatic tissues on immune reconstitution during HIV-1 infection”, *Journal of Clinical Investigation*, 110, 1133–1139.
3. Schacker TW, Nguyen P, Martinez E, Reilly C, Gatell JM, Horban A, Bakawska E, Berzins B, van Leeuwen R, Wolinsky S, Haase AT, Murphy RL (2002), “Persistent abnormalities in lymphoid tissues of HIV-infected persons on highly active anti-retroviral therapy”, *Journal of Infectious Diseases*, 186, 1092–1097.
4. Reilly C, Haase AT, Schacker TW, Krason D, Wietgreffe S (2002), “The clustering of infected SIV cells in lymphoid tissue”, *Journal of American Statistical Association*, 97, 943–954.

5. Raghavan A, Ogilvie R, Reilly C, Abelson M, Robison R, Raghavan S, Vasdewani J, Krathwohl M, Bohjanen P (2002), “Global analysis of mRNA decay in T cells”, *Nucleic Acids Research*, 30, 5529–5538.
6. Reilly C, Wang C, Rutherford M (2003), “Normalization of microarrays using the transcripts that are not differentially expressed”, *The Journal of the American Statistical Association*, 98, 868–878.
7. Zhang Z, Wietgreffe S, Li Q, Shore M, Lljie D, Reilly C, Lifson J, Haase AT (2004), “The roles of target cell availability, susceptibility and productive infection of resting and activated CD4+ T cells in transmission and acute SIV infection”, *Proceedings of the National Academy of the Sciences*, 101, 5640–5645.
8. Reilly C, Wang C, Rutherford M (2005), “A method for the comparison of cluster analyses”, *Statistica Sinica*, 15, 19–34.
9. Reilly C, Price P, Gelman A, Sandgrathe S (2005), “Using image and curve registration for measuring the goodness of fit of spatial and temporal predictions”, *Biometrics*, 60, 954–964.
10. Reilly C (2005), “Non-parametric longitudinal analysis via a set of survival problems with application to the analysis of microarrays”, *Biostatistics*, 6, 271–278.
11. Li Q, Duan L, Estes J, Ma Z-M, Rourke T, Wang Y, Reilly C, Carlis J, Miller C, Haase AT (2005), “Peak SIV replication in resting memory CD4+ T cells depletes gut lamina propria CD4+ T cells”, *Nature*, 435.
12. Vlasova I, McNabb J, Raghavan A, Reilly C, Williams D, Bohjanen P (2005), “Coordinate stabilization of growth-regulatory transcripts in T cell malignancies”, *Genomics*, 86, 159–171.
13. Li Q, Lifson J, Schacker TW, Estes J, Duan L, Reilly C, Carlis J, Liaw L, Haase AT (2005), “Potential roles for follicular dendritic cell associated osteopontin in lymphoid follicles and B cell regulation in HIV-1 and SIV infections”, *Journal of Infectious Disease*, 197, 1269–1276.
14. Schacker TW, Reilly C, Beilman G, Taylor J, Skarda D, Krason D, Larson M, Haase AT (2005), “Amount of lymphatic tissue fibrosis in HIV infection predicts magnitude of HAART associated change in peripheral CD4 cell count”, *AIDS*, 19, 2169–2171.
15. Chen R, Yokoyama M, Sato H, Reilly C, Mansky L (2005), “HIV mutagenesis during antiretroviral therapy: Impact of drug resistant reverse transcriptase and nucleoside and nonnucleoside reverse transcriptase inhibitors on HIV-1 mutation frequencies”, *Journal of Virology*, 79, 12045-12057.
16. Smith J, Schmechel S, Raghavan A, Abelson M, Reilly C, Katze M, Kaufman R, Bohjanen P, Schiff L (2006), “Reovirus induces and benefits from an integrated cellular stress response”, *Journal of Virology*, 80, 2019–2033.
17. Estes J, Li Q, Reynolds MR, Wietgreffe S, Duan L, Shacker T, Picker L, Watkins D, Lifson J, Reilly C, Carlis J, Haase AT (2006), “Premature induction of an immunosuppressive regulatory T cell response during acute SIV infection”, *Journal of Infectious Disease*, 193, 703–712.
18. Nordgaard CL, Berg KM, Kapphahn RJ, Reilly C, Feng X, Olsen TW, Ferrington DA (2006), “Proteomics of the retinal pigment epithelium reveals altered protein expression at progressive stages of age-related macular degeneration”, *Investigative Ophthalmology and Visual Science*, 47, 815–822.

