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EDUCATION:

Ph.D.	University of Washington, Seattle, WA	(2003)	Biostatistics
M.S.	University of Washington, Seattle, WA	(1999)	Biostatistics
B.S.	University of Washington, Seattle, WA	(1996)	Psychology
	Brown University, Providence, RI	(1990 – 1992)	

PROFESSIONAL EXPERIENCE:

Mathematical Statistician, Division of Clinical Research, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD (2003 – Present)

Adjunct Faculty, Johns Hopkins University, Advanced Academic Programs, Rockville, MD (2008 – Present).

Research Statistician, Talaria Inc., Seattle, WA (1998 – 2003).

PUBLICATIONS:

1. Erin E Gabriel, Martha Nason, Michael P Fay, Dean A Follmann. A boundary-optimized rejection region test for the two-sample binomial problem. **Statistics in medicine**. (2017).
2. Stephen B Kennedy, Fatorma Bolay, Mark Kieh, Greg Grandits, Moses Badio, Ripley Ballou, Risa Eckes, Mark Feinberg, Dean Follmann, Birgit Grund, Swati Gupta, Lisa Hensley, Elizabeth Higgs, Krisztina Janosko, Melvin Johnson, Francis Kateh, James Logue, Jonathan Marchand, Thomas Monath, Martha Nason, Tolbert Nyenswah, François Roman, Eric Stavale, Julian Wolfson, James D Neaton, H Clifford Lane. Phase 2 placebo-controlled trial of two vaccines to prevent Ebola in Liberia. **New England Journal of Medicine** 377 (15), 1438-1447. (2017)
3. Jessica L Prodger, Jun Lai, Steven J Reynolds, Jeanne C Keruly, Richard D Moore, Jingo Kasule, Taddeo Kityamuweesi, Paul Buule, David Serwadda, Martha Nason, Adam A Capoferri, Stephen F Porcella, Robert F Siliciano, Andrew D Redd, Janet D Siliciano, Thomas C Quinn. Reduced Frequency of Cells Latently Infected with Replication-Competent HIV-1 in Virally Suppressed Individuals Living in Rakai, Uganda. **Clinical Infectious Diseases**, 65 (8), 1308-1315. (2017)

4. Emily E Coates, Pamela J Costner, Martha C Nason, Douglas M Herrin, Shielah Conant, Peter Herscovitch, Uzma N Sarwar, Lasonji Holman, Jillian Mitchell, Galina Yamshchikov, Richard A Koup, Barney S Graham, Corina M Millo, Julie E Ledgerwood, VRC 900 Study Team. Lymph Node Activation by PET/CT Following Vaccination With Licensed Vaccines for Human Papillomaviruses. **Clinical nuclear medicine** 42 (5), 329-334. (2017)
5. Kirsten E Lyke, Andrew S Ishizuka, Andrea A Berry, Sumana Chakravarty, Adam DeZure, Mary E Enama, Eric R James, Peter F Billingsley, Anusha Gunasekera, Anita Manoj, Minglin Li, Adam J Ruben, Tao Li, Abraham G Eappen, Richard E Stafford, KC Natasha, Tooba Murshedkar, Floreliz H Mendoza, Ingelise J Gordon, Kathryn L Zephir, LaSonji A Holman, Sarah H Plummer, Cynthia S Hendel, Laura Novik, Pamela JM Costner, Jamie G Saunders, Nina M Berkowitz, Barbara J Flynn, Martha C Nason, Lindsay S Garver, Matthew B Laurens, Christopher V Plowe, Thomas L Richie, Barney S Graham, Mario Roederer, B Kim Lee Sim, Julie E Ledgerwood, Stephen L Hoffman, Robert A Seder. Attenuated PfSPZ Vaccine induces strain-transcending T cells and durable protection against heterologous controlled human malaria infection. **Proceedings of the National Academy of Sciences**. 114 (10), 2711-2716. (2017).
6. Elizabeth S Higgs, Sheri A Dubey, Beth AG Collier, Jakub K Simon, Laura Bollinger, Robert A Sorenson, Barthalomew Wilson, Martha C Nason, Lisa E Hensley Accelerating Vaccine Development During the 2013–2016 West African Ebola Virus Disease Outbreak. **Curr Top Microbiol Immunol**. (2017).
7. James Pettitt, Elizabeth Higgs, Mosoka Fallah, Martha Nason, Eric Stavale, Jonathan Marchand, Cavan Reilly, Kenneth Jensen, Bonnie Dighero-Kemp, Kaylie Tuznik, James Logue, Fatorma Bolay, Lisa Hensley. Assessment and Optimization of the GeneXpert Diagnostic Platform for Detection of Ebola Virus RNA in Seminal Fluid. **Journal of Infectious Diseases** (2016).
8. Andrew S Ishizuka, Kirsten E Lyke, Adam DeZure, Andrea A Berry, Thomas L Richie, Floreliz H Mendoza, Mary E Enama, Ingelise J Gordon, Lee-Jah Chang, Uzma N Sarwar, Kathryn L Zephir, LaSonji A Holman, Eric R James, Peter F Billingsley, Anusha Gunasekera, Sumana Chakravarty, Anita Manoj, MingLin Li, Adam J Ruben, Tao Li, Abraham G Eappen, Richard E Stafford, KC Natasha, Tooba Murshedkar, Hope DeCederfelt, Sarah H Plummer, Cynthia S Hendel, Laura Novik, Pamela JM Costner, Jamie G Saunders, Matthew B Laurens, Christopher V Plowe, Barbara Flynn, William R Whalen, JP Todd, Jay Noor, Srinivas Rao, Kailan Sierra-Davidson, Geoffrey M Lynn, Judith E Epstein, Margaret A Kemp, Gary A Fahle, Sebastian A Mikolajczak, Matthew Fishbaugher, Brandon K Sack, Stefan HI Kappe, Silas A Davidson, Lindsey S Garver, Niklas K Björkström, Martha C Nason, Barney S Graham, Mario Roederer, B Kim Lee Sim, Stephen L Hoffman, Julie E Ledgerwood, Robert A Seder. Protection against malaria at 1 year and immune correlates following PfSPZ vaccination. **Nature Medicine**. (2016)
9. Michelle C Crank, Eleanor MP Wilson, Laura Novik, Mary E Enama, Cynthia S Hendel, Wenjuan Gu, Martha C Nason, Robert T Bailer, Gary J Nabel, Adrian B McDermott, John R Mascola, Richard A Koup, Julie E Ledgerwood, Barney S Graham, VRC012 Study Team. Safety and Immunogenicity of a rAd35-EnvA Prototype HIV-1 Vaccine in Combination with rAd5-EnvA in Healthy Adults (VRC 012). **PLOS one** (2016).
10. Kimberly A Dowd, Sung-Youl Ko, Kaitlyn M Morabito, Eun Sung Yang, Rebecca S Pelc, Christina R DeMaso, Leda R Castilho, Peter Abbink, Michael Boyd, Ramya Nityanandam, David N Gordon, John Robert Gallagher, Xuejun Chen, John-Paul Todd, Yaroslav Tsybovsky, Audrey

