

AASTHAA BANSAL

Curriculum Vitae

Last Updated: August 2018

CONTACT INFORMATION

The Comparative Health Outcomes, Policy, and Economic (CHOICE) Institute
Department of Pharmacy, University of Washington
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Seattle, WA 98195

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EDUCATION

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- Ph.D. Biostatistics, University of Washington, Seattle, WA 2011
Title: Combining Biomarkers to Improve Performance in Diagnostic Medicine
Committee: Margaret S. Pepe (chair), Kathleen F. Kerr, Yingye Zheng, Ziding Feng
 - M.S. Biostatistics, University of Washington, Seattle, WA 2008
 - B.Math. Honors Computer Science: Bioinformatics Option, University of Waterloo, Waterloo, ON 2006

RESEARCH & PROFESSIONAL EXPERIENCE

-
- Assistant Professor, Department of Pharmacy, University of Washington 2018-Present
 - Joint Assistant Member, Division of Public Health Sciences, Fred Hutchinson Cancer Research Center 2015-Present
 - Research Assistant Professor, Department of Pharmacy, University of Washington 2013-2018
 - Post-doctoral Senior Fellow, Department of Biostatistics, University of Washington 2012-2013
 - Research Assistant, Center for Biomedical Statistics, University of Washington 2009-2011
 - Research Assistant, Biostatistics & Biomathematics, Fred Hutchinson Cancer Research Center 2007-2009
 - Research Assistant, Department of Biostatistics, University of Washington 2006-2007
 - Bioinformatics Intern, Royal College of Surgeons in Ireland, Dublin, Ireland 2005
 - Molecular Biology Lab Intern, Cangene Corporation, Toronto, ON 2004

AWARDS & HONORS

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- Outstanding Mentor Award Nominee, School of Pharmacy, University of Washington 2017
 - Best New Investigator Poster Presentation, International Society for Pharmacoeconomics and Outcomes Research 2016
 - Best New Investigator Podium Presentation, International Society for Pharmacoeconomics and Outcomes Research 2015
 - Research Starter Grant in Health Outcomes, Pharmaceutical Research and Manufacturers of America Foundation 2015
 - Young Investigator Award, Section on Statistics in Epidemiology, American Statistical Association 2011
 - Student Oral Presentation 2nd place, Western North American Region, International Biometric Society 2010
 - Best Student Poster (voted by faculty), Department of Biostatistics, University of Washington 2009
 - Best Student Poster (voted by 1st yr students), Department of Biostatistics, University of Washington 2009
 - Ireland Canada University Foundation Scholarship 2005
 - Work-term Report Award, Faculty of Mathematics, University of Waterloo 2003
 - University of Waterloo Entrance Scholarship 2001
 - Queen Elizabeth II Aiming for the Top Scholarship, Government of Ontario 2001-2006

ARTICLES IN REFEREED JOURNALS (*TRAINEE AUTHOR, +SENIOR AUTHOR)

-
1. McDermott CL*, **Bansal A**, Ramsey SD, Lyman GH, Sullivan SD. Depression and healthcare utilization at end-of-life among older adults with advanced non-small cell lung cancer. *Journal of Pain and Symptom Management*, in press.