19. Hataye J, Moon JJ, Khoruts A, Reilly C, Jenkins M (2006), “Naive and memory CD4+ T cell survival controlled by clonal abundance”, *Science*, 312, 114–116.
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22. Reilly C, Raghavan A, Bohjanen P (2006), “Global assessment of cross-hybridization for oligonucleotide arrays”, *Journal of Microbiological Techniques*, 17, 163–172.
23. Ethan C, Reilly C, Feng X, Olsen TW, Ferrington DA (2006), “The proteome of central and peripheral retina with progression of age-related macular degeneration”, *Investigative Ophthalmology and Visual Science*, 47, 2280–2209.
24. Lu H, Reilly C, Banerjee S, Carlin BP (2006), “Bayesian areal wombling via adjacency modeling”, *Environmental and Ecological Statistics*, 14, 433–452.
25. Skinner P, Abbassi H, Cheseboro B, Race R, Reilly C, Haase AT (2006), “Comparison of gene expression alterations in the brains of mice infected with three different strains of Scrapie”, *BMC Genomics*, 7, 114.
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[†]Co-chairs of writing committee

99. Rothenberger M, Nganou-Makamdop K, Kityo C, Ssali F, Chipman JG, Beilman GJ, Hoskulds-son T, Anderson J, Jasurda J, Schmidt TE, Calisto SP, Pearson H, Reimann T, David C, Perkey K, Southern P, Wietgreffe S, Helgeson E, Reilly C, Haase AT, Douek DC, Fletcher CV, Schacker TW (2019) “Impact of Integrase Inhibition compared to non-nucleoside inhibition on HIV reservoirs in Lymphoid Tissues”. *J Acquir Immune Defic Syndr.* doi: 10.1097/QAI.0000000000002026. [Epub ahead of print].

Book Chapters

1. Reilly C, Zeringue A. (2004), “Improved predictions of lynx trappings using a Biological model”, in 2004 *Applied Bayesian Modeling and Causal Inference from Incomplete-Data Perspectives*, ed.s Meng, X. and Gelman, A., Wiley.

Books

1. Reilly C, (2009), *Statistics in Human Genetics and Molecular Biology*, Chapman & Hall/CRC Press.

Presentations, Posters and Abstracts

1. Reilly, C. and Gelman, A. “Post-stratification without population level information: with application to political polling,” Case Studies in Bayesian Statistics Workshop 5, Pittsburgh PA, September 24-25, 1999.
2. Schacker, T., Ngyuen, P., Gatell, J., Reilly, C., Martinez, E., Horban, A., Bakawska, E., Leeuwen, R., Wolinsky, S., Haase, A., Murphy, R. “Persistent depletion of CD4+ T cells in lymphoid tissues among patients randomized to mono-class vs. dual-class regimens in the Atlantic study”, The 1st IAS conference on HIV pathogenesis and treatment, Buenos Aires, Argentina, July 8–11, 2001.
3. Reilly, C. “A method for normalizing microarrays using the transcripts that are not differentially expressed,” Cape Cod Workshop on Monte Carlo Methods, Hyannis, MA, September 13-15, 2002.
4. Schacker, T., Nguyen, P. Beilman, G., Larson, M., Reilly, C., Wolinsky, S., and Haase, A. “The impact on immune reconstitution of fibrosis in the T cell zone niche of secondary lymphatic tissues during HIV-1 infection,” presented by T. Schacker at IDSA, Chicago, October 24–26, 2002.
5. Sandgrathe, S., Reilly, C. “Comparing weather prediction models”, Northwest Weather Workshop Seattle on 6,7 March, 2003.