- Harris, Yan-Jang S Huang, Stephen Higgs, Dana L Vanlandingham, Hanne Andersen, Mark G Lewis, Rafael De La Barrera, Kenneth H Eckels, Richard G Jarman, Martha C Nason, Dan H Barouch, Mario Roederer, Wing-Pui Kong, John R Mascola, Theodore C Pierson, Barney S Graham. Rapid development of a DNA vaccine for Zika virus. **Science** (2016).
11. Rajeev Gautam, Yoshiaki Nishimura, Amarendra Pegu, Martha C Nason, Florian Klein, Anna Gazumyan, Jovana Golijanin, Alicia Buckler-White, Reza Sadjadpour, Keyun Wang, Zachary Mankoff, Stephen D Schmidt, Jeffrey D Lifson, John R Mascola, Michel C Nussenzweig, Malcolm A Martin. A single injection of anti-HIV-1 antibodies protects against repeated SHIV challenges. **Nature** (2016).
 12. Martha C Nason, Eshan U Patel, Allison R Kirkpatrick, Jessica L Prodger, Kamnoosh Shahabi, Aaron AR Tobian, Sara Gianella, Sarah Kalibbala, Paschal Ssebbowa, Rupert Kaul, Ronald H Gray, Thomas C Quinn, David Serwadda, Steven J Reynolds, Andrew D Redd. Immunological Signaling During Herpes Simplex Virus-2 and Cytomegalovirus Vaginal Shedding After Initiation of Antiretroviral Treatment. **Open forum infectious diseases** (2016).
 13. Stephen B Kennedy, James D Neaton, H Clifford Lane, Mark WS Kieh, Moses BF Massaquoi, Nancy A Touchette, Martha C Nason, Dean A Follmann, Fatorma K Boley, Melvin P Johnson, Gregg Larson, Francis N Kateh, Tolbert G Nyenswah. Implementation of an Ebola virus disease vaccine clinical trial during the Ebola epidemic in Liberia: Design, procedures, and challenges. **Clinical Trials: Journal of the Society for Clinical Trials** (2016).
 14. Nason, Martha. Statistics and logistics: Design of Ebola vaccine trials in West Africa. **Clinical Trials: Journal of the Society for Clinical Trials**. (2016)
 15. Diane L Bolton, Amarendra Pegu, Keyun Wang, Kathleen McGinnis, Martha Nason, Kathryn Foulds, Valerie Letukas, Stephen D Schmidt, Xuejun Chen, John Paul Todd, Jeffrey D Lifson, Srinivas Rao, Nelson L Michael, Merlin L Robb, John R Mascola, Richard A Koup. Human immunodeficiency virus type 1 monoclonal antibodies suppress acute simian-human immunodeficiency virus viremia and limit seeding of cell-associated viral reservoirs. **Journal of Virology** (2016).
 16. Huang, Yunda; Karuna, Shelly T; Janes, Holly; Frahm, Nicole; Nason, Martha; Edlefsen, Paul T; Kublin, James G; Corey, Lawrence; McElrath, M Juliana; Gilbert, Peter B; Use of placebos in Phase 1 preventive HIV vaccine clinical trials. **Vaccine**, 2015. 33(6) 749-752.
 17. Lynch, Rebecca M; Wong, Patrick; Tran, Lillian; O'Dell, Sijy; Nason, Martha C; Li, Yuxing; Wu, Xueling; Mascola, John R; HIV-1 fitness cost associated with escape from the VRC01 class of CD4 binding site neutralizing antibodies. **Journal of virology** (2015). 89 (8) 4201-4213.
 18. Laeyendecker, Oliver; Redd, Andrew D; Nason, Martha; Longosz, Andrew F; Karim, Quarraisha Abdool; Naranbhai, Vivek; Garrett, Nigel; Eshleman, Susan H; Karim, Salim S Abdool; Quinn, Thomas C; Antibody Maturation in Women who Acquire HIV Infection While Using Antiretroviral Pre-Exposure Prophylaxis. **Journal of Infectious Diseases** (2015).
 19. Francica, Joseph R; Sheng, Zizhang; Zhang, Zhenhai; Nishimura, Yoshiaki; Shingai, Masashi; Ramesh, Akshaya; Keele, Brandon F; Schmidt, Stephen D; Flynn, Barbara J; Darko, Sam; Analysis of immunoglobulin transcripts and hypermutation following

