

CURRICULUM VITAE

Antje Hoering

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Education

<i>Foster School of Business, University of Washington, Seattle, WA</i>	
Executive Development Program	2017
<i>University of Washington, Seattle, WA</i>	
Postdoctoral Fellow Biostatistics	1996-1999
<i>Max-Planck-Institute for Nuclear Physics, Heidelberg, Germany</i>	
Ph.D. Physics, cum laude	1991
<i>Oregon State University, Corvallis, Oregon</i>	
M.S. Physics	1988
<i>University of Tübingen, Tübingen, Germany</i>	
B.S. Physics	1985

Professional Positions

Since 01/15:	Chief Executive Officer, President, Cancer Research And Biostatistics (CRAB), Seattle, Washington.
Since 3/05:	Affiliate Investigator, Division of Public Health Sciences, Fred Hutchinson Cancer Research Center, Seattle, Washington.
Since 2/06:	Affiliate Assistant Professor, Department of Biostatistics, University of Washington, Seattle, Washington.
1/13-12/14:	Chief Scientific Officer, Vice President, Cancer Research And Biostatistics (CRAB), Seattle, Washington.
11/04-12/12	Senior Biostatistician, Cancer Research And Biostatistics (CRAB), Seattle, Washington.
7/04-10/04:	Assistant Professor, Mayo Medical School, Mayo Clinic, Rochester, Minnesota.
7/03-10/04:	Senior Research Associate, Cancer Center Statistics, Section of Biostatistics, Mayo Clinic, Rochester, Minnesota.
1/02-6/03:	Research Scientist II, Insightful Corp., Seattle, Washington.
5/99-12/01:	Research Scientist I, Insightful Corp., Seattle, Washington.
6/96-4/99:	Senior Fellow/Postdoctoral Trainee, Department of Biostatistics, University of Washington, Fred Hutchinson Cancer Research Center, Seattle, Washington.
11/95-5/96:	Research Associate, European Center for Theoretical Studies in Nuclear Physics and Related Areas, ECT*, Trento, Italy.
4/93-10/95:	Research Assistant Professor, Department of Physics, University of Washington, Seattle, Washington.
11/91-3/93:	Postdoctoral Research Associate, Department of Physics, University of Washington, Seattle, Washington.
1/89-10/91:	Research Assistant, Max Planck Institute for Nuclear Physics, Heidelberg, Germany.

Non-Profit Board Positions

Since 01/24: Member, Publications Representative, American Statistical Association (ASA).

Since 06/22: President & Chair, Cancer Research And Biostatistics (CRAB).

Since 10/15: Member, Board of Governors, SWOG Cancer Research Network.

05/15-06/22: President, Cancer Research And Biostatistics (CRAB).

05/13-04/15: Member, Cancer Research And Biostatistics (CRAB).

Honors, Awards, Scholarships

9/96-4/99: **NRSA Postdoctoral Fellow** “Statistical Methods for Analyses of HIV Vaccine Trials”, NIH/NIAID, **Sponsor:** Steven G. Self, **Principal Investigator:** Antje Hoering. 1 F32 A109651 (\$101,600).

6/96-8/96: **NRSA Postdoctoral Fellow** “Clinical Research on AIDS Training Grant”, NIH/NIAID, Principal Investigator: Thomas R. Fleming. 1 T32 A107450.

1/89-10/91: **Predoctoral Fellow**, Max Planck Society, Germany.

7/86-7/87: **Fellow**, International Exchange Program, University of Tübingen.

Professional Activities

Lead of Independent Analysis Center, Friends of Cancer Research ctMoniTR Project, since 12/2019.

Faculty, American Society of Hematology Clinical Research Training Institute, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025

Biostatistics representative for Celator to pre-NDA meeting with the FDA, 2016.

Lead Statistician, Myeloma Institute for Research and Therapy, University of Arkansas, 1/2015-5/2019.

Director, Biostatistics Core, Sarcoma SPORE, 9/2012-8/2017.

Lead Statistician and Project Chair for a phase III registration trial in AML, 7/2012-7/2016.

Lead Statistician, SWOG Myeloma Committee, since 1/2011.

Biostatistics representative for Celator to Type B meeting with FDA, 2011.

Lead Statistician, Stand Up To Cancer, Pancreatic Dream Team, 7/2009-12/2013.

Biostatistics representative for SWOG Myeloma Committee to Type B meeting with FDA, 2009.

Lead Statistician, SWOG Early Therapeutics Subcommittee, 5/2008-1/2014.

Coordinating Statistician, Myeloma Institute for Research and Therapy, University of Arkansas, 11/2004-12/2014.

Coordinating Statistician, Pancreatic Cancer Research Team, 10/2005-12/2013.

Lead Statistician, International Myeloma Foundation, 11/2004-11/2018.

Consultant on a variety of industry sponsored oncology clinical trials (phase I-phase III), including Celator, Novartis, Jennerex, Oncotherapeutics, Venti Rx, ParinGenix, Immunomedics, Marsala Biotech, IRAD Oncology, Idera Pharmaceuticals.

Committee Membership

Member, NCI Pediatric Leukemia and Lymphoma Steering Committee, 2019-2022.

Member, NCI Myeloma Steering Committee, since 2010

Member, NCTN-CCSC, 2021-2024

Member, DSMB committee, University of Utah School of Medicine, 2010-2016.