6. Raghavan, A., Ogilvie, R., Reilly, C., Abelson, M., Robison, R., Raghavan, S., Vasdewani, J., Krathwohl, M., Bohjanen, P. "Global analysis of mRNA decay in T cells", presented by P. Bohjanen, Vienna RNA Society, June 2003.
7. Reilly, C. "Correlation in oligonucleotide space: using the correlation to conduct more accurate inference" Joint Statistical Meetings, San Francisco, CA, August 9, 2003.
8. Reilly, C. "Correlation in oligonucleotide space: using the correlation to conduct more accurate inference" Biostatistics Department Seminar, Birmingham, AL, February 10, 2004.
9. Reilly, C. "A completely non-parametric approach to the analysis of longitudinal microarray experiments", International Conference on the Analysis of Genomic Data, Boston, MA, May 11, 2004.
10. Skinner, P., Abbassi, H., Cheseboro, B., Race, R., Reilly, C., Haase, A. "Gene expression alterations in brains of scrapie infected mice", presented by Pam Skinner, June 2004.
11. Reilly, C. "A new approach to measuring goodness of fit for spatial and temporal data", International Chinese Statistical Association, San Diego, CA, June 7, 2004.
12. Blumenthal, M., Miller, M., Reilly, C., Oetting, W., Willaert, B., Luah, S-S., Brott, M., King, R. "Analysis of ADORA3 as a possible candidate gene for Asthma", Annual Meeting of the American Academy of Allergy, Asthma and Immunology, presented by M. Blumenthal, August 2004.
13. Blumenthal, M., Reilly, C., Miller, M., Willaert, B., Luah, S-S., Oetting, W., King, R. "Identification of asthma susceptibility genes using cluster analysis", Annual Meeting of the American Academy of Allergy, Asthma and Immunology, presented by M. Blumenthal, August 2004.
14. Reilly, C. "A completely non-parametric approach to the analysis of longitudinal microarray experiments", Joint Statistical Meetings, Toronto, ON, August 11, 2004.
15. Reilly, C., Blumenthal, M., King, R., Oetting, W., Miller, M., "Asthma Phenotypes: a unique cluster of physiologic variables", Annual Meeting of the American Academy of Allergy, Asthma and Immunology, presented by M. Blumenthal, Oct. 2004.
16. Reilly, C. "Normalization of microarrays in non-standard settings" (2005), Conference for the International Society for Bayesian Analysis, Bormio, Italy, January 11, 2005.
17. Reilly, C. "Bayesian calibration of the mass/charge axis in MALDI-TOF mass spectrometry" (2005), Joint Statistical Meetings, Minneapolis, MN, August 8, 2005.
18. Fan, D., Bitterman, P., Reilly, C., "Translational Efficiency is Linked to Specific mRNA Elements During Apoptotic Rescue by Enforced Activation of the Protein Synthesis Machinery", International Conference on Intelligent Systems for Molecular Biology, presented by D. Fan, 2005.
19. Skinner, P., Abbassi, H., Cheseboro, B., Race, R., Reilly, C., Haase, A., "Gene expression alterations in brains of scrapie infected mice", Pathobiology, presented by P. Skinner, 2005.
20. Nordgaard, C.L., Berg, K. M., Kappahn, B. J., Reilly, C., Feng, X., Olsen, D. A., Ferrington, D. A., "Altered retinal pigment epithelium protein expression associated with the progression of age-related macular degeneration", The Association for Research in Vision and Ophthalmology, presented by C.L. Nordgaard, 2005.