2. **Bansal A**, Heagerty PJ. A tutorial on evaluating time-dependent discrimination accuracy for censored survival outcomes. *Medical Decision Making*, in press. Preprint: <http://arxiv.org/abs/1706.09603>.
3. Canestaro WJ*, Hendrix N, **Bansal A**, Sullivan SD, Devine EB, Carlson JJ. Favorable and publicly-funded studies are more likely to be published: A systematic review and meta-analysis. *Journal of Clinical Epidemiology*, in press.
4. Burnett-Hartman AN, Adams SV, **Bansal A**, McDougall JA, Shiovitz S, Karnopp A, Warren-Mears V, Ramsey SD (2018). Indian Health Service care system and cancer stage in American Indians and Alaska Natives. *Journal of Health Care for the Poor and Underserved*, 29(1): 245-252.
5. Yeung K*, Suh K, Basu A, Garrison LP, **Bansal A**, Carlson JJ. Paying for Cures: How Can We Afford It? Managed Care Pharmacy Stakeholders' Perceptions of Policy Options to Address Affordability of Prescription Drugs. *Journal of Managed Care & Specialty Pharmacy*, 23(10): 1084-1090.
6. **Bansal A**, Koepl LM, Fedorenko CR, Li C, Smith JL, Hall IJ, Penson DJ, Ramsey SD (2017). Information seeking and satisfaction with information sources among spouses of men with newly diagnosed local stage prostate cancer. *Journal of Cancer Education*, 2017 Feb 25. doi: 10.1007/s13187-017-1179-6. [Epub ahead of print].
7. **Bansal A**, Sullivan SD, Lyman G, Hershman D, Barlow WE, McCune J, Ramsey SD (2017). A Stakeholder-Informed Randomized, Controlled Comparative Effectiveness Study of an Order Prescribing Intervention to Improve Colony Stimulating Factor use for Cancer Patients Receiving Myelosuppressive Chemotherapy, (SWOG S1415CD): The TrACER Study. *Journal of Comparative Effectiveness Research*, 6(5): 461-470.
8. Dardas T, Kim M, **Bansal A**, Heagerty PJ, Cheng R, Mokadam N, Pal J, Smith J, Mahr C, Levy W (2017). Agreement between risk and heart transplant priority: Effects of the geographic allocation rule and status assignment. *Journal of Heart and Lung Transplantation*, 36(6): 666-672.
9. Tung A*, Hepp Z, **Bansal A**+, Devine B+ (2017). Characterizing healthcare utilization, direct costs, and comorbidities associated with Interstitial Cystitis: A retrospective claims analysis. *Journal of Managed Care and Specialty Pharmacy*, 23(4): 474-482.
10. Othus M, **Bansal A**, Koepl L, Wagner S, Ramsey S (2017). Accounting for cured patients in cost-effectiveness analysis. *Value in Health*, 20(4): 705-709.
11. Bounthavong M*, Pruitt LD, Smolenski DJ, Gahm GA, **Bansal A**, Hansen RN (2016). Economic evaluation of In-Home Telehealth compared to In-Person Treatment Delivery for managing depression, pii: 1357633X16678147. [Epub ahead of print]
12. Boldenow E, Gendrin C, Ngo L, Bierle C, Vornhagen J, Merillat S, Armistead B, Whidbey C, Alishetti V, Ogle J, Gough M, Srinouanprachanh S, MacDonald JW, Bammler TK, **Bansal A**, Liggitt HD, Rajagopal L, Adams Waldorf KM (2016). Group B Streptococcus circumvents neutrophils and neutrophil extracellular traps during amniotic cavity invasion and preterm labor. *Science Immunology*, 1(4). pii: eaah4576.
13. Adams SV, Burnett-Hartman AN, Karnopp A, **Bansal A**, Cohen SA, Warren-Mears V, Ramsey SD (2016). Cancer stage in American Indians and Alaska Natives enrolled in Medicaid. *American Journal of Preventive Medicine*, 51(3): 368-372.
14. Adams SV, **Bansal A**, Burnett-Hartman AN, Cohen S, Karnopp A, Warren-Mears V, Ramsey SD (2016). Cancer treatment delays in American Indians and Alaska Natives enrolled in Medicare. *Journal of Health Care for the Poor and Underserved*, 28(1): 350-361.
15. McDougall JA*, **Bansal A**, Goulart B, Sullivan S, McCune J, Karnopp A, Fedorenko C, Valderrama A, Seal B, Ramsey SD (2016). The clinical and economic impacts of skeletal related events among Medicare enrollees with prostate cancer metastatic to bone. *The Oncologist*, 21(3): 320-326.
16. Ramsey SD, **Bansal A**, Fedorenko CR, Blough DK, Overstreet KA, Shankaran V, Newcomb P. Financial insolvency as a risk factor for early mortality among patients with cancer (2016). *Journal of Clinical Oncology*, 34(9): 980-986.
17. **Bansal A**, Radich JP (2016). Is cure for CML possible in the TKI era? *Current Opinion in Hematology*, 23(2): 115-120.