Representative to the NCCTG Gender and Ethnic Diversity Committee, 7/03-10/04.

Editorial

Search Committee Member to identify new SBR editor, 2019.

Associate Editor, Statistics in Biopharmaceutical Research (SBR), since 01/2013.

Statistical Reviewer, Clinical Cancer Research.

Reviewer, Clinical Trials.

Reviewer, Leukemia.

Reviewer, Statistics in Medicine.

Referee for Physical Review C, Physical Review D, and Nuclear Physics A (1992-1999).

Societies

Since 2018: American Society of Hematology

Since 2011: International Myeloma Society

Since 2006: International Biometrics Society

Since 1996: American Statistical Association

Other Professional Activities

Mentor of US Biostatistics Capstone student, 2022-2024

Member of the Admissions Committee for PhD and MS students at the Biostatistics Department, University of Washington, 12/2022-2/2023; 12/2023-2/2024.

Member of the International Program Committee of the International Biometric Conference, 7/2018.

Organizer and Chair of Invited Session at International Biometrics Conference 2014, “Biomarkers in Oncology Clinical Trials.

IBS (International Biometrics Society) Council representative, 2014-2020

Reviewer, Baylor Cancer Center research grant, 2011.

Reviewer, European Commission for Medical Research, Brussels, Belgium, since 2010.

Reviewer, of SPORE grants, National Cancer Institute, 2009, 2014.

Secretary, WNAR (Western North American Region of the International Biometrics Society), 2006-2011.

Mentor of UW Biostatistics Capstone student, 2022-2024

Teaching

Instructor of BIOST 582 Student Seminar: University of Washington. Department of Biostatistics, 10/2019.

Instructor at Cancer Clinical Trial Methods: Training and Workshop at the Knight Cancer Institute, 1/2019.

Instructor at Addressing the Cancer Burden in Colombia through Clinical Trials, 11/2018.

Instructor at Addressing the Cancer Burden in Mexico and the US Hispanic and Native American Populations through Clinical Trials, 11/2017.

Instructor at Cancer Clinical Trial Methods: Training and Workshop at the Knight Cancer Institute, 9/2016.

Instructor at the Statistics in Clinical Oncology Workshop at the Belgian Cancer Academy, 10/2014.

Instructor and mentor at CRAB/Cancer Treatment Center of America Clinical Trials Training Course, 10/2013, 4/2014, 11/2014, 5/2015.

Advisory Board Member on Bachelor's of Public Health Degree at the Lake Washington Institute of Technology (LWIT), 8/2013-5/2016.

Instructor at Summer Institute in Biostatistics, University of Washington. Taught 2.5-day intensive workshop on "Design of Clinical Trials in Oncology", 8/2012, 8/2013.

Coordinator of SWOG Young Investigator Course (SWOG Clinical Trials Training Course and Protocol Development), 2011, 2012, 2013, 2014.

Mentor new medical doctor in the SWOG Myeloma committee at the SWOG Young Investigator Course, 2010, 2012.

Ph.D. applied Exam Grader, 2009.

Lead the CRAB statistics team, including 5 PhD statisticians, 7 MS statisticians and one SAS programmer, since 2004.

Taught tutorial sessions as part of introductory physics classes, Physics Department, University of Washington, Fall 1995 through Spring 1996.

Tutored students and organized seminars in the program on Research Experience for Undergraduates, Physics Department, University of Washington, Summer 1996.

Taught two courses for upper division physics majors preparing to be high school science teachers, Physics Department, University of Washington, Winter 1995, Spring 1996.

Bibliography:

Publications in referred journals:

1. Herman M, **Höring A**, Reffo G.⁺ Gamma emission in precompound reactions. II. Numerical application. Phys Rev C Nucl Phys. 1992 Dec;46(6):2493-2500. PMID: 9968379.
2. Herman M, **Höring A**, Reffo G.⁺ Gamma emission in precompound reactions. II. Numerical application. Phys Rev C Nucl Phys. 1992 Dec;46(6):2493-2500. PMID: 9968379.
3. W.C. Haxton, **A. Höring**.⁺ Time-reversal-noninvariant, parity-conserving nuclear interactions, Nuclear Physics A. 1993 Jul 12;560(1):469-482, ISSN 0375-9474.
4. Haxton WC, **Höring A**, Musolf MJ.⁺ Constraints on T-odd and P-even hadronic interactions from nucleon, nuclear, and atomic electric dipole moments. Phys Rev D Part Fields. 1994 Sep 1;50(5):3422-3432. PMID: 10017977.
5. Henyey, F. S., **Hoering A**.⁺ Energetics of borelike internal waves, J. Geophys. Res., 1997 Feb 15;102(C2), 3323-3330.
6. Seth A, Markee J, **Hoering A**, Sevin A, Sabath DE, Schmitz JE, Kuroda MJ, Lifton MA, Hirsch MS, Collier AC, Letvin NL, McElrath MJ. Alterations in T cell phenotype and human immunodeficiency virus type 1-specific cytotoxicity after potent antiretroviral therapy. J Infect Dis. 2001 Mar 1;183(5):722-9. PMID: 11181148.
7. Hudgens MG*, **Hoering A***, Self SG. On the analysis of viral load endpoints in HIV vaccine trials. Stat Med. 2003 Jul 30;22(14):2281-98. PMID: 12854093.
8. Eckel-Passow JE, **Hoering A**, Therneau TM, Ghobrial I. Experimental design and analysis of antibody microarrays: applying methods from cDNA arrays. Cancer Res. 2005 Apr 15;65(8):2985-9. Review. PMID: 15833819.
9. McClure RF, Remstein ED, Macon WR, Dewald GW, Habermann TM, **Hoering A**, Kurtin PJ. Adult B-cell lymphomas with burkitt-like morphology are phenotypically and genotypically heterogeneous with aggressive clinical behavior. Am J Surg Pathol. 2005 Dec;29(12):1652-60. PMID: 16327438.
10. Litzow MR, Dietz AB, Bulur PA, Butler GW, Gastineau DA, **Hoering A**, Fink SR, Letendre L, Padley DJ, Paternoster SF, Tefferi A, Vuk-Pavlović S. Testing the safety of clinical-grade mature autologous myeloid DC in a phase I clinical immunotherapy trial of CML. Cytotherapy. 2006;8(3):290-8. PMID: 16793737.
11. Moreno-Aspitia A, Colon-Otero G, **Hoering A**, Tefferi A, Niedringhaus RD, Vukov A, Li CY, Menke DM, Geyer SM, Alberts SR; North Central Cancer Treatment Group. Thalidomide therapy in adult patients with myelodysplastic syndrome. A North Central Cancer Treatment Group phase II trial. Cancer. 2006 Aug 15;107(4):767-72. PMID: 16826578.
12. Barlogie B, Tricot GJ, van Rhee F, Angtuaco E, Walker R, Epstein J, Shaughnessy JD, Jagannath S, Bolejack V, Gurley J, **Hoering A**, Vesole D, Desikan R, Siegel D, Mehta J, Singhal S, Munshi NC, Dhodapkar M, Jenkins B, Attal M, Harousseau JL, Crowley J. Long-term outcome results of the first tandem autotransplant trial for multiple myeloma. Br J Haematol. 2006 Oct;135(2):158-64. PMID: 16939489.
13. Walker R, Barlogie B, Haessler J, Tricot G, Anaissie E, Shaughnessy JD Jr, Epstein J, van Hemert R, Erdem E, **Hoering A**, Crowley J, Ferris E, Hollmig K, van Rhee F, Zangari M, Pineda-Roman M, Mohiuddin A, Yaccoby S, Sawyer J, Angtuaco EJ. Magnetic resonance imaging in multiple myeloma: diagnostic and clinical implications. J Clin Oncol. 2007 Mar 20;25(9):1121-8. PMID: 17296972.

⁺ Authors appear alphabetically; standard in Physics

14. **Hoering A**, Crowley J. Clinical trial designs for multiple myeloma. *Clin Adv Hematol Oncol*. 2007 Apr;5(4):309-16. Review. PMID: 17607290.
15. Haessler J, Shaughnessy JD Jr, Zhan F, Crowley J, Epstein J, van Rhee F, Anaissie E, Pineda-Roman M, Zangari M, Hollmig K, Mohiuddin A, Alsayed Y, **Hoering A**, Tricot G, Barlogie B. Benefit of complete response in multiple myeloma limited to high-risk subgroup identified by gene expression profiling. *Clin Cancer Res*. 2007 Dec 1;13(23):7073-9. PMID: 18056185.
16. Arzoumanian V, **Hoering A**, Sawyer J, van Rhee F, Bailey C, Gurley J, Shaughnessy JD Jr, Anaissie E, Crowley J, Barlogie B. Suppression of abnormal karyotype predicts superior survival in multiple myeloma. *Leukemia*. 2008 Apr;22(4):850-5. PMID: 18200039; PMCID: PMC3649865.
17. **Hoering A**, LeBlanc M, Crowley JJ. Randomized phase III clinical trial designs for targeted agents. *Clin Cancer Res*. 2008 Jul 15;14(14):4358-67. PMID: 18628448; PMCID: PMC2569946.
18. Van Ness B, Ramos C, Haznadar M, **Hoering A**, Haessler J, Crowley J, Jacobus S, Oken M, Rajkumar V, Greipp P, Barlogie B, Durie B, Katz M, Atluri G, Fang G, Gupta R, Steinbach M, Kumar V, Mushlin R, Johnson D, Morgan G. Genomic variation in myeloma: design, content, and initial application of the Bank On A Cure SNP Panel to detect associations with progression-free survival. *BMC Med*. 2008 Sep 8;6:26. PMID: 18778477; PMCID: PMC2553089.
19. Barlogie B, van Rhee F, Shaughnessy JD Jr, Epstein J, Yaccoby S, Pineda-Roman M, Hollmig K, Alsayed Y, **Hoering A**, Szymonifka J, Anaissie E, Petty N, Kumar NS, Srivastava G, Jenkins B, Crowley J, Zeldis JB. Seven-year median time to progression with thalidomide for smoldering myeloma: partial response identifies subset requiring earlier salvage therapy for symptomatic disease. *Blood*. 2008 Oct 15;112(8):3122-5. PMID: 18669874; PMCID: PMC2569167.
20. Johnson DC, Corthals S, Ramos C, **Hoering A**, Cocks K, Dickens NJ, Haessler J, Goldschmidt H, Child JA, Bell SE, Jackson G, Baris D, Rajkumar SV, Davies FE, Durie BG, Crowley J, Sonneveld P, Van Ness B, Morgan GJ. Genetic associations with thalidomide mediated venous thrombotic events in myeloma identified using targeted genotyping. *Blood*. 2008 Dec 15;112(13):4924-34. PMID: 18805967; PMCID: PMC3601865.
21. Tricot G, Barlogie B, Zangari M, van Rhee F, **Hoering A**, Szymonifka J, Cottler-Fox M (2008). Mobilization of peripheral blood stem cells in myeloma with either pegfilgrastim or filgrastim following chemotherapy. *Haematologica* 93(11):1739-1742. PMID: 18728024
22. Tricot G, Barlogie B, Zangari M, van Rhee F, **Hoering A**, Szymonifka J, Cottler-Fox M. Mobilization of peripheral blood stem cells in myeloma with either pegfilgrastim or filgrastim following chemotherapy. *Haematologica*. 2008 Nov;93(11):1739-42. PMID: 18728024.
23. Pineda-Roman M, Zangari M, van Rhee F, Anaissie E, Szymonifka J, **Hoering A**, Petty N, Crowley J, Shaughnessy J, Epstein J, Barlogie B. VTD combination therapy with bortezomib-thalidomide-dexamethasone is highly effective in advanced and refractory multiple myeloma. *Leukemia*. 2008 Jul;22(7):1419-27. PMID: 18432260; PMCID: PMC3664925.
24. van Rhee F, Dhodapkar M, Shaughnessy JD Jr, Anaissie E, Siegel D, **Hoering A**, Zeldis J, Jenkins B, Singhal S, Mehta J, Crowley J, Jagannath S, Barlogie B. First thalidomide clinical trial in multiple myeloma: a decade. *Blood*. 2008 Aug 15;112(4):1035-8. PMID: 18502827; PMCID: PMC2515147.