SHIVAD8 infection and protein-plus-adjuvant immunization. *Nature Communications* (2015). 6.

20. Huang, Yunda; Follmann, Dean; Nason, Martha; Zhang, Lily; Huang, Ying; Mehrotra, Devan V; Moodie, Zoe; Metch, Barbara; Janes, Holly; Keefer, Michael C; Churchyard, Gavin; Robb, Merlin L; Fast, Patricia E; Duerr, Ann M; McElrath, M Juliana; Corey, Lawrence; Mascola, John R; Graham, Barney S; Sobieszczyk, Magdalena E; Kublin, James G; Robertson, Michael; Hammer, Scott M; Gray, Glenda E; Buchbinder, Susan P; Gilbert, Peter B. Effect of rAd5-Vector HIV-1 Preventive Vaccines on HIV-1 Acquisition: A Participant-Level Meta-Analysis of Randomized Trials. **PLOSOne**. (2015)
21. Bolton, Diane L; Pegu, Amarendra; Wang, Keyun; McGinnis, Kathleen; Nason, Martha;
22. Foulds, Kathryn; Letukas, Valerie; Schmidt, Stephen D; Chen, Xuejun; Todd, John Paul; HIV-1 monoclonal antibodies suppress acute SHIV viremia and limit seeding of cell-associated viral reservoirs. *Journal of Virology* (2015).
23. Siddiqui S, Sarro Y, Diarra B, Diallo H, Guindo O, Dabita D, Tall M, Hammond A, Kassambara H, Goita D, Dembele P, Traore B, Hengel R, Nason M, Warfield J, Washington J, Polis M, Diallo S, Dao S, Koita O, Lane HC, Catalfamo M, Tounkara A. *Clin Immunol*. 2015 Jul;159(1):1-12.
24. Ngwuta, Joan O. and Chen, Man and Modjarrad, Kayvon and Joyce, M. Gordon and Kanekiyo, Masaru and Kumar, Azad and Yassine, Hadi M. and Moin, Syed M. and Killikelly, April M. and Chuang, Gwo-Yu and Druz, Aliaksandr and Georgiev, Ivelin S. and Rundlet, Emily J. and Sastry, Mallika and Stewart-Jones, Guillaume B. E. and Yang, Yongping and Zhang, Baoshan and Nason, Martha C. and Capella, Cristina and Peoples, Mark E. and Ledgerwood, Julie E. and McLellan, Jason S. and Kwong, Peter D. and Graham, Barney S. *Prefusion-specific antibodies determine the magnitude of RSV neutralizing activity in human sera*. **Science Translational Medicine**, 2015. 7 (309)
25. Pegu, A; Yang, Z-Y; Boyington, JC; Wu, L; Ko, S-Y; Schmidt, SD; McKee, K; Kong, W-P; Shi, W; Chen, XTodd, J-P; Letvin, NL; Huang, J; Nason, MC; Hoxie, JA; Kwong, PD; Connors, M; Rao, SS; Mascola, JR; Nabel, G.. Neutralizing antibodies to HIV-1 envelope protect more effectively in vivo than those to the CD4 receptor. **Science Translational Medicine**. 2014.
26. Rudicell, RS; Do Kwon, Y; Ko, S-Y; Pegu, A; Louder, MK; Georgiev, IS; Wu, X; Zhu, J; Boyington, JC; Chen, X; Shi, W; Yang, Z-Y; Doria-Rose, NA; McKee, K; O'Dell, S; Schmidt, SD; Chuang, GY; Druz, A; Soto, C; Yang, Y; Zhang, B; Zhou, T; Todd, J-P; Lloyd, KE; Eudailey, J; Roberts, KE; Donald, BR; Bailer, RT; Ledgerwood, J; Mullikin, JC; Shapiro, L; Koup, RA; Graham, BS; Nason, MC; Connors, M; Haynes, BF; Rao, SS; Roederer, M; Kwong, PD; Mascola, JR; Nabel, GJ. Enhanced potency of a broadly neutralizing HIV-1 antibody in vitro improves protection against lentiviral infection in vivo. **Journal of virology**. 2014
27. Herrin, D; Coates, E; Costner, P; Kemp, T; Nason, M; Saharia, K; Pan, D; Sarwar, U; Holman, L; Yamshchikov, G. Comparison of Adaptive and Innate Immune Responses Induced by Licensed Vaccines for Human Papillomavirus. **Human vaccines & immunotherapeutics**. 2014.