18. Berriochoa CA, Hibbard D, Morcos M, **Bansal A**, Comstock B, Pellegrini C, Shankaran V, Patel S (2015). Tumor length as a prognostic factor in esophageal cancer management. *Journal of Radiation Oncology*, 4(1): 71-77.
19. Adams Waldorf KM, Singh N, Mohan AR, Young RC, Ngo L, Das A, Tsai J, **Bansal A**, Paoella L, Herbert BR, Sooranna SR, Gough M, Astley C, Vogel K, Baldessari AE, Bammler TK, MacDonald J, Gravett MG, Rajagopal L, Johnson M (2015). Uterine overdistention induces preterm labor mediated by inflammation: Observations in pregnant women and nonhuman primates. *American Journal of Obstetrics & Gynecology*, 213(6): 830.e1-830.e19.
20. Ramsey SD, Fedorenko CR, Chouhan R, McGee R, Lyman G, Kreizenbeck K, **Bansal A** (2015). Adherence to ASCO/ABIM Choosing Wisely Initiative among cancer patients enrolled in a large regional commercial health insurer. *Journal of Oncology Practice*, 11(4): 338-43.
21. Shiovitz S, **Bansal A**, Burnett-Hartman AN, Karnopp A, Adams SV, Korenbot C, Warren-Mears V, Ramsey SD (2015). Cancer-directed therapy and hospice care for metastatic cancer in American Indians and Alaska Natives. *Cancer Epidemiology, Biomarkers & Prevention*, 24(7): 1138-1143.
22. Solorio R, **Bansal A**, Comstock B, Ulatowski K (2015). Impact of a chronic care coordinator intervention on diabetes quality of care in a community health center. *Health Services Research*, 50(3): 730-749.
23. Danielson J, Kim A, **Bansal A**, Weber S (2014). An Interprofessional education fingerprint for APPEs: Developing metrics for collaborative interactions. *AACP Experiential Education (Interprofessional Education Integration - Best Practices)*, 2(1): 1.
24. Shankaran V, Mummy D, Kopel L, **Bansal A**, Mirich DK, Yu E, Morlock R, Ramsey SD (2014). Survival and lifetime costs associated with first-line bevacizumab use in older patients with metastatic colorectal cancer. *The Oncologist*, 19(8): 892-899.
25. Khandelwal N, Hough CL, **Bansal A**, Veenstra DL, Treggiari MM (2014). Long-term survival in patients with severe acute respiratory distress syndrome and rescue therapies for refractory hypoxemia. *Critical Care Medicine*, 42(7): 1610-1618.
26. Weinert C, Cudney S, Comstock B, **Bansal A** (2014). A computer-based intervention for illness self-management among rural women with chronic health conditions: A randomized parallel-group study. *Canadian Journal of Nursing Research*, 46(1): 26-43.
27. Vanderhoeven J, McAdams RM, Beyer RP, Bammler TK, Farin FM, Rajagopal L, Kapur RP, **Bansal A**, Spencer M, Deng M, Gravett MG, Rubens CE, Adams Waldorf KM (2014). Group B streptococcal infection of the choriodecidua induces dysfunction of the cytokeratin network in amniotic epithelium: A pathway to premature membrane rupture. *PLoS Pathogens*, 10(3): e1003920.
28. Novotny SC, Perusek GP, Rice AJ, Comstock BA, **Bansal A**, Cavanagh PR (2013). A harness for enhanced comfort and loading during treadmill exercise in space. *Acta Astronautica*, 89: 205-214.
29. Salk JJ, **Bansal A**, Lai LA, Crispin DA, Ussakli CH, Horwitz MS, Bronner MP, Brentnall TA, Loeb LA, Rabinovitch PS, Risques RA (2013). Clonal expansions and shortened telomeres in non-dysplastic mucosa are associated with neoplasia in early-onset, but not late-onset, ulcerative colitis. *Inflammatory Bowel Diseases*, 19(12): 2593-2602.
30. **Bansal A**, Pepe MS (2013). Estimating improvement in prediction with matched case-control designs. *Lifetime Data Analysis*, 19(2): 170-201.
31. **Bansal A**, Pepe MS (2013). When does combining markers improve classification performance and what are implications for practice? *Statistics in Medicine*, 32(11): 1877-1892. (Young Investigator Award, Section on Statistics in Epidemiology, American Statistical Association)
32. Kerr KF, **Bansal A**, Pepe MS (2012). Comment on 'Interpreting incremental value of markers added to risk prediction models'. *American Journal of Epidemiology*. 176(6): 482-487.
33. Larson-Meyer DE, Palm S, **Bansal A**, Austin KJ, Hart AM, Alexander BM (2012). Influence of running and walking on hormonal regulators of appetite in women. *Journal of Obesity*, vol. 2012, Article ID 730409.

34. Adams Waldorf KM, Gravett MG, McAdams RM, Paoella LJ, Gough GM, Carl DJ, **Bansal A**, Liggitt HD, Kapur RP, Reitz FB, Rubens CE (2011). Choriodecidual group B streptococcal inoculation induces fetal lung injury without intra-amniotic infection and preterm labor in *Macaca Nemestrina*. *PLoS ONE*, 6(12): e28972.
35. Weinert C, Cudney S, Comstock B, **Bansal A** (2011). Computer intervention impact on psychosocial adaptation of rural women with chronic conditions. *Nursing Research*, 60(2), 82-91.
36. Soltis G, Hust M, Ng K, **Bansal A**, Field J, Dübel S, Cha S, Wiersma EJ (2007). On the influence of vector design on antibody phage display. *Journal of Biotechnology*, 127(4), 26-37.