25. Dhodapkar MV, **Hoering A**, Gertz MA, Rivkin S, Szymonifka J, Crowley J, Barlogie B. Long-term survival in Waldenstrom macroglobulinemia: 10-year follow-up of Southwest Oncology Group-directed intergroup trial S9003. *Blood*. 2009 Jan 22;113(4):793-6. PMID: 18931340; PMCID: PMC2630265.
26. Barlogie B, Tricot G, Haessler J, van Rhee F, Cottler-Fox M, Anaissie E, Waldron J, Pineda-Roman M, Thertulien R, Zangari M, Hollmig K, Mohiuddin A, Alsayed Y, **Hoering A**, Crowley J, Sawyer J. Cytogenetically defined myelodysplasia after melphalan-based autotransplantation for multiple myeloma linked to poor hematopoietic stem-cell mobilization: the Arkansas experience in more than 3,000 patients treated since 1989. *Blood*. 2008 Jan 1;111(1):94-100. PMID: 17895401; PMCID: PMC2200826.
27. Nair B, Shaughnessy JD Jr, Zhou Y, Astrid-Cartron M, Qu P, van Rhee F, Anaissie E, Alsayed Y, Waheed S, Hollmig K, Szymonifka J, Petty N, **Hoering A**, Barlogie B. Gene expression profiling of plasma cells at myeloma relapse from tandem transplantation trial Total Therapy 2 predicts subsequent survival. *Blood*. 2009 Jun 25;113 (26):6572-5. PMID: 19389881; PMCID: PMC2710916.
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29. Durie BG, Van Ness B, Ramos C, Stephens O, Haznadar M, **Hoering A**, Haessler J, Katz MS, Mundy GR, Kyle RA, Morgan GJ, Crowley J, Barlogie B, Shaughnessy J Jr. Genetic polymorphisms of EPHX1, Gsk3beta, TNFSF8 and myeloma cell DKK-1 expression linked to bone disease in myeloma. *Leukemia*. 2009 Oct;23(10):1913-9. PMID: 19657367; PMCID: PMC3684359.
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32. Barlogie B, Anaissie E, van Rhee F, Shaughnessy JD Jr, Szymonifka J, **Hoering A**, Petty N, Crowley J. Reiterative survival analyses of total therapy 2 for multiple myeloma elucidate follow-up time dependency of prognostic variables and treatment arms. *J Clin Oncol*. 2010 Jun 20;28(18):3023-7. PMID: 20479421; PMCID: PMC2903335.
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35. Garg TK, Szmania SM, Khan JA, **Hoering A**, Malbrough PA, Moreno-Bost A, Greenway AD, Lingo JD, Li X, Yaccoby S, Suva LJ, Storrie B, Tricot G, Campana D, Shaughnessy JD Jr, Nair BP, Bellamy WT, Epstein J, Barlogie B, van Rhee F. Highly activated and expanded natural killer cells for multiple myeloma immunotherapy. *Haematologica*. 2012 Sep;97(9):1348-56. PMID: 22419581; PMCID: PMC3436235.
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37. Usmani SZ, Sexton R, **Hoering A**, Heuck CJ, Nair B, Waheed S, Al Sayed Y, Chauhan N, Ahmad N, Atrash S, Petty N, van Rhee F, Crowley J, Barlogie B. Second malignancies in total therapy 2 and 3 for newly diagnosed multiple myeloma: influence of thalidomide and lenalidomide during maintenance. *Blood*. 2012 Aug 23;120(8):1597-600. PMID: 22674807; PMCID: PMC3429303.
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41. Usmani SZ, Mitchell A, Waheed S, Crowley J, **Hoering A**, Petty N, Brown T, Bartel T, Anaissie E, van Rhee F, Barlogie B. Prognostic implications of serial 18-fluoro-deoxyglucose emission tomography in multiple myeloma treated with total therapy 3. *Blood*. 2013 Mar 7;121(10):1819-23. PMID: 23305732; PMCID: PMC3591801.
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45. Papanikolaou X, Szymonifka J, Rosenthal A, Heuck CJ, Mitchell A, Johann D Jr, Keller J, Waheed S, Usmani SZ, Van Rhee F, Bailey C, Petty N, **Hoering A**, Crowley J, Barlogie B. Metronomic therapy is an effective salvage treatment for heavily pre-treated relapsed/refractory multiple myeloma. *Haematologica*. 2013 Jul;98(7):1147-53. PMID: 23716540; PMCID: PMC3696620.
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50. Srkalovic G, Hussein MA, **Hoering A**, Zonder JA, Popplewell LL, Trivedi H, Mazzoni S, Sexton R, Orlowski RZ, Barlogie B. A phase II trial of BAY 43-9006 (sorafenib) (NSC-724772) in patients with relapsing and resistant multiple myeloma: SWOG S0434. *Cancer Med*. 2014 Oct;3(5):1275-83. PMID: 24913924; PMCID: PMC4302677.
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1. **Höring A**, Weidenmüller HA, Dietrich FS, Herman M, Reffo G (1990). A Study of Reaction Mechanisms for Gamma Production in Fast-Nucleon Induced Reactions, AIP Conference Proceedings, Capture Gamma-Ray Spectroscopy and Related Topics-1990 (International Symposium, Asilomar, California). PMID: n/a.
2. **Hoering A**, Clarkson BD, Gonzales R (2001). Random Effects Multidimensional Unfolding Models. Joint Statistical Meeting:276-281. www.amstat.org.
3. Mandrekar S, Geyer S, Suman V, Ballman K, **Hoering A**, Sargent D (2004). Clinical Trial Designs for Dose-seeking, Non-MTD Trials with Biomarker Endpoints, Joint Statistical Meeting. Toronto, Canada. Oral Presentation.
4. Slager S, McDonnell SK, Pankratz VS, **Hoering A**, Therneau TM, de Andrade M (2006). Evaluation of Three Approaches to Correct for Ascertainment of Pedigrees for Random-Effects Cox Proportional Hazard Linkage Analysis. Joint Statistical Meeting. Seattle, WA. Oral Presentation.