21. Ethen, C.M., Basak, N., Feng, X., Olsen, T.W., Reilly, C., Ferrington, D.A., “Proteomic analysis of retinal protein expression with the progression of AMD”, The Association for Research in Vision and Ophthalmology, presented by C.M. Ethen, 2005.
22. Krason, D., Reilly, C., Leduc, R., Neaton, J., Abrams, D., Schacker, T., “Incomplete Immune reconstitution in HIV-1 infection after 2 years of highly active anti-retroviral therapy”, The Infectious Disease Society of America, presented by D. Krason, 2005.
23. Reilly, C. “Bayesian calibration of the mass/charge axis in MALDI-TOF mass spectrometry” (2005), Eastern North American Biometric Society Meeting, Tampa, FL, March 28, 2006.
24. Reilly, C. “A new method for detecting linkage signals from pedigrees in the presence of allelic heterogeneity” (2007), Joint Statistical Meetings, Salt Lake City, UT, August 8, 2007.
25. Zheng Y, Reilly C “Bayesian variogram modeling in a metric space” (2007), Joint Statistical Meetings, Salt Lake City, UT, August 8, 2007.
26. Li M, Reilly C, Carlin B “Bayesian multivariate spatial models for association mapping in structured samples” (2007), Joint Statistical Meetings, Salt Lake City, UT, August 8, 2007.
27. Baker J, Cavert W, Krason D, Reilly C, Henry K, Abrams D, MacArthur R, Peng G, Neaton J, Rapkin J “Poor Initial CD4+ Recovery with Anti-retroviral Therapy Prolongs Immune Depletion and Increases Risk for AIDS and Non-AIDS Diseases: Results from the CPCRA FIRST study” (2007), CROI.
28. Li Q, Duan L, Ma Z, Reilly C, Miller C, Haase AT “The critical role CD4+ T cells may play in intra-vaginal transmission of SIV” (2007), 25th Annual Symposium on Nonhuman Primate Models for AIDS.
29. Barthold B, Khoruts A, Reilly C, Haase A, Estes J, Schacker T “Collagen deposition limits immune reconstitution in the gut” (2007), CROI.
30. Reilly, C. “A spatio-temporal model of viral production by an infected cell” (2008), Joint Statistical Meetings, Denver, CO, August 5, 2008.
31. Karunadharma PP, Nordgaard CL, Reilly C, Feng X, Olsen TW, Ferrington DA “Age-related changes in protein content of the human retinal pigment epithelium” (2008), ARVO.
32. Baker J, Barthold B, Khoruts A, Estes J, Reilly C, Schacker T “Collagen deposition limits immune reconstitution in the gut” (2008), Conference on Retroviruses and Opportunistic Infections.
33. Higgins L, Yang L, Anderson LB, McGowan, TF, Reilly C, Witthuhn BA, Gourley, GR “How reproducible is iTRAQ Triplicate LC-MS/MS analysis of normal colon tissue tryptic peptides labeled with iTRAQ 4-plex reagents” (2008), American Society for Mass Spectrometry.
34. Smith AJ, Li Q, Wietgreffe SW, Schacker TW, Reilly CS, Haase AT “The relationship between virus replication and gene expression in lymphatic tissue during HIV-1 infection”, 2010, International HIV & Hepatitis Drug Resistance Workshop & Curative Strategies Conference.
35. Reilly C “An introductory overview of the current state of statistical genetics” (2011), JSM.
36. Skinner P, Kim H, Kinzel N, Reilly C, Olson K. “Treatment of prion disease with heterologous recombinant prion proteins”, 2011, Prion 2011, Montreal, Canada.

37. Zeng M, Southern PJ, Reilly CS, Schacker TW, Haase AT. "Lymphoid tissue damage in HIV-1 infection depletes naive T cells and limits naive T cell reconstitution after antiretroviral therapy", 2011, Institute for Molecular Virology Symposium, Minneapolis, MN.
38. Mauzy MJ, Lancto CA, Enomoto S, Abrohamson MS, Reilly C, Rutherford MS. "Comparative cryptosporidium transcriptomics reveals disparate patterns of *C. parvum* and *C. hominis* gene expression during in vitro culture", 2012, International Giardia and Cryptosporidium Conference, Wellington, New Zealand.
39. Li J, Li Y, Chen R, Carrera C, Reilly C, Fok A, Rudney J, Jones R, Aparicio C. "Surface degradation of dental resin composites induced by microcosm biofilms grown in a bioreactor directly from pediatric donor's plaque", 2012, World Biomaterials Congress, Chengdu, China.
40. Sanchez J, Rothenberger M, Reilly C, Russ S, Deeks S, Schacker T, "Persistent Abnormalities of Lymphoid Structures in HIV Viremic Controllers", Conference on Retroviruses and Opportunistic Infections, Atlanta, GA, 2013.
41. Rothenberger M, Stevenson M, Fletcher C, Beilman G, Chipman J, Khoruts A, Reilly C, Wietgreffe S, Haase AT, Shacker T. "Multifocal detection of HIV-1 RNA in lymphatic tissues during early viral recrudescence after treatment interruption". Conference on Retroviruses and Opportunistic Infections, Atlanta, GA, 2013.
42. Laguna TA, Williams CB, Brandy K, Welchin CW, Moen CE, Reilly CS, Wendy CH. "Sputum CC10 concentration as a potential biomarker of cystic fibrosis lung disease". The American Thoracic Society, Philadelphia, PA, 2013.
43. Laguna TA, Williams CB, Sauer A, Brandy K, Welchin CW, Moen CE, Reilly CS, Wendt CH. "Urinary desmosine and cathepsin B concentrations in healthy controls without cystic fibrosis". The American Thoracic Society, Philadelphia, PA, 2013.
44. Gulcev D, Reilly C, Nelsestuen G, Wendt C. "Plasma metabolites associated with acute exacerbations of chronic obstructive pulmonary disease". American Society for Mass Spectrometry Conference, Minneapolis, MN, 2013.
45. Pragman A, Kim H, Reilly C, Wendt C, Isaacson RE. "The lung microbiome in moderate and severe chronic obstructive pulmonary disease". The Aspen Lung Conference, Aspen, CO, 2013.
46. Reilly C "Deconvolving taxonomic contributions to group differences in microbiomic investigations". International Conference on Integrative Biology, Las Vegas, NV, 2013.
47. Jones RS, Rasmussen K, Reilly C "Examining anti-biofilm therapies to control pathogenic oral bacteria in young children", CTSI scholar poster session, University of Minnesota, MN, 2014.
48. Shang K, Reilly C "Nonparametric Bayesian analysis of the 2 sample problem with censoring", Bayesian Young Investigators Meeting, Vienna, Austria, 2014.
49. Reilly C. "The use of microbiomics in clinical investigations: overview and some recent contributions". Division of Epidemiology and Community Health, University of Minnesota, MN, 2015.
50. Reilly C "Deconvolving taxonomic contributions to group differences in microbiomic investigations with application to COPD". Biostatistics Branch, NIAID, 2016.
51. Reilly C and Neaton J "Ongoing Ebola Research in Liberia", University of Minnesota, Department of Infectious Diseases, Oct 2017.