SUBMITTED MANUSCRIPTS (*TRAINEE AUTHOR, +SENIOR AUTHOR)

1. **Bansal A**, Basu A. Cure fraction modeling and optimal follow-up. Invited article for themed section on *Value of Curative Therapies, Value in Health*, revision under review.
2. **Bansal A**, Sullivan SD, Lin V, Purdum A, Navale L, Cheng P, Ramsey SD. Estimating long-term survival for patients with relapsed or refractory aggressive Non-Hodgkin Lymphoma treated with Anti-CD19 Chimeric Antigen Receptor T-cell therapy: A comparison of standard and mixture cure models. *Medical Decision Making*, revision under review.
3. **Bansal A**, Saha-Chaudhuri P, Liang CJ, Heagerty PJ. Dynamic placement values: A basis for evaluating prognostic potential.
4. **Bansal A**, Heagerty PJ. Using incident cases to evaluate the time-varying performance of baseline prognostic markers for survival outcomes. *Invited article, Diagnostic and Prognostic Research*.
5. **Bansal A**, Liu Y, Binkley J, Emond M, Brentnall T, Risques RA. Mitochondrial dysfunction is associated with cancer progression in ulcerative colitis: Validation using NanoString expression analysis.
6. **Bansal A**, Mayer-Hamblett N, Goss CH, Heagerty PJ. Evaluating the value of updating markers over time for risk prediction in cystic fibrosis. Preprint: <http://arxiv.org/abs/1706.09602>.
7. Higa S*, Devine EE, Baradaran S, Patel V, **Bansal A**+. Psoriasis treatment patterns: A retrospective claims study.
8. Adamson BJ*, Radich JP, **Bansal A**+. An approach for developing microsimulation models that incorporate longitudinal biomarker trajectories and dynamic decision making. (Lee B. Lusted Student Prize Finalist and Podium Presentation, Society for Medical Decision Making Annual Meeting 2017).
9. Suh K*, Shankaran V, **Bansal A**+. Surveillance testing trends and value in colorectal cancer patients.
10. Canestaro WJ*, Devine EB, **Bansal A**, Sullivan SD, Carlson JJ. Adjustment of publication bias via a cumulative meta-analytic framework.
11. Roth JA, Sullivan SD, Lin V, **Bansal A**, Purdum A, Navale L, Cheng P, Ramsey SD. Cost-Effectiveness of Axicabtagene Ciloleucel for Adult Patients with Relapsed or Refractory Large B-Cell Lymphoma in the United States.
12. Miles RC, Lee CI, Sun Q, **Bansal A**, Fedorenko C, Specht JM, Ramsey SD, Lyman GH, Lee JM. Predictors of advanced imaging use during breast cancer surveillance.
13. Goulart B, Silgard ET, Baik CS, **Bansal A**, Sun Q, Durbin EB, Hands I, Kavuluru R, Shah D, Arnold SM, Ramsey SD, Schwartz S. Validity of Natural Language Processing for Ascertainment of EGFR and ALK Test Results in SEER Cases of Stage IV Non-Small Cell Lung Cancer.
14. Lockhart CM*, **Bansal A**, Hansen RN. Value Assessment of Orphan Drugs and Treatments for Rare Diseases.

MANUSCRIPTS IN PREPARATION (*TRAINEE AUTHOR, +SENIOR AUTHOR)

1. **Bansal A**, Basu A. Value of information methods for optimal timing of biomarker collection.
2. **Bansal A**, Heagerty PJ, Steuten L. Statistical methods for developing cost-effective biomarker combinations for disease diagnosis and prognosis.