Publications about my work:

1. Karow J. Statistics Software Firms Size up Genomics; Three Micorarray Products Due to Launch. Bioinform July 15, 2002, www.bioinform.com.
2. Insightful wins \$750,000 SBIR Grant for Genomic Mining. July 2, 2002, www.genomeweb.com.

Others:

1. **Höring A**. Application of the Schematic Model to Four-Quasiparticle States. Master Thesis, University of Oregon, Corvallis, Oregon, 1988.
2. **Höring A**. Dipole-Gamma Emission in Pre-Equilibrium Nuclear Reactions (in German). Ph.D. Thesis, University of Heidelberg, Heidelberg, Germany, 1991.

3. Clarkson DB, **Hoering A** (2002). S+GeneExpress Preliminary Library Design, Technical Report, Insightful Corporation, Seattle, WA.

Funding History - Statistical Methods Grants

- 3/08-7/12: **Co-Investigator**, "Statistical Methods for Clinical Studies"
Principal Investigator: Mike LeBlanc
 NIH/NCI 2 R01 CA090998-06A2 (\$567,000).
- 5/02-4/04: **Principal Investigator** "Mendelian Model Based Inference in Statistical Genetics"
 NIH/NIGMS 2 R44 GM60896-02 (\$749,755).
- 9/01-9/02: **Principal Investigator** "S+cDNA: Analysis Tools for Microarray Data"
 NIH/NCI 1 R43 CA91631-01 (\$103,980).
- 3/00-8/01: **Principal Investigator** "Mendelian Model Based Inference in Statistical Genetics"
 NIH/NCI 1 R43 GM60896-01 (\$100,912).
- 9/96-4/99: **Principal Investigator** "Statistical Methods for Analyses of HIV Vaccine Trials"
Mentor: Steve Self
 NIH/NIAID NRSA Postdoctoral Fellow 1 F32 A109651 (\$101,600).