29. Nishimura, Y; Shingai, M; Donau, OK; Plishka, RJ; Buckler-White, A; Mascola, JR; Nabel, GJ; Nason, MC; Montefiori, D; Moldt, B. Preexposure passive transfer predicts plasma antibody levels prevent HIV-1 acquisition. **Journal of Medical Primatology**. 2014.
30. Huang, Y; Karuna, ST; Janes, H; Frahm, N; Nason, M; Edlefsen, PT; Kublin, JG; Corey, L; McElrath, MJ; Gilbert, PB. "Use of Placebos in Phase 1 Preventative HIV Vaccine Clinical Trials. **Vaccine**. 2014.
31. Ko, S-Y; Pegu, A; Rudicell, R; Yang, Z-Y; Joyce, MG; Chen, X; Wang, K; Bao, S; Kraemer, T; Rath, T; Zeng, M; Schmidt, S; Todd, JP; Penzak, S; Saunders, K; Nason, M; Haase, A; Rao, S; Blumberg, R; Mascola, J; Nabel, G. "Enhanced neonatal Fc receptor function improves protection against SHIV infection in monkeys". **Nature**. 2014.
32. Roederer, M; Keele, BF; Schmidt, SD; Mason, RD; Welles, HC; Fischer, W; Labranche, C; Foulds, KE; Yang, Z; Todd, JM; Buzby, AP; Mach, LV; Shen, L; Seaton, KE; Ward, BM; Bailer, RT; Gottardo, R; Gu, W; Ferrari, G; Alam, SM; Denny, TN; Montefiori, DC; Tomaras, GD; Korber, BT; Nason, M; Seder, RA; Koup, RA; Letvin, NL; Rao, SS; Nabel, GJ; Mascola, JR. "Immunological and Virological Mechanisms of Vaccine-Mediated Protection Against SIV and HIV", **Nature**. 2014
33. Sandler, NG; Bosinger, SE; Estes, JD; Zhu, RTR; Tharp, GK; Boritz, E; Levin, D; Wijeyesinghe, S; Makamdop, KN; del Prete, GQ; Hill, BJ; Timmer, JK; Reiss, E; Darko, S; Contijoch, E; Todd, JP; Silvestri, G; Nason, M; Norgren, RB Jr; Keele, BF; Rao, S; Langer, JA; Lifson, JD; Schreiber, G; Douek, DC. "Type I IFN responses in rhesus macaques prevent SIV transmission and slow disease progression" **Nature**. 2014.
34. Sarwar, UN; Novik, L; Enama, ME; Plummer, SA; Koup, RA; Nason, MC; Bailer, RT; McDermott AB; Roederer, R; Mascola, J; Ledgerwood, JE; Graham, BS. "Homologous boosting with adenoviral serotype 5 HIV vaccine (rAd5) vector can boost antibody responses despite preexisting vector-specific immunity in a randomized phase I clinical trial". **PLOS One**. 2014.
35. Enama, ME; Ledgerwood, JE; Novik, L; Nason, MC; Gordon, IJ; Holman, L; Bailer, RT; Roederer, M; Koup, RA; Mascola, JR; Nabel, GJ; Graham, BS; and the VRC 011 Study Team. Phase I Randomized Clinical Trial of VRC DNA and rAd5 HIV-1 Vaccine Delivery by Intramuscular (IM), Subcutaneous (SC) and Intradermal (ID) Administration (VRC 011). **PLOS One**. 2014.
36. Shingai, M; Donau, OK; Plishka, RJ; Buckler-White, A; Mascola, JR; Nabel, GJ; Nason, MC; Montefiori, D; Moldt, B; Poignard, P; Passive transfer of modest titers of potent and broadly neutralizing anti-HIV monoclonal antibodies block SHIV infection in macaques. **Journal of Experimental Medicine**. 2014.
37. Wentzensen, N; Nason, M; Schiffman, M; Dodd, L; Hunt, WC; Wheeler, CM. No evidence for synergy between human papillomavirus genotypes for risk of HSIL in a large population-based study. **Journal of Infectious Diseases**. 2013.
38. Georgiev, IS; Doria-Rose, NA; Zhou, Tongqing; D; Kwon, Y; Staupe, RP; Moquin, S; Chuang, G; Louder, MK; Schmidt, SD; Altae-Tran, HR; Bailer, RT; McKee, K; Nason, M; O'Dell, S; Ofek, G; Pancera, M; Srivatsan, S; Shapiro, L; Connors, M; Migueles, SA; Morris, L; Nishimura, Y;