52. Neaton J, Reilly C and Badio M “Building Biostatistics Infrastructure in West Africa”, International Conference on AIDS and STIs in Africa, Abidjan, Côte D’Ivoire, Dec 2017.
53. Reilly C “Ongoing Ebola Research in Liberia”, University of Minnesota, Global Health Day, April 2018.
54. Reilly C and Sherman B “A primer on statistical genetics”, Sequence of Webinars for INSIGHT members, Summer 2018.
55. Reilly C “A primer on statistical genetics”, INSIGHT Community Advisory Board, Seattle, WA, March 2019.

Current Research Grant Support

1. Clinical research management for Ebola
{PI: James Neaton}
 - **22% salary support for Dr. Reilly (December 2014-Present)**
 - This grant provides support for data management and logistics for a natural history study of Ebola virus disease survivors.
2. Reservoir dynamics in patients treated very early in HIV infection
{PI: Timothy Schacker}
 - **8.5% salary support for Dr. Reilly (July 2016-June 2021)**
 - This project will recruit HIV infected individuals at times very close to infection (within 1 week) by frequent testing of high risk individuals in Thailand. Upon recruitment we will obtain tissue biopsies and follow the participants longitudinally.
3. Interplay between lipophagy and mitophagy in skeletal muscle aging
{PI: Edgar Arriaga}
 - **2.5% support for Dr. Reilly. (July 2016-June 2021)**
 - This grant will use state of the art techniques to examine how skeletal muscle ages.
4. Age-related macular degeneration mitochondria and the CFH genotype
{PI: Deborah Ferrington}
 - **4% support for Dr. Reilly. (December 2016-December 2021)**
 - This grant seeks to understand the role of certain polymorphisms in age-related macular degeneration at the level of protein expression using contemporary techniques from proteomics.
5. Assessment of gene expression profiles related to hepatocellular carcinoma in HCV
{PI: Jose Debes}
 - **2% support for Dr. Reilly. (June 2018-May 2021)**
 - This R21 seeks will sample hepatocytes from individuals with with Hepatitis C and use single cell RNA-Seq to investigate the mechanism whereby HCV infected hepatocytes develop cancer.
6. PREVAIL IV
{M-PI: James Neaton and Cavan Reilly}
 - **8% support for Dr. Reilly. (April 2016-Present)**