Recently Completed Funding – Collaborative Grants and Contracts

- 8/14-12/23: **Principal Investigator:** "S1400, Phase Biomarker-Driven Master Protocol" (5%)
 S1400 (\$1,657,669/year)
- 2/16-1/21: **Co-Investigator** "Proteasome Assembly Chaperones in Sensitivity and Resistance to Proteasome Inhibitors"
Principal Investigator: Robert Orlowski
 R01 CA194264 **Subaward** (\$12,595/year)
- 1/15-12/20: **Co-Investigator** "Role of TJP1 in Sensitivity and Resistance to Proteasome Inhibitors in Myeloma"
Principal Investigator: Robert Orlowski
 R01 CA184464 **Subaward** (\$12,595/year)
- 12/19-6/20: Independent Analysis Center PI "ctDNA to Monitor Treatment Response (ctMoniTR) Project"
 40350 (\$412,940/year)
- 7/15-9/19: **Co-Investigator** "Knight Cancer Inst Biostat Strategic and Business Plan"
Principal Investigator: Tomi Mori
 PSC-2016-0249 **Subaward** (\$85,632/year)
- 1/15-5/19: **Co-Investigator** "Growth Control in Multiple Myeloma"
Principal Investigator: Gareth Morgan
- 7/17-4/19: **Statistical Core Principal Investigator** "Growth Control in Multiple Myeloma"
Principal Investigator: Gareth Morgan
 S190120936 **Subaward** (\$809,437/year)
- 9/17-3/19 **Co-Investigator** "The Transformer Trial"
Principal Investigator: Sam Denmeade
 W81XWH-14-2-0189 **Subaward** (\$252,771/year)

- 4/14-2/19: **Consortium Principal Investigator** “SWOG Statistics and Data Management Center”
Principal Investigator: Michael LeBlanc
U10 CA180819 (\$7,038,884/year)
Subaward (\$4,389,507/year)
- 12/15-11/17: **Co-Investigator** “PET Scan for Prognostication in Newly Diagnosed High Risk Multiple Myeloma”
Principal Investigator: Saad Usmani
R01 CA201634 **Subaward** (\$37,941/year)
- 9/12-8/17: **Co-Investigator**, “SARC Sarcoma SPORE”
Principal Investigator: Raphael Pollock
U54 CA168512 **Subaward** (\$111,323/year)

Active Funding – Collaborative Grants and Contracts

- 8/21-7/26: **Collaborator Principal Investigator/Project Director** “Mutographs Differentiating the Racial and Temporal Incidence of Multiple Myeloma” (5.25%)
Principal Investigator: Gareth Morgan
R01 CA249981 \$1,234,790
Subaward (\$306,557 to date)
- 4/19-2/25: **Consortium Principal Investigator** “SWOG Statistics and Data Management Center” (45%)
Principal Investigator: Michael LeBlanc
U10 CA180819-11 \$7,621,416
Subaward (\$4,784,436/year)
- 8/24 – 7/25: **Consortium Principal Investigator** “NCORP Cancer Control and Prevention” 1014562, 0001199467
Principal Investigator: Cathy Tangen
Subaward \$1,415,707
- 4/15-3/25: **Consortium Principal Investigator** “SWOG Biospecimen Bank to Support NCI NCTN” (45%)
Principal Investigator: Nilsa Del Carmen Ramirez Milan, MD
5U24CA196175-10 \$2,541,568
Subaward (\$162,636/year)
- 9/13-7/24: **Consortium Principal Investigator** “PCPT and SELECT Cohorts: Core Infrastructure Support for Cancer Research” (5%)
Principal Investigator: Catherine Tangen
U01 CA182883 \$957,825 /year
Subaward (\$125,173/year)
- 2/21-12/24: **Independent Analysis Center PI** “ctDNA to Monitor Treatment Response (ctMoniTR) Project” (5%)
40351 (\$32,700/year)
- 2/24-12/27: **Consortium Principal Investigator** “Statistics and Data Management Center (SDMC) for the NCI Cancer Screening Research Network (CSRN)” (5%)
Principal Investigator: Charles L Kooperberg
1 UG1 CA287013-01 \$818,521
Subaward (\$353,924/year)

8/21-7/26: **Collaborator Principal Investigator/Project Director** “Mutographs
Differentiating the Racial and Temporal Incidence of Multiple Myeloma”
Principal Investigator: Morgan (PI)
R01 CA249981
Subaward \$72,111

Presentations:

- *10/90: Oregon State University, Corvallis, Oregon,
“Gamma Emission in Statistical Nuclear Reactions”.
- *10/90: LBL, Berkeley, California,
“Gamma Emission in Statistical Nuclear Reactions”.
- *10/90: Asilomar, Conference on Capture Gamma Ray Spectroscopy (poster),
“A Study of Reaction Mechanism for Gamma Production in Fast-Nucleon Induced
Reactions”.
- *4/91: Michigan State University, East Lansing, Michigan,
“Gamma Emission in Precompound Nuclear Reactions”.
- *6/91: University of Heidelberg, Heidelberg, Germany,
“Dipole-Gamma Emission in Pre-Equilibrium Reactions”.
- *8/91: University of Heidelberg, Symposium on Theoretical Nuclear Physics in East and West
Germany, “Dipole-Gamma Emission in Pre-Equilibrium Reactions”.
- *5/92: University of Washington, Seattle, Washington,
“Characterization of Spectral Fluctuations”.
- *10/93: MPI, Heidelberg, Symposium on Fluctuations, Chaos and Symmetries,
“Time-Reversal Noninvariant, Parity Conserving Nuclear Interactions”.
- *5/94: APL, University of Washington, Seattle, Washington,
“Energetics of an Internal Bore”.
- *8/94: INT, Program on Applications of Chaos in Many-Body Quantum Physics,
“Constraints on T-odd and P-even Hadronic Interactions”.
- *2/95: TRIUMP, Vancouver, Canada,
“Constraints on T-odd and P-even Hadronic Interactions”.
- *3/95: Argonne National Laboratory, Chicago, Illinois,
“Constraints on T-odd and P-even Hadronic Interactions”.
- *3/95: Indiana University, Bloomington, Indiana,
“Constraints on T-odd and P-even Hadronic Interactions”.
- *2/96: European Center for Theoretical Studies in Nuclear Physics, ECT*,
“From Chaos to Breaking of Time-Reversal Invariance”.
- *2/99: Insightful Corporation, Seattle, WA,
“On the Use of Viral Endpoints in HIV Vaccine Efficacy Trials”.