3. Suh K*, Li L, Fedorenko C, Shankaran V, Ramsey SD, **Bansal A+**. Surveillance testing trends and survival outcomes in colorectal cancer patients.
4. Shapouri S*, Devine EE, **Bansal A+**. Predicting hospitalizations and returns to the emergency department 30-days post emergency department discharge among patients with Acute Bacterial Skin and Skin Structure infections.
5. **Bansal A**, Basu A. Trouble with the curve: Economic implications for modeling and extrapolating survival curves with unusual bend.
6. Suh K*, Bennette CS, **Bansal A+**. Profiling cancer clinical trials participation by facility designation, 2014-2015.
7. Wang WJ, **Bansal A+**. Disparities in the Availability of Cancer Clinical Trials: A Multi-level Analysis.
8. Wang WJ, Suh K, **Bansal A+**. Disparities in the Availability of Cancer Clinical Trials: Integrating information from multiple data sources using advanced record linkage methods.
9. Wang WJ, Bennette CS, Ramsey SD, McDougall JA, **Bansal A+**. Geographic disparities in the availability of cancer clinical trials.
10. **Bansal A**, Radich JP. Early prediction of treatment response in CML patients using the rate of decline of BCR-ABL transcript levels as a prognostic marker.
11. Ramsey SD, **Bansal A**, Dong X*, Hall IJ, Smith JL, Ekwueme DU, Koepl LM, Fedorenko CR, Thompson IM, Penson DF. A Comparison of Quality of Life, and Satisfaction with the Health Care System among Long Term Survivors of Prostate, Bladder, Colorectal, and Lung Cancer
12. McDermott CL*, **Bansal A**, Ramsey SD, Lyman GH, Sullivan SD. Imaging, treatment, and mortality in lung cancer patients in Washington State, 2002-2010.
13. Canestaro WJ*, **Bansal A**, Devine EB, Sullivan SD, Carlson JJ. Framework for Assessing the Impact of unpublished Research (FAIR Framework): A proposed framework with demonstration in two notable cases.
14. Liu Y, **Bansal A**, Binkley J, Emond M, Brentnall T, Risques RA. The field effect of mitochondrial dysfunction in ulcerative colitis cancer: a study using NanoString expression analysis.
15. Suh K*, Basu A, Yeung K, **Bansal A**, Garrison LP, Carlson JJ. Concept analysis on cures for illnesses with high disease burden: A systematic review.
16. Kim R*, Fisher L*, Karnopp A, Heagerty PJ, **Bansal A**, Cheng GS, Jackson L, Ramsey SD, Goss CH. Variations in treatment decisions in non-tuberculous mycobacteria infection in the United States, 2007-2013.

BOOK CHAPTERS

1. **Bansal A**, Pepe MS (2013). Estimating improvement in prediction with matched case-control designs. In MLT Lee, M Gail, G Satten, T Cai, A Gandy, R Pfeiffer (Ed.) Risk assessment and evaluation of predictions. Springer.

GRANT SUPPORT

Active

1. **Personalized Risk Adaptive Surveillance in Cancer (PRAISE)** (40%)
 Role: PI
 Sponsor, Type: NIH - NCI, R37 Period: 8/1/2018 – 7/31/2025
2. **Disparities in the Availability of Cancer Clinical Trials: A Multi-level Analysis** (19%)
 Role: PI
 Sponsor, Type: NIH - NCI, R03 Period: 9/1/2017 – 8/31/2019
3. **Oncology Value-Based Pricing Project** (10%)
 Role: Co-PI
 Sponsor, Type: Bristol Myers Squibb Period: 6/1/2018 – 5/31/2019

4. **Cost-Effectiveness Analysis of Stem Cell Transplant in Older MDS Patients** (7%)
 Role: Site PI
 Sponsor, Type: NIH, R01 Period: 12/1/2014 – 11/30/2018
5. **Ancillary Cost-Effectiveness Analysis** (7%)
 Role: Site PI
 Sponsor, Type: NIH, R01 Period: 8/1/2016 – 7/31/2017
6. **A Pragmatic Trial to Improve Colony Stimulating Factor Use in Cancer** (10%)
 Role: Co-I (PI: Ramsey, Fred Hutchinson Cancer Research Center)
 Sponsor, Type: PCORI Period: 7/1/2015 – 3/31/2019
7. **Community Pharmacist Intervention to Close Statin Gaps in Diabetes Care** (2.5%)
 Role: Co-I (PIs: Odegard, Bacci, Department of Pharmacy, University of Washington)
 Sponsor, Type: NACDS

Pending

1. **Improving Colonoscopy Surveillance in Ulcerative Colitis by Next-Generation Sequencing Detection of Preneoplastic Clones** (10%)
 Role: Co-I (PI: Risques, Department of Pathology, University of Washington)
 Sponsor, Type: Crohn's and Colitis Foundation of America Period: 7/1/2019 – 6/20/2020

