

MARTHA NASON

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Biostatistics Research Branch
Division of Clinical Research
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EDUCATION:

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

PROFESSIONAL EXPERIENCE:

1995 – 1996	Research Assistant, Department of Psychology University of Washington, Seattle, WA <i>Ran subjects for cognitive psychology experiment</i>
1995	Research Assistant, Department of Statistics, University of Washington, Seattle, WA <i>Created obstetric case study for class on decision making</i>
1996 - 1998	Research Assistant, Cardiovascular Health Study, Seattle, WA <i>Worked on data analysis and quality control of large multi-center observational study</i>
1997 - 1999	Teaching Assistant, Department of Biostatistics, University of Washington, Seattle, WA <i>Teaching Assistant for Doctorate level applied statistics classes and Masters level categorical data analysis, among others</i>
1998 - 2003	Research Statistician, Talaria Inc., Seattle, WA <i>Worked on design of NIH-funded software for Bayesian Analysis of Clinical Trials (iBART), grant proposals and submissions, and planning, analysis and reporting to FDA of Bayesian analysis of multi-center medical device clinical trial</i>
2003 - present	Mathematical Statistician, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD
2008 - present	Affiliate Faculty, Johns Hopkins University, Advanced Academic Programs, Rockville, MD. <i>Teach an introductory Biostatistics course to Graduate students in Biotechnology.</i>

HONORS:

1994 - 1996	Annual Dean’s List, University of Washington
1995 - 1996	Undergraduate Merit Scholarship, University of Washington
1996	Magna Cum Laude Graduate, University of Washington
1996	Distinction in Psychology, University of Washington
1997 - 2000	Graduate Research Fellow, National Science Foundation

PUBLICATIONS:

- Nason M and Follmann D. "Crossover trial designs for absorbing binary endpoints". Under revision at *Biometrics*.
- Proschan M. and Nason M. "A Note on Correction of Information Time in a Survival Trial Using a Spending Function". Submitted to *Statistics in Medicine*.
- Graham BS, Koup RA, Roederer M, Novik L, Nason MC, Larkin BD, Enama ME, Martin JE, Bailer RT, Mascola JR, Nabel GJ and the VRC 009 and VRC 010 Study Teams. "Sequential Immunization with a Heterologous Combination of DNA and Recombinant Adenoviral Vectors Induces Polyfunctional HIV-1 Specific T-Cell Responses". Under revision for *Journal of Clinical Investigation*.
- Cheng C, Gall JGD, Nason M, King CR, Koup RA, Roederer M, McElrath MJ, Morgan CA, Churchyard G, Keefer MC, Graham BS, Nabel JG. "Differential specificity and immunogenicity of adenovirus 5 neutralizing antibodies elicited by natural infection or immunization". Submitted to *Nature Medicine*.
- 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". *J Virol*. 2008 Oct 15. [Epub ahead of print]
- 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." *J Immunotoxicol*. 2008 Jul;5(3):315-35.
- 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. 18 June 2008 Multivalent HA DNA Vaccination Protects against Highly Pathogenic H5N1 Avian Influenza Infection in Chickens and Mice. *PLoS ONE*, 2008, 3(6).
- 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 Nov 25;26(50):6338-6343
- 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 Oct 25; 380(2):285-95.
- Proschan M and Nason M. "Conditioning in 2x2 Tables". *Biometrics*, 23 May 2008.
- 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*, 15 Dec 2007, 196(12): 1732-40.

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. (2007). A High Viral Burden Predicts the Loss of CD8 T-Cell Responses Specific for Subdominant Gag Epitopes during Chronic Human Immunodeficiency Virus Infection. *J. Virol.* 81: 13809-13815

Eloumi 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*, 20 September 2007, 8:354

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 May 16;25(20):4085-92. Epub 2007 Mar 7.

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 First Edition Paper, prepublished online March 20, 2007; DOI 10.1182/blood-2006-12-065623 *Blood*, 20 March 2007, Vol. 0, No. 2007, pp. 200612065.

Price DA, Asher TE, Wilson NA, Nason MC, Brenchley JM, Venturi V, Watkins DI, Davenport MP, Douek DC (2007). Public clonotype usage in virus-specific CD8+ T cell populations: mechanisms of TCR sharing and biological implications. In: Program and Abstracts of the Keystone Symposium on Immunological Memory [p92; abstract 311], Santa Fe, New Mexico, USA.

Price DA, Asher TE, Wilson NA, Nason MC, Brenchley JM, Venturi V, Davenport MP, Watkins DI, Douek DC (2006). Clonotypic correlates of protective vaccine-induced CD8 T cell responses. In: Program and Abstracts of the Chinese Academy of Sciences Morningside Symposium on Primate Research, Kunming, Yunnan, China.

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*, Vol. 16, No. 4. (August 2006), pp. 483-498.

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." *JAIDS Journal of Acquired Immune Deficiency Syndromes*. 2006; 42(5):537-544.

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 Jun 15;107(12):4781-9. Epub 2006 Feb 7.

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*, Volume 91, Number 2, June 2006 , pp. 610-619

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*, January 2005, 228-230, 12 (1)

Nason, M., Emerson, S., and LeBlanc, M. (2004). CARTScans: A Tool for Visualizing
Complex Models. *Journal of Computational and Graphical Statistics*. Vol. 13, No. 4,
pp.807-825.

Madigan, D. and Nason, M. (2002). “Sampling Techniques” & “Statistics Perspectives on
Data and Knowledge”. In *Handbook of Knowledge Discovery and Data Mining*, Oxford
University Press.

Madigan, D., Raghavan, N., DuMouchel, W., Nason, M., Posse, C., and Ridgeway, G. (2001).
Likelihood-based data squashing: A modeling approach to instance construction.
Journal of Data Mining and Knowledge Discovery.

Schaffner, A.; Madigan, D.; Hunt, E.; Graf, E.; Minstrell, J.; and Nason, M. (1996).
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. 480-484.

INVITED PRESENTATIONS:

- 2009 Spring Meetings, ENAR. Characterizing Immune Responses via Flow Cytometry.
- 2008 Spring Meeting, WNAR. Defining Immune Responses using Intracellular Cytokine
Staining: Pitfalls and Possibilities.
- 2006 Spring Meetings, ENAR. Investigating Associations between Functional Patterns
of Immune Response to HIV and Disease Progression

PROFESSIONAL SERVICE:

- 2008-9 Reviewer, *Cytometry*
- 2006-7 Reviewer, *Statistics in Medicine*
- 2007 Reviewer, *Vaccine*
- 2004 Member, Safety Monitoring Committee, AERAS Global TB Vaccine Foundation

RESEARCH INTERESTS:

Methodology for HIV Vaccine Trials; Statistics for Flow Cytometry; Statistical Consulting;
Exploratory Data Analysis; Visualization of complex models; Statistics Education; Design
and Analysis of Clinical Trials; Data Mining; Classification and Regression Trees;
Experimental Design; Statistical Computing.