- *3/99: MD Anderson Cancer Research Center, Houston, TX,
“On the Use of Viral Endpoints in HIV Vaccine Efficacy Trials”.
- 8/01: Joint Statistical Meeting, Atlanta, Georgia,
“Random Effects Multidimensional Unfolding Models”.
- *11/02: Northwestern University, Chicago, IL,
“On the Use of Viral Endpoints in HIV Vaccine Efficacy Trials”.
- *11/02: Mayo Clinic, Rochester, MN,
“On the Use of Viral Endpoints in HIV Vaccine Efficacy Trials”.
- *7/04: Cancer Research And Biostatistics, Seattle, WA,
“Mixed Effects Cox Model and Ascertainment Effects”.
- *6/06: International Myeloma Workshop, Kos, Greece,
“Clinical Trial Designs for Multiple Myeloma”.
- *7/07: Fred Hutchinson Cancer Research Center, Seattle, WA,
“Phase III Trial Design for Targeted Therapies”.
- *9/07: Biostatistics Departmental Retreat, University of Washington, WA,
“Statistics at CRAB and Clinical Trial Designs for Targeted Therapies”.
- *10/07: Southwest Oncology Group Meeting, Huntington Beach, CA,
“Statistical Analyses for Bank on a Cure, a Myeloma-Specific DNA Bank”.
- *5/08: Southwest Oncology Group Meeting Plenary Session, Atlanta, GA,
“Randomized Phase III Clinical Trial Designs for Targeted Agents”.
- 6/10: American Society of Clinical Oncology, Annual Meeting, Chicago, Illinois,
“Genomic Evolution in Total Therapy 2 and Total Therapy 3 for Newly Diagnosed Multiple Myeloma”.
- *6/10: Western North American Region of the International Biometrics Society, Seattle, WA,
“Seamless Phase I/II Trial Design for Targeted Agents”.
- 12/10: American Society of Hematology, Annual Meeting, Orlando, FL
“Prognostic Index for Predicting Overall Survival and Event-Free Survival in Total Therapy 3 Patients”.
- *3/11: Clinical Trials Affinity Group, Fred Hutchinson Cancer Research Center,
“Randomized Phase III clinical Trial Designs for Targeted Agents ”.
- *2/12: Department of Biostatistics, Departmental Seminar, University of Washington, Seattle, WA,
“Randomized Phase III clinical Trial Designs for Targeted Agents ”.
- *10/12: Beijing University of Chinese Medicine, Beijing, China,
“Design of Cancer Clinical Trials, Phase I-III”.
- *10/12: Beijing University of Chinese Medicine, Beijing, China,
“Phase III Oncology Clinical Trials in the Era of Targeted Agents”.
- *4/14: American Association of Cancer Research, San Diego, California,
“Statistical Designs in Complex Phase II Trials and Definitive Phase III Studies in the Era of Targeted Agents”.
- *11/14: Canadian Statistical Sciences Institute (CANSSI), Toronto, Canada,
“Randomized Phase III Clinical Trial Designs for Targeted Therapies”

- *8/15: Pacific Rim Cancer Biostatistics Conference, Seattle, WA,
“Early Phase Trial Design for Targeted Agents”
- *4/16: East Seminar, Seattle, WA,
“Practical Challenges with S1400 – Lung-MAP”
- *8/16: Joint Statistical Meeting, Chicago, IL
“Teams in the Setting of Coordinating Centers”
- *9/16: Minimal Residual Disease as a Surrogate Endpoint in Hematologic Cancer Trials,
Washington, DC, Panelist
“Use of MRD as a Surrogate Endpoint in Multiple Myeloma”
- *9/16: Cancer Clinical Trial Methods Workshop, Knight Cancer Institute
“Phase II and I-II Trial Designs” and “Integration of Biomarkers into Clinical Trials”
- *10/17: Jeri & Noboru Oishi Symposium, SWOG Group Meeting, Chicago, IL
“Updates on SWOG Myeloma Study S0777”
- *11/17: Addressing the Cancer Burden in Mexico and the US Hispanic and Native American
Populations through Clinical Trials, Mexico City, Mexico
“Integration of Biomarkers into Phase III Trial Designs”
- *8/18: American Society of Hematology, Clinical Research Training Institute, La Jolla, CA
“DIY Statistics for Hematologists: Statistical Tools for design and analysis for standard
trials”
- *11/18: Addressing the Cancer Burden in Colombia through Clinical Trials, Bogota, Colombia
“Integrating Biomarkers in Clinical Trials”
- *12/18: American Society of Hematology, Annual Meeting, San Diego, CA
“Basic Statistics for Hematologist”
- *1/19: Cancer Clinical Trial Methods Training Workshop, Knight Cancer Institute,
Portland, OR
“Design Consideration for Larger Cancer Clinical Trials in the Presence of Predictive
Markers”
- *3/19: AACR Annual Meeting, Educational Session, Atlanta, GA
“Precision Oncology: Integration of Biomarkers into Phase III Trial Designs”
- *5/19: PCRT Annual Meeting, Chicago, IL
“PCRT Updates and Platform Solutions”
- *8/19: American Society of Hematology, Clinical Research Training Institute, La Jolla, CA
“DIY Statistics for Hematologists”
- *9/19: Clinical Biomarkers & World CDx Conference, Boston, MA
“Integrating Biomarkers in Phase III Clinical Trial Designs”
- *1/20: Knight 4th Cancer Clinical Trials Methods and Training Workshop, Portland, OR
“Integrating Biomarkers in Phase III Clinical Trial Designs”
- *8/20: Friends of Cancer Research, virtual meeting
Panelist on: “Do Changes in ctDNA Reflect Response to Treatment?”
- *8/20: Friends of Cancer Research, virtual Q&A session
Panelist on: “Building ctMoniTR: Step 1 Questions and Step 2 Goals”