Recently Completed

2. **Comparative effectiveness of molecular response guided sequential treatment strategies in chronic myeloid leukemia** (25%)
 Role: PI
 Sponsor, Type: PhRMA Foundation, Research Starter Grant Period: 7/1/2015 – 6/31/2017
3. **Hormonal Regulation of Human CYP3A** (10%)
 Role: Co-I (PI: Thummel, Department of Pharmaceutics, University of Washington)
 Sponsor, Type: NIH - NIGMS, R01 Period: 7/1/2014 – 6/30/2018
4. **Mitochondrial Biomarkers for Early Detection of Cancer in Ulcerative Colitis** (10%)
 Role: Key Personnel (PI: Risques, Department of Pathology, University of Washington)
 Sponsor, Type: NIH - NCI, R01 Period: 4/1/2014 – 3/31/2018
5. **Implementing Value-Based Collaborations to Improve Immunizations** (5%)
 Role: Key Personnel (PI: Odegard, Department of Pharmacy, University of Washington)
 Sponsor, Type: NACDS Period: 7/1/2016 – 9/30/2017
6. **Patterns of Care and Costs Associated with Regorafenib Use in Metastatic Colorectal Cancer** (10%)
 Role: Co-I (PI: Shankaran, Fred Hutchinson Cancer Research Center)
 Sponsor, Type: Bayer Period: 6/1/2015 – 12/31/2017
7. **Assessing Molecular Profiling in Non-Small Cell Lung Cancer at the Population Level: A Validation Study of Natural Language Processing Algorithms for SEER** (10%)
 Role: Site PI (PI: Goulart, Fred Hutchinson Cancer Research Center)
 Sponsor, Type: Fred Hutchinson Cancer Research Center Period: 9/1/2015 – 8/31/2016
8. **Cost-effectiveness Analysis of an In-Home Telehealth Program for Veterans** (10%)
 Role: Co-I (PI: Hansen, Department of Pharmacy, University of Washington)
 Sponsor, Type: United States Department of Defense Period: 6/1/2015 – 2/27/2016
9. **A Multi-State Study of Cancer Treatment and Outcomes among American Indians** (10%)
 Role: Site PI
 Sponsor, Type: NIH, R01 Period: 7/31/2014 - 4/30/2015

10. **Impact of Bone Metastasis and Symptomatic Skeletal Events (SSEs) upon Survival in Prostate Cancer Patients with Bone Metastasis** (2.5%)
 Role: Site Co-PI (PI: Ramsey, Fred Hutchinson Cancer Research Center)
 Sponsor, Type: Bayer
 Period: 1/1/2015 – 6/30/2015

TEACHING: GRADUATE COURSES, UNIVERSITY OF WASHINGTON

Course Instructor

- Biost 512: Medical Biometry II 2017, 2018, 2019
 Topics covered: Multiple linear regression, including assumptions, transformations, outlier detection, dummy variables, and variable selection procedures, and an introduction to one-way and two-way analyses of variance. Examples drawn from the biomedical literature with computer assignments using R.

Course Master

- Pharm 597: CHOICE Graduate Seminar Winter 2016, Spring 2017, 2018-2019

Guest Lecturer

- Pharmacy Residents: Basic Statistical Analysis 2015, 2016
- Pharm 592: Pharmacy Practice IV: Design and Analysis of Medical Studies 2014
- Biost 578: Statistical Methods for the Evaluation of Biomarkers and Medical Tests 2011

Teaching Assistant, Department of Biostatistics, University of Washington

- Biost 508: Biostatistical Reasoning for the Health Sciences 2010
- Biost 512: Medical Biometry II 2009

TEACHING: SHORT COURSES

Methods for Developing and Evaluating Prediction Models for Dynamic Decision-Making

Topics covered: Model development using joint models and partly conditional models, model evaluation using measures of discrimination accuracy that are appropriate for survival outcomes.

- Co-Instructor, University of Washington Summer Institutes: Statistics for Clinical Research, Seattle WA 2017
- Co-Instructor, Society for Medical Decision Making Annual Meeting, Vancouver, Canada 2016

Survival Analysis

- Computer Lab Instructor, Erasmus Summer Programme, Erasmus University, Rotterdam, The Netherlands 2013

MENTORING

PhD Dissertation Committees

- Nathaniel Hendrix, CHOICE Institute Ongoing
- Anu Mishra, Department of Biostatistics Ongoing
- William Canestaro, CHOICE Institute Completed 2017
- Cara McDermott, CHOICE Institute Completed 2016

Masters Thesis Committees

- Sara Higa, CHOICE Institute (Chair) Completed 2018
- Sheila Shapouri, CHOICE Institute Completed 2017
- Amy Tung, CHOICE Institute Completed 2016
- Cate Lockhart, CHOICE Institute Completed 2016

Research Assistantships / Independent Research Projects Supervised

- Samantha Clark, CHOICE Institute April 2018 – Present
- Kangho Suh, CHOICE Institute September 2016 – Present

- Wei-Jhih Wang, CHOICE Institute June 2017 – Present
- Blythe Adamson, CHOICE Institute 2016 – 2017
 - Podium Presentation, Society for Medical Decision Making 2017
 - Lee B. Lusted Award Finalist, Society for Medical Decision Making 2017
- Xinyuan Dong, Department of Biostatistics 2015 – 2016
- Richard Kim, CHOICE Institute 2014
- Leigh Fisher, Department of Biostatistics 2014

Teaching Assistants Supervised

- Andrew Humbert, Department of Biostatistics 2018
- Xiudi Li, Department of Biostatistics 2018
- Steven Wang, Department of Biostatistics 2018
- David Clausen, Department of Statistics 2017
- Asad Haris, Department of Biostatistics 2017
- Jun Hwang, Department of Biostatistics 2017
- Austin Schumacher, Department of Biostatistics 2017