- Martin, MA; Mascola, JR; Kwong, PD. Delineating antibody recognition in polyclonal sera from patterns of HIV-1 isolate neutralization. **Science**. 2013.
39. Seder, RA; Chang, L; Enama, ME; Zephir, KL; Sarwar, UN; Gordon, IJ; Holman, LA; James, ER; Billingsley, PF; Gunasekera, A; Richman, A; Chakravarty, S; Manoj, A; Velmurugan, S; Li, M; Ruben, AJ; Li, T; Eappen, AG; Stafford, RE; Plummer, SH; Hendel, CS; Novik, L; Costner, PJ; Mendoza, FH; Saunders, JG; Nason, MC; Richardson, JH; Murphy, J; Davidson, SA; Richie, TL; Sedegah, M; Sutamihardja, A; Fahle, GA; Lyke, KE; Laurens, MB; Roederer, M; Tewari, K; Epstein, JE; Sim, BK; Ledgerwood, JE; Graham, BS; Hoffman, SL. Protection Against Malaria by Intravenous Immunization with a Nonreplicating Sporozoite Vaccine. **Science**. 2013.
 40. Casazza, JP; Bowman, K; Adzaku, S; Smith, EC; Enama, ME; Bailer, RT; Price, DA; Gostick, E; Gordon, I; Ambrozak, DR; Nason, MC; Roederer, M; Andrews, CA; Maldarelli, FM; Wiegand, A; Kearney, MF; Persaud, D; Ziemniak, C; Gottardo, R; Ledgerwood, JE; Graham, BS; Koup, RA. Therapeutic Vaccination Expands and Improves the Function of the HIV-specific Memory T Cell Repertoire. **Journal of Infectious Diseases**, 2013.
 41. Graham, BS; Enama, ME; Nason, MC; Gordon, IJ; Peel, SA; Ledgerwood, JE; Plummer, SA; Mascola, JR; Bailer, RT; Roederer, M. DNA Vaccine Delivered by a Needle-Free Injection Device Improves Potency of Priming for Antibody and CD8+ T-Cell Responses after rAd5 Boost in a Randomized Clinical Trial. **PLoS one**. 2013; 8(4).
 42. Mahnke, YD; Song, K; Sauer, MM; Nason, MC; Giret, MTM; Carvalho, KI; Costa, PR; Roederer, M; Kallás, EG. Early immunologic and virologic predictors of clinical HIV-1 disease progression. **AIDS**. 2013; 27(5).
 43. Nabel, GJ; Wu, X; Yang, ZY; Li, Y; Hogerkorp, CM; Schief, WR; Seaman, MS; Zhou, T; Schmidt, SD; Wu, L; Xu, L; Longo, NS; McKee, K; O'Dell, S; Louder, MK; Wycuff, DL; Feng, Y; Nason, M; Doria-Rose, N; Connors, M; Roederer, M; Kwong, PD; Mascola, JR 126 Broadly Neutralizing HIV Abs: Gains and Losses in Translation. **Journal of Acquired Immune Deficiency Syndromes**. 2012; 59.
 44. Cheng C, Wang L, Gall JG, Nason M, Schwartz RM, McElrath MJ, DeRosa SC, Hural J, Corey L, Buchbinder SP, Nabel GJ. Decreased pre-existing Ad5 capsid and Ad35 neutralizing antibodies increase HIV-1 infection risk in the Step trial independent of vaccination. **PLoS One**. 2012; 7(4).
 45. Yamamoto T, Johnson MJ, Price DA, Wolinsky DI, Almeida JR, Petrovas C, Nason M, Yeh WW, Shen L, Roederer M, Rao SS, McDermott AB, Lefebvre F, Nabel GJ, Haddad EK, Letvin NL, Douek DC, Koup RA. Virus Inhibition Activity of Effector Memory CD8+ T Cells Determines Simian Immunodeficiency Virus Load in Vaccinated Monkeys after Vaccine Breakthrough Infection. **Journal of Virology**. 2012; 86(10).
 46. Doria-Rose NA, Louder MK, Yang Z, O'Dell S, Nason M, Schmidt SD, McKee K, Seaman MS, Bailer RT, Mascola JR. HIV-1 neutralization coverage is improved by combining monoclonal antibodies that target independent epitopes. **Journal of Virology**. 2012; 86(6).
 47. Follmann D, Nason M. An augmented probit model for missing predictable covariates in quantal bioassay with small sample size. **Biometrics**. 2011;67(3).

