Richard MacLeod Single

Department of Mathematics and Statistics
University of Vermont, 306 Mansfield House
Burlington, VT 05405-0082

Phone: (802) 656-8631
Fax: (802) 656-2552

Education

Ph.D. Statistics, State University of New York at Stony Brook, 1995

Advisor: Stephen Finch

M.S. Applied Mathematics, State University of New York at Stony Brook, 1992

B.S. Mathematics, *summa cum laude*, State University of New York at Albany, 1990
Minors: Physics, Music. Phi Beta Kappa

Work Experience

University of Vermont, Burlington VT (2001 present)
Associate Professor, Department of Mathematics and Statistics (2008 present)
Assistant Professor, Department of Mathematics and Statistics (2004 2008)
Research Assistant Professor, Department of Medical Biostatistics (2001 2004)

, Colchester, VT (2000 2001)
Assistant Professor, Department of Mathematics

University of California at Berkeley, Berkeley, CA (1999 2000)
Postdoctoral Research Associate, Department of Integrative Biology

Environmental Risk Analysis, San Mateo, CA (1998 1999)
Research Scientist

St. Olaf College, Northfield, MN (1995 1998)
Assistant Professor, Department of Mathematics
Director of Statistics Program (1996 1998)

Software Developed

asymLD: an R package for computing asymmetric Linkage Disequilibrium. The Comprehensive R Archive Network (CRAN), http://cran.r-project.org/

EMhaplofreq: software for the estimation of multilocus haplotype frequencies and linkage disequilibrium. Copyright © 2003 2009. The Regents of the University of California, under the terms of the GNU General Public License.

PyPop: A Software Framework for Population Genomics. Copyright © 2003 2009. The Regents of the University of California, under the terms of the GNU General Public License **(**http://www.pypop.org/ or http://www.uvm.edu/~pypop/).

Refereed publications in print and in press

The publications listed below are organized by the three major areas of my research and scholarship: 1) Immunogenetics and Statistical Genetics, 2) Medical Biostatistics, 3)

Mack SJ, Gourraud PA, Single RM, Thomson G, Hollenbach JA. Analytical methods for immunogenetic population data. *Methods Mol Biol*. 2012;882:215-44.

Gourraud PA, Hollenbach JA, Barnetche T, Single RM, Mack SJ. Standard methods for the management of immunogenetic data. *Methods Mol Biol*. 2012;882:197-213.

Hollenbach JA, Nocedal I, Ladner MB, Single RM, Trachtenberg EA. Killer cell immunoglobulin

Gourraud PA, Cambon-Thomsen A, Dauber EM, Feolo M, Hansen J, Mickelson E, Single RM, Thomsen M, Mayr WR. Nomenclature for HLA microsatellites. *Tissue Antigens*, 2007; 69: 210-213.

Meyer* D, Single* RM, Mack SJ, Erlich H, and Thomson G. Signatures of demographic history and natural selection in the human MHC loci. *Genetics*, 2006; 173: 2121-2142. *joint first authors.

Brien SJ, and Carrington M. Diversity of MICA and linkage disequilibrium with HLA-

McCahill LE, Single R, Ratliff J, Sheehey-Jones J, Gray A, James T. Local recurrence after partial mastectomy: relation to initial surgical margins. *Am J Surg*. 2011 Mar;201(3):374-378

James T, McCahill LE, Ratliff J, Ashikaga T, Single R, Sheehey-Jones J, Messier N, Stanley M, Krag D, Harlow S. Quality Assessment of Neoadjuvant Therapy Use in Breast Conservation: Barriers to Implementation.*The Breast Journal*, Volume 15 Number 5, 2009; 524-526.

Privette A, McCahill L, Borrazzo E, Single RM, Zubarik R. Laparoscopic approaches to resection of suspected gastric gastrointestinal stromal tumors based on tumor location. *Surgical Endoscopy*, 2008; 22(2): 487-494.

McCahill LE, Ahern JW, Gruppi LA, Limanek J, Dion GA, Sussman JA, McCaffrey CB, Leary DB, Lesage MB, and Single RM. Enhancing compliance with Medicare guidelines for surgical infection prevention: Experience with a cross-disciplinary quality improvement team. *Archives of Surgery*, 2007 142: 355-361.

Single RM, Meyer D, and Thomson G. Statistical methods for analysis of population genetic data. In: J.A. Hansen, ed: Immunobiology of the Human MHC. Proceedings of the 13th International Histocompatibility Workshop and Conference. Vol I, IHWG Press, Seattle, 2007; 518-522.

Single RM, Meyer D, Mack SJ, Lancaster A, Nelson MP, Fernández-Viña M, Erlich H, and Thomson G. Haplotype Frequencies and Linkage Disequilibrium among classical HLA genes. In: J.A. Hansen, ed: Immunobiology of the Human MHC. Proceedings of the 13th International Histocompatibility Workshop and Conference. Vol I, IHWG Press, Seattle, 2007; 705-746.

Single RM, Malkki M, Thomson G, Mather KA, Carrington M, and Petersdorf E. Linkage disequilibrium and HLA-A: B: DRB1 haplotype probabilities for Class I, II, III microsatellite markers in unrelated donor hematopoietic stem cell transplantation. In: J.A. Hansen, ed: Immunobiology of the Human MHC. Proceedings of the 13th International Hists[-)]TT2.024 604.0,erence. Voierence. Vol I.

Co-chair of the Biostatistical Analysis Project for the 14th IHIW (2002 2006).

Co-chair of the Microsatellite Working Group session at the 14th IHIW (2004 2005).

Consultant on questionnaire design and analysis for the Vermont State Department of Education and the Vermont Agency of Human Services.

Reviewer for *Genetic Epidemiology, American Journal of Human Genetics, Human Immunology, European Journal of Human Genetics, Tissue Antigens, Genes and Immunity, the American Statistician,* and the *Journal of Statistics Education*.