Academic Advising

- Samantha Clark, CHOICE Institute 2017 – Present
- Karen Guo, CHOICE Institute 2017 – Present
- Naomi Schwartz, CHOICE Institute 2018 – Present

Mentoring for Biostatistics Preliminary Exam

- Shalak Gunjal, CHOICE Institute 2018
- Nathaniel Hendrix, CHOICE Institute 2018
- Elizabeth Vodicka, CHOICE Institute 2014

ORAL PRESENTATIONS († UPCOMING PRESENTATION)

Invited Presentations

1. 3rd Seattle Symposium in Health Care Data Analytics 2018†
Statistical methods for developing prediction models for dynamic decision-making
2. Toronto Health Economics and Technology Assessment (THETA) Collaborative, Toronto, Ontario 2018
Value of information methods for optimal timing of biomarker collection
3. Joint Statistical Meetings, American Statistical Association, Baltimore, MD 2017
Session: Statistical Methods for Health Economics and Applied Econometrics in Health Policy
Statistical methods for developing cost-effective biomarker combinations for disease diagnosis and prognosis
4. International Biometric Society (Western North American Region) Annual Meeting, Santa Fe, NM 2017
Value of information methods for optimal timing of biomarker collection
5. School of Pharmacy All-School Faculty Meeting, University of Washington 2014
A statistically significant year
6. Cystic Fibrosis Biostatistics & Epidemiology Workshop, University of Washington 2014
Evaluating the value of updating markers over time for risk prediction of Cystic Fibrosis
7. Department of Pharmacy, University of Washington 2013
Using incident cases to evaluate prognostic markers with time-varying performance
8. Center for Devices and Radiological Health, Food and Drug Administration, Silver Spring, MD 2011
When Does Combining Markers Improve Classification Performance?
9. Center for Drug Evaluation and Research, Food and Drug Administration, Silver Spring, MD 2011
When Does Combining Markers Improve Classification Performance?
10. Department of Biostatistics, University of Washington 2010
Improvement in Performance by Combining Biomarkers in Diagnostic Medicine

Contributed Conference Presentations

11. Society for Medical Decision Making, Pittsburgh, PA 2017
Trouble with the curve: Economic implications for modeling and extrapolating survival curves with unusual bend
[Top-Rated Methods Abstracts Session]
12. Society for Medical Decision Making, Vancouver, Canada 2016
Value of information methods for optimal timing of biomarker collection
13. Joint Statistical Meetings, American Statistical Association, Seattle, WA 2015
Dynamic Placement Values: A Basis for Evaluating Prognostic Potential
14. American Society of Clinical Oncology Annual Meeting, Chicago, IL 2015
Financial insolvency as a risk factor for early mortality among patients with cancer
15. International Society for Pharmacoeconomic and Outcomes Research Annual Meeting, Philadelphia, PA 2015
Cure Models: Accounting for cured patients in economic evaluation
[Winner of New Investigator Podium Presentation Award]
16. Joint Statistical Meetings, American Statistical Association, Boston, MA 2014
Coupling model selection with evaluation in prognostic model development
17. Joint Statistical Meetings, American Statistical Association, Montreal, QC 2013
Using incident cases to evaluate prognostic markers with time-varying performance
18. Joint Statistical Meetings, American Statistical Association, Vancouver, BC 2010
Estimating the Improvement in Performance by Combining Biomarkers in a Two-Stage Study Design
19. International Biometric Society (Western North American Region) Annual Meeting, Seattle, WA 2010
When Does Combining Markers Improve Classification Performance?
[Student Oral Presentation 2nd Place Winner]
20. Joint Statistical Meetings, American Statistical Association, Washington DC 2009
Improvement in Performance by Combining Biomarkers in Diagnostic Medicine

Department Seminars

21. CHOICE seminar 2017
Overview of Research Activities
22. CHOICE seminar 2017
Value of information methods for optimal timing of biomarker collection
23. Department of Pharmacy Faculty Meeting, University of Washington 2015
Statistical methods for prognostic biomarkers: An application to lung transplantation in cystic fibrosis
24. Department of Biostatistics Student Seminar, University of Washington 2010
A Survey of Biomarker Theory and Practice for Early Detection of Cancer
25. Department of Biostatistics Student Seminar, University of Washington 2010
Improvement in Performance by Combining Biomarkers in Diagnostic Medicine