48. Yamamoto T, Price DA, Casazza JP, Ferrari G, Nason M, Chattopadhyay PK, Roederer M, Gostick E, Katsikis PD, Douek DC, Haubrich R, Petrovas C, Koup RA. *Surface expression patterns of negative regulatory molecules identify determinants of virus-specific CD8+ T-cell exhaustion in HIV infection.* **Blood.** 2011; 117(18).
49. Ledgerwood JE, Pierson TC, Hubka SA, Desai N, Rucker S, Gordon IJ, Enama ME, Nelson S, Nason M, Gu W, Bundrant N, Koup RA, Bailer RT, Mascola JR, Nabel GJ, Graham BS; the VRC 303 Study Team. *A West Nile Virus DNA Vaccine Utilizing a Modified Promoter Induces Neutralizing Antibody in Younger and Older Healthy Adults in a Phase I Clinical Trial.* **Journal of Infectious Diseases.** 2011;203(10).
50. Sandler NG, Wand H, Roque A, Law M, Nason MC, Nixon DE, Pedersen C, Ruxrungtham K, Lewin SR, Emery S, Neaton JD, Brenchley JM, Deeks SG, Sereti I, Douek DC, INSIGHT SMART Study Group. *Plasma levels of soluble CD14 independently predict mortality in HIV infection.* **Journal of Infectious Diseases.** 2011;203(6).
51. Roederer M, Nozzi JL, Nason MC. *SPICE: exploration and analysis of post-cytometric complex multivariate datasets.* **Cytometry A.** 2011;79(2).
52. Proschan M. and Nason M. *A Note on Correction of Information Time in a Survival Trial Using a Spending Function.* **Statistics in Biosciences,** 2011 .
53. Chen M, Chang JS, Nason M, Rangel D, Gall JG, Graham BS, Ledgerwood JE. *A flow cytometry-based assay to assess RSV-specific neutralizing antibody is reproducible, efficient and accurate.* **Journal of Immunological Methods.** 2010;362(1-2).
54. Nason M and Follmann D. *Design and analysis of crossover trials for absorbing binary endpoints.* **Biometrics.** 2010; 66.
55. Koup RA, Roederer M, Lamoreaux L, Fischer J, Novik L, Nason MC, Larkin BD, Enama ME, Martin JE, Bailer RT, Mascola JR, Nabel GJ, Graham BS, and the VRC 009 and VRC 010 Study Teams. *Priming immunization with DNA augments immunogenicity of recombinant adenoviral vectors for both HIV-1 specific antibody and T-cell responses.* **PLoS ONE.** 2010; 5(2).
56. Cheng C, Gall JG, Nason MC, King CR, Koup RA, Roederer M, McElrath MJ, Morgan CA, Baden L, Churchyard G, Keefer MC, Duerr A, Graham BS, Nabel GJ. *Differential specificity and immunogenicity of adenovirus 5 neutralizing antibodies elicited by natural infection or immunization.* **Journal of Virology.** 2010; 84.
57. Wu X, Yang ZY, Li Y, Hogerkorp CM, Schief WR, Seaman MS, Zhou T, Schmidt SD, Wu L, Xu L, Longo NS, McKee K, O'Dell S, Louder MK, Wycuff DL, Feng Y, Nason M, Doria-Rose N, Connors M, Kwong PD, Roederer M, Wyatt RT, Nabel GJ, Mascola JR. *Rational design of envelope identifies broadly neutralizing human monoclonal antibodies to HIV-1.* **Science.** 2010;329(5993).
58. Hersperger AR, Pereyra F, Nason M, Demers K, Sheth P, Shin LY, Kovacs CM, Rodriguez B, Sieg SF, Teixeira-Johnson L, Gudonis D, Goepfert PA, Lederman MM, Frank I, Makedonas G, Kaul R, Walker BD, Betts MR. *Perforin expression directly ex vivo by HIV-specific CD8 T-cells is a correlate of HIV elite control.* **PLoS Pathogenesis.** 2010;6(5).