- This contract provides statistical support for a clinical trial of an antiviral agent that may be able to rid residual Ebola virus from the male urogenital tract.
7. PREVAIL VI
{M-PI: Cavan Reilly and James Neaton}
 - **15% support for Dr. Reilly. (August 2016-Present)**
 - This contract provides statistical support for a genome wide association study of host factors that impact the course of Ebola virus disease.
 8. PREVAIL VII
{M-PI: James Neaton and Cavan Reilly}
 - **10% support for Dr. Reilly. (August 2017-Present)**
 - This contract provides statistical support for a study of cataract surgery in survivors of Ebola.
 9. PREVAIL VIII
{PI: Cavan Reilly}
 - **12% support for Dr. Reilly. (February 2018-March 2019)**
 - This contract provides statistical support for a natural history study of persons living with HIV in Liberia.
 10. PALM
{PI: James Neaton}
 - **10% support for Dr. Reilly. (December 2018-Present)**
 - This contract provides data management and statistical support for a randomized trial for Ebola therapeutics in the DRC.
 11. Blood Biomarkers as Surrogate Endpoints for Treatment Efficacy in Alzheimer’s Disease
{PI: Danni Li}
 - **3% salary support for Dr. Reilly (August 2018-May 2022)**
 - This project seeks to determine if a collection of well defined blood biomarkers can be effective surrogate endpoints in Alzheimer’s disease treatment trials.
 12. 10,000 Families Pilot Project
{PI: Cavan Reilly}
 - **0% salary support for Dr. Reilly (November 2018-November 2020)**
 - This project seeks enroll families into a longitudinal study. It is funded by the Cancer Center.
 13. HIV Biomarker Testing
{PI: James Neaton}
 - **0% salary support for Dr. Reilly (April 2018-July 2019)**
 - This project is examining biomarkers in HIV infected individuals who participated in INSIGHT trials.
 14. Adoptive transfer of haploidentical natural killer cells and IL15 super agonist N-803 in HIV
{PI: Timothy Schacker}

- **Salary support for Dr. Reilly unclear at this time**
- This project will investigate the potential for an experimental treatment to be used as part of a cure strategy for HIV.

Past Research Grant Support

1. NIH salary support from the Great Lakes Center for AIDS Research (PIs: Drs. Ashley Haase and Steve Wolinsky: Northwestern University), 50% effort, co-PI, August 2000–December 2002, 26.5% January 2003–August 2003.
2. RA salary and computing support from a University of Minnesota Grant-in-Aid of Research, Artistry, and Scholarship (PI: Cavan Reilly), Filtering for non-Gaussian observations of non-linear systems of stochastic differential equations, August 2001–August 2002.
3. CFAR Development funds, from the NIH, 74.5% effort, (PI: Cavan Reilly), June 2003–August 2003.
4. NIH salary support from the Genetics of Asthma Project (PI: Malcolm Blumenthal), 15% effort, co-PI, August 2003–May 2007.
5. NIH salary support from the Lymphoid Architecture Project (PI: Timothy Schacker), 10% effort, co-PI, August 2003–December 2007.
6. Statistical Methods in Cancer Control Epidemiology, (PI: Brad Carlin), 10% effort, co-PI, August 2003–July 2007.
7. NIH salary support from the Pathogenesis of HIV-Induced Immunity grant (PI: Ashley Haase), 10% effort, co-PI, April 2004–February 2009.
8. NIH salary support from the Genomic analysis of HIV-1 grant (PI: Ashley Haase), 10% effort, co-PI, Dec. 15, 2003–November 2008.
9. NIH salary support from the Antifibrotic Drug Discovery in Lung Disease grant (PI: Peter Bitterman), 5% effort, co-PI, April 1, 2004–February 2008.
10. NIH salary support from the Regulation of T lymphocyte mRNA grant (PI: Paul Bohjanen), 10% effort, co-PI, September 2002–May 2007.
11. Minnesota partnership funds from the Non-exercise induced thermogenesis grant (PI: Kathy Kotz), 10% effort, co-PI, July 2003–June 2005.
12. Topical Microbicide Against SIV and Chlamydia (PI: Dr. Ashley Haase), 5% effort, co-PI, September 2008–September 2010.
13. Protein Biomarkers in Lung Allograft Function (PI: Dr. Chris Wendt), 10% effort, co-PI, September 2008–September 2013.
14. Bronchoalveolar Lavage Cell Biomarkers of Lung Rejection (PI: Dr. Marshall Hertz), 10% effort, co-PI, September 2008–September 2010.
15. CTSI Education Pilot (PI: Dr. Terri Laguna), 5% effort, co-PI, January 2013–December 2014.
16. CTSI Education Pilot (PI: Dr. Robert Jones), 5% effort, co-PI, January 2013–December 2014.
17. A Compartmental Analysis of HIV Reservoirs and Immune Reconstitution (Program Director: Dr. Timothy Schacker PI of Biostatistics Core: Dr. Reilly), 38% effort, September 2008–August 2014.