Selected Works-in-Progress Meeting Presentations

26. Centers for Comparative and Health Systems Effectiveness (CHASE), University of Washington 2016
(with Carrie Bennette) *Will there be enough patients? Informing cancer clinical trial accrual assessments*
27. Hutchinson Institute for Cancer Outcomes Research, Fred Hutchinson Cancer Research Center 2015
Biomarker-driven dynamic decision-making in CML
28. Centers for Comparative and Health Systems Effectiveness (CHASE), University of Washington 2015
(with Scott Ramsey) *Designing and implementing a PCORI-funded pragmatic, randomized trial of CSF use in cancer*
29. Centers for Comparative and Health Systems Effectiveness (CHASE), University of Washington 2015
Evaluating the value of updating markers over time for risk prediction of Cystic Fibrosis
30. Department of Biostatistics Biomarker & Longitudinal Data Working Group, University of Washington 2014
Coupling model selection with evaluation in prognostic model development

31. Department of Biostatistics Biomarker & Longitudinal Data Working Group, University of Washington 2013
Building webpages using HTML and CSS
32. Department of Biostatistics Biomarker & Longitudinal Data Working Group, University of Washington 2013
Using incident cases to evaluate prognostic markers with time-varying performance

SELECTED CONFERENCE POSTERS (*TRAINEE AUTHOR, +SENIOR AUTHOR)

1. Society for Medical Decision Making, Pittsburgh, PA 2017
Wang WJ*, Devine EE, **Bansal A**, White HS, Basu A. *Meta-analyzing count events over varying durations using the convoluted Poisson model: The case for post stroke seizures.*
[Lee B. Lusted Student Prize Finalist]
2. International Society for Pharmacoeconomics and Outcomes Research, Washington, DC 2016
Bansal A, Basu A. *Value of information methods for optimal timing of biomarker collection.*
[Winner of New Investigator Poster Presentation Award]
3. International Society for Pharmacoeconomics and Outcomes Research, Washington, DC 2016
Tung A*, Hepp Z, **Bansal A+**, Devine B+. *Characterizing healthcare utilization, direct costs, and comorbidities associated with Interstitial Cystitis: A retrospective claims analysis*
[Finalist for Poster Presentation Award]
4. Society for Medical Decision Making, St Louis, MO 2015
Bansal A, Mayer Hamblett N, Goss CH, Heagerty PJ. *A novel tool to evaluate the accuracy of predicting survival in cystic fibrosis.*
5. International Society for Pharmacoeconomics and Outcomes Research, Montreal, Quebec 2014
McDougall JA*, **Bansal A**, Blough DK, Fedorenko CR, Newcomb PA, Ramsey S. *Disparities in risk of bankruptcy among patients diagnosed with cancer.*

PROFESSIONAL ACTIVITIES & SERVICE

- Conference Organizer, International Conference on Health Policy Statistics 2020
- Member, ISPOR Statistical Methods in Health Economics and Outcomes Research Special Interest Group 2017 – Present
- Member, ISPOR Task Force on Time to Event Modeling 2017 – Present
- Member, SWOG 2015 – Present
- Member, Society for Medical Decision Making 2015 – Present
- Member, International Society for Pharmacoeconomics and Outcomes Research 2013 – Present
- Member, American Statistical Association 2010 – Present
- Member, International Biometric Society – Western North American Region 2008 – Present

Reviewer

- Biometrics, Statistics in Medicine, Biostatistics, SpringerPlus, Statistics and Computing, BMC Medical Research Methodology, Value in Health, Health Services Research

University of Washington

- School of Pharmacy: Curricular Evaluation Committee 2018
- School of Pharmacy: Curricular Innovation Committee 2017 – Present
- CHOICE Institute: Curriculum Committee 2016 – Present
- CHOICE Institute: Admissions Committee 2017, 2018
- CHOICE Institute: Annual Retreat Planning Committee, Faculty Advisor 2017
- Department of Pharmacy: Strategic Planning Committee 2017
- Department of Pharmacy: Merit Review Process Improvement Committee 2015
- Graduate School Representative, David Prince (Department of Biostatistics) 2015
- Graduate School Representative, Rui Zhang (Department of Biostatistics) 2014
- Department of Biostatistics: Member, Biomarker & Longitudinal Data Working Group 2013 – Present
- Department of Biostatistics: Organizer, Biomarker and Longitudinal Data Working Group 2012 – 2013

- Department of Biostatistics: Member, Randomized Clinical Trials Working Group 2010 – 2011
- Department of Biostatistics: Volunteer, Admitted Student Visit Days 2008 – 2010
- Department of Biostatistics: Organizer, Medical Diagnostics Working Group 2007 – 2009

University of Waterloo

- Executive Committee, Bioinformatics Club 2002 – 2006
- Student Orientation Leader 2003 – 2005