59. Rao SS, Kong WP, Wei CJ, Van Hoeven N, Gorres JP, Nason M, Andersen H, Tumpey TM, Nabel GJ. *Comparative efficacy of hemagglutinin, nucleoprotein, and matrix 2 protein gene-based vaccination against H5N1 influenza in mouse and ferret.* **PLoS One.** 2010;5(3).
60. Doria-Rose NA, Klein RM, Daniels MG, O'Dell S, Nason M, Lapedes A, Bhattacharya T, Migueles SA, Wyatt RT, Korber BT, Mascola JR, Connors M. *Breadth of human immunodeficiency virus-specific neutralizing activity in sera: clustering analysis and association with clinical variables.* **Journal of Virology.** 2010;84(3).
61. Willey R, Nason MC, Nishimura Y, Follmann DA, Martin MA. *Neutralizing antibody titers conferring protection to macaques from a simian/human immunodeficiency virus challenge using the TZM-bl assay.* **AIDS Res Hum Retroviruses.** 2010;26(1).
62. Price DA, Asher TE, Wilson NA, Nason MC, Brenchley JM, Metzler IS, Venturi V, Gostick E, Chattopadhyay PK, Roederer M, Davenport MP, Watkins DI, Douek DC. *Public clonotype usage identifies protective Gag-specific CD8+ T cell responses in SIV infection.* **Journal of Experimental Medicine.** 2009;206(4).
63. Doria-Rose N, Klein R, Manion M, O'Dell S, Phogat A, Chakrabarti B, Hallahan C, Migueles S, Wrammert J, Ahmed R, Nason M, Wyatt R, Mascola J, and Connors M. *Frequency and Phenotype of HIV Envelope-specific B Cells From Patients With Broadly Cross-Neutralizing Antibodies.* **Journal of Virology.** 2008.
64. Sheets RL, Stein J, Bailer RT, Koup RA, Andrews C, Nason M, He B, Koo E, Trotter H, Duffy C, Manetz TS, Gomez P. *Biodistribution and toxicological safety of adenovirus type 5 and type 35 vectored vaccines against human immunodeficiency virus-1 (HIV-1), Ebola, or Marburg are similar despite differing adenovirus serotype vector, manufacturer's construct, or gene inserts.* **Journal of Immunotoxicology.** 2008; 5(3).
65. Rao S, Kong W, Wei C, Yang Z, Nason M, Styles D, DeTolla L, Sorrell E, Song H, Wan H, Ramirez-Nieto G, Perez D, Nabel G. *Multivalent HA DNA Vaccination Protects against Highly Pathogenic H5N1 Avian Influenza Infection in Chickens and Mice.* **PLoS ONE.** 2008; 3(6).
66. Martin JE, Louder MK, Holman LA, Gordon IJ, Enama ME, Larkin BD, Andrews CA, Vogel L, Koup RA, Roederer M, Bailer RT, Gomez PL, Nason M, Mascola JR, Nabel GJ, Graham BS; the VRC 301 Study Team. *A SARS DNA vaccine induces neutralizing antibody and cellular immune responses in healthy adults in a Phase I clinical trial.* **Vaccine.** 2008;26(50).
67. Wu X, Sambor A, Nason M, Yang Z, Wu L, Zolla-Pazner S, Nabel G, Mascola J. *Soluble CD4 broadens neutralization of V3-directed monoclonal antibodies and 2 guinea pig vaccine sera against HIV-1 subtype B and C reference viruses.* **Virology,** 2008; 380(2).
68. Proschan M and Nason M. *Conditioning in 2x2 Tables.* **Biometrics.** 2008.
69. Martin JE, Pierson TC, Hubka S, Rucker S, Gordon IJ, Enama ME, Andrews CA, Xu Q, Davis BS, Nason M, Fay M, Koup RA, Roederer M, Bailer RT, Gomez PL, Mascola JR, Chang GJ, Nabel GJ, Graham BS. *A West Nile virus DNA vaccine induces neutralizing antibody in healthy adults during a phase 1 clinical trial.* **Journal of Infectious Disease.** 2007; 196(12).
70. Geldmacher, C., Gray, C., Nason, M., Currier, J. R., Haule, A., Njovu, L., Geis, S., Hoffmann, O., Maboko, L., Meyerhans, A., Cox, J., Hoelscher, M. *A High Viral Burden Predicts the Loss of CD8 T-Cell Responses Specific for Subdominant Gag Epitopes during Chronic Human Immunodeficiency Virus Infection.* **Journal of Virology.** 2007; 81.