18. Antifibrotic Therapy to Improve Lymph Node Architecture in SIV (PI: Dr. Timothy Schacker), 3.4% effort, co-PI, September 2010–August 2015.
19. Microarray Studies to Discover the Mechanisms of the delta-Nef SIV vaccine (PI: Dr. Ashley Haase), 10% effort, September 2010–August 2015.
20. Decay Kinetics of SIV with the compound Raltegravir (PI: Dr. Ashley Haase), 2.5% effort, co-PI, September 2011–August 2013.
21. Interactions Between Oral Biofilms (PI: Joel Rudney), 10% effort, co-PI, September 2011–August 2016.
22. Urinary Biomarkers in Biopsy Defined Early Nephropathy in Types 1 and 2 Diabetes (PI: Dr. Mark Mauer), 10% effort, co-PI, September 2009–October 2015.
23. Transcriptomics in the pariparturient Holstein (PI: Dr. Brian Crooker), 10% effort, co-PI, September 2014–October 2017.
24. Summer Institute for Biostatistics (PI: Dr. Cavan Reilly), 10% effort, April 2016–December 2018.
25. Clinical Research Training in Liberia (PI: Dr. Cavan Reilly), 3% effort, September 2017.
26. Calprotectin in oral innate immunity (PI: Dr. Mark Herzberg), 5% effort, November 2016–November 2019.
27. Reversing tissue fibrosis (PI: Timothy Schacker), 10% effort, February 2013–January 2018.

Teaching

Courses I have taught (at the University of Minnesota unless otherwise noted) include:

1. Introduction to Statistics (Columbia University, 1998–2000)
2. Biostatistics (2001–2002)
3. Statistics for Human Genetics and Molecular Biology (2003–2018)
4. Modern Nonparametrics (2003)
5. Bayesian Data Analysis and Decision Theory (2005–2011)
6. Advanced Statistics for Human Genetics (2014–2018)
7. Advanced Inference (2015)

In addition I have been the thesis advisor for 13 MS theses and 5 PhD dissertations. I have been the project advisor for 1 completed MPH. I have served on the PhD examining committee of 27 students (9 in Biostatistics, 4 in Statistics, 3 in Computer Science with the remainder being for students in various health science areas, such as Microbiology, Animal Science and Pharmacy).

I have also been actively involved with mentoring programs in the School of Medicine and the School of Public Health: I have been a mentor for 4 assistant professors on awarded training grants and I consult for an assistant professor on her awarded training grant.

PhD Advising

1. Yan Zhang, “Topics in Low Level Analysis of Microarrays”, September, 2006.

2. Xiaoyan Li, “Statistical Skeleton Estimation”, April, 2007.
3. Meijuan Li, “Statistical Methods for Genetics and Genomics Studies”, December, 2008.
4. Xiaoxiao Kong, “Statistical Methods in Genome Sequence Analysis”, September, 2011.
5. Kan Shang, “Bayesian methods for high dimensional longitudinal data analysis”, December, 2016.

Service

I serve as one of the cochairs of the new Data Science MS program at the University of Minnesota.

I have served on the following study sections:

1. NIH Special Emphasis Panel: HIV Clinical Trial Planning Grant Program
2. NIH Special Emphasis Panel: Sustained Release for Antiretroviral Treatment or Prevention of HIV Infection
3. HIV Special Emphasis Panel: Centers for AIDS Research
4. NIESH/NIH Special Emphasis Panel: Centers for Oceans and Public Health
5. NIH Clinical and Integrative Cardiovascular Sciences: ad hoc reviewer
6. NIH Clinical Cardiovascular Sciences: ad hoc reviewer
7. NIH Infectious Disease, Reproductive Health, Asthma and Pulmonary Health: ad hoc reviewer
8. Numerous clinical trial implementation grants for the NIH.

I have also provided written reviews of grants for the NSF and the Natural Sciences and Engineering Research Council of Canada.

I have also reviewed grants for multiple local grant sources sponsored by the AHC and the graduate school.

I have reviewed articles for the following journals: *The Journal of the American Statistical Association*, *Bioinformatics*, *Nature*, *Nucleic Acids Research*, *Statistics in Medicine*, *PLoS Computational Biology*, *PLoS Genetics*, *Molecular Human Genetics*, *Nature Medicine*, *Clinical Trials* and *Genetics in Medicine*.

I am a member of the editorial board for the BMC journals in the capacity as a statistical reviewer.

I am also a member of the editorial board of a new journal called “Statistical Communications in Infectious Diseases”.