- *9/20: Clinical Biomarkers and World CDx Digital Summit, Women and Diversity in Precision Medicine event
Panel Chair on: “The Collective Benefits and Practical Application of Mentoring Schemes”
- *11/20 Clinical Research as a Tool for Addressing the Cancer Burden in Latin America, virtual meeting
“Integrating Biomarkers in Phase III Clinical Trial Designs”
- *2/21: American Society of Hematology, Clinical Research Training Institute, virtual
“Sample Size Considerations and Tools”
- *3/21: Knight 5th Cancer Clinical Trials Methods and Training Workshop, Portland, OR
“Study Design Considerations for Precision Oncology”
- *4/21: SWOG Latin America Initiative Conference, Cancer Clinical Study Design, virtual
“Statistical Tools for Design: Part I”
- *8/22: American Society of Hematology, Clinical Research Training Institute, La Jolla, CA
“Sample Size Considerations & Tools”
- *9/22: International Myeloma Society, 19th Annual Meeting & Exposition, Los Angeles, CA
“How do you Define Cure in Myeloma?”
- *9/22: ASA Biopharmaceutical Section Regulatory-Industry Statistics Workshop, Rockville, MD
“Evidentiary Roadmap for Use of CtDNA in Cancer Drug Development and as an Early Endpoint”
- *11/22 Future of Drug Development in Multiple Myeloma: An IMS-FDA Joint Workshop, Bethesda, MD
Panelist on: “Regulatory considerations for endpoints (PFS, OS, MRD, QoL)”
- *02/23 Liquid Biopsy for Precision Oncology Summit: Accelerating LBx Applications & Approvals Across the Continuum of Patient Care, San Diego, CA
“ctMoniTR - From the Perspective of the Independent Analysis Center (IAC)”
- *08/23 American Society of Hematology, Clinical Research Training Institute, La Jolla, CA
“Sample Size Considerations & Tools”
- *11/23 Fred Hutch Cancer Center, Clinical Trials Affinity Group, Seattle, WA
“ctMoniTR Project – From the Perspective of the Independent Analysis Center”
- *08/24 American Society of Hematology, Clinical Research Training Institute, La Jolla, CA
“Sample Size Considerations & Tools”

* Invited presentation

Teaching History:

Taught two courses for upper division physics majors preparing to be high school science teachers, Physics Department, University of Washington, Winter 1995, Spring 1996.

Tutored students and organized seminars in the program on Research Experience for Undergraduates, Physics Department, University of Washington, Summer 1996.

Taught tutorial sessions as part of introductory physics classes, Physics Department, University of Washington, Fall 1995 through Spring 1996.

Lead the CRAB statistics team, including 5 PhD statisticians, 7 MS statisticians and one SAS programmer, since 2004.

Ph.D. applied Exam Grader, 2009.

Mentor new medical doctor in the SWOG Myeloma committee at the SWOG Young Investigator Course, 2010, 2012.

Coordinator of SWOG Young Investigator Course (SWOG Clinical Trials Training Course and Protocol Development), 2011, 2012, 2013, 2014.

Instructor at Summer Institute in Biostatistics, University of Washington. Taught 2.5-day intensive workshop on “Design of Clinical Trials in Oncology”, 8/2012, 8/2013.

Advisory Board Member on Bachelor’s of Public Health Degree at the Lake Washington Institute of Technology (LWIT), 8/2013-5/2016.

Instructor and mentor at CRAB/Cancer Treatment Center of America Clinical Trials Training Course, 10/2013, 4/2014, 11/2014, 5/2015.

Instructor at the Statistics in Clinical Oncology Workshop at the Belgian Cancer Academy, 10/2014.

Instructor at Cancer Clinical Trial Methods: Training and Workshop at the Knight Cancer Institute, 9/2016.

Instructor at Addressing the Cancer Burden in Mexico and the US Hispanic and Native American Populations through Clinical Trials, 11/2017.

Instructor at Addressing the Cancer Burden in Colombia through Clinical Trials, 11/2018.

Instructor at Cancer Clinical Trial Methods: Training and Workshop at the Knight Cancer Institute, 1/2019.

Instructor of BIOS 582 Student Seminar: University of Washington. Department of Biostatistics, 10/2019.