71. Elloumi F, Nason M. *SEARCHPATTOOL: a new method for mining the most specific frequent patterns for binding sites with application to prokaryotic DNA sequences*. **BMC Bioinformatics**. 2007; 8:354.
72. Catanzaro AT, Roederer M, Koup RA, Bailer RT, Enama ME, Nason MC, Martin JE, Rucker S, Andrews CA, Gomez PL, Mascola JR, Nabel GJ, Graham BS; The VRC 007 Study Team. *Phase I clinical evaluation of a six-plasmid multiclade HIV-1 DNA candidate vaccine*. **Vaccine**. 2007; 25(20).
73. Seggewiss, R; Lorin, K; Guenaga, FJ; Pittaluga, S; Mattapallil, J; Chow, CK; Koup, RA; Camphausen, K; Nason, M; Meier-Schellersheim, M; Donahue, RE; Blazar, BR; Dunbar, CE; Douek, DC. *Keratinocyte growth factor augments immune reconstitution after autologous hematopoietic progenitor cell transplantation in rhesus macaques*. **Blood**. 2007.
74. Nason M. *Patterns of Immune Response to a Vaccine or Virus as Measured by Intracellular Cytokine Staining in Flow Cytometry: Hypothesis Generation and Comparison of Groups*. **Journal of Biopharmaceutical Statistics**. 2006; 16(4).
75. Read SW; Higgins J; Metcalf JA.; Stevens RA.; Rupert A; Nason, MC.; Lane, HC; Sereti, I. *Decreased CD127 Expression on T Cells in HIV-1-infected Adults Receiving Antiretroviral Therapy With or Without Intermittent IL-2 Therapy*. **Journal of Acquired Immune Deficiency Syndromes**. 2006; 42(5).
76. Betts MR, Nason MC, West SM, De Rosa SC, Migueles SA, Abraham J, Lederman MM, Benito JM, Goepfert PA, Connors M, Roederer M, Koup RA. *HIV nonprogressors preferentially maintain highly functional HIV-specific CD8+ T cells*. **Blood**. 2006; 107(12).
77. Sheets, RL.; Stein, J; Manetz, TS; Duffy C; Nason, M; Andrews, C; Kong, W; Nabel, GJ; Gomez, PL. *Biodistribution of DNA Plasmid Vaccines against HIV-1, Ebola, Severe Acute Respiratory Syndrome, or West Nile Virus Is Similar, without Integration, despite Differing Plasmid Backbones or Gene Inserts*. **Toxicological Sciences**. 2006; 91(2).
78. Higgins, J; Metcalf, JA; Stevens, RA; Baseler, M; Nason, MC; Lane, HC and Sereti, I. *Effects of Lymphocyte Isolation and Timing of Processing on Detection of CD127 Expression on T Cells in Human Immunodeficiency Virus-Infected Patients*. **Clinical and Diagnostic Laboratory Immunology**. 2005; 12(1).
79. Nason, M., Emerson, S., and LeBlanc, M. *CARTScans: A Tool for Visualizing Complex Models*. **Journal of Computational and Graphical Statistics**. 2004; 13(4).
80. Madigan, D., Raghavan, N., DuMouchel, W., Nason, M., Posse, C., and Ridgeway, G. *Likelihood-based data squashing: A modeling approach to instance construction*. **Journal of Data Mining and Knowledge Discovery**. 2001.
81. Schaffner, A.; Madigan, D.; Hunt, E.; Graf, E.; Minstrell, J.; and Nason, M. *Benchmark Lessons and the World Wide Web: Tools for Teaching Statistics*. In D. Edelson and E. Domeshek (eds.) *Proceedings of ICLS 96*. Association for the Advancement of Computing in Education. 1996.

CONTRIBUTIONS TO BOOK CHAPTERS:

1. Ebola Vaccine Trials. In *Marburg- and Ebolaviruses: From Ecosystems to Molecules*. Mühlberger, Elke, Hensley, Lisa L., Towner, Jonathan S. (Eds.). **Springer**. (2017)
2. Madigan, D. and Nason, M. Sampling Techniques & Statistics Perspectives on Data and Knowledge. In *Handbook of Knowledge Discovery and Data Mining*, Oxford University Press; 2003.

INVITED PRESENTATIONS:

NIAID Zika Virus Therapeutics Workshop . "Clinical trial considerations for Prophylactics" and "Clinical trial considerations for Therapeutics" (2017)

Moderna Pharmaceuticals on Correlates of Immunity and the Animal Rule (2017)

Society for Clinical Trials "Statistics, logistics, and optics: design of Ebola vaccine trials in West Africa." (2015)

Joint Statistical Meetings "The Statistical Landscape of Infectious Disease" (2014)

Joint Statistical Meetings. "Design and analysis of crossover trials for absorbing binary endpoints" (2011)

ENAR Annual Meeting. "Characterizing Immune Responses via Flow Cytometry." (2009)

WNAR Annual Meeting. "Defining Immune Responses using Intracellular Cytokine Staining: Pitfalls and Possibilities". (2008)

ENAR Annual Meeting ." Investigating Associations between Functional Patterns of Immune Response to HIV and Disease Progression" (2006)

PROFESSIONAL SERVICE:

Member, Data Safety Monitoring Board for Immunotherapeutics for HIV Disease, American Gene Therapeutics (2017 – Present)

Working Group Member, World Health Organization Blueprint working group on Vaccine Trial Designs during Public Health Emergencies (2016 - Present)

Primary Member, NIAID Institutional Review Board (IRB) (2014-Present)

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Reviewer, *Trials; Journal of Immunological Methods; BMC Bioinformatics; Cytometry; Statistics in Medicine; Vaccine* (2007 - Present)

Member, Safety Monitoring Committee, AERAS Global TB Vaccine Foundation (2004)

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Graduate Research Fellow, National Science Foundation (1997 – 2000)

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