



SCHOOL OF PHARMACY

UNIVERSITY of WASHINGTON

Pharmaceutical Outcomes Research & Policy Program

Fall 2011



June 2011 PORPP Graduates and Faculty

1st Row: Justin Robertson, Catherine Corbell, Joanna Sanderson 2nd Row: Joseph Babigumira, Mindy Cheng, Cara McDermott 3rd Row: Lou Garrison, Vincent Lin, Beth Devine, Andy Stergachis, Brian Bresnahan 4th Row: Danny Shen, Tom Hazlet, David Blough, Sean Sullivan, David Veenstra, Josh Carlson

Congratulations to Recent Graduates

Master of Science Pharmaceutical Sciences

Justin Robertson, B.S. 2006 Baylor University, M.A. 2009, University of Washington
Masters Thesis: *"An Economic Analysis of Everolimus for Metastatic Renal Cell Carcinoma"*
Committee Chair: Louis Garrison, Jr., PhD

Vincent Lin, B.S. 2005, University of California, Irvine; Pharm.D. 2010, Touro University
Masters Thesis: *"Health Care Utilization and Health Related Quality of Life for Patients After Laparoscopic Adjustable Banding Surgery"*
Committee Chair: Sean Sullivan, PhD

William Wong, B.A. 2003, M.S. 2004, Pharm.D. 2009, University of California, San Diego
Masters Thesis: *"Cost-Effectiveness Assessment and Value of Research Analysis of Oncotype DX Testing to Guide Adjuvant Chemotherapy Treatment Decisions in Hormone Receptor-(+), Node-(+) Early Stage Breast Cancer"*
Committee Chair: David Veenstra, PharmD, PhD

Doctor of Philosophy Pharmaceutical Sciences

Joseph Babigumira, M.B.Ch.B 2000, Mbarara University; M.S. 2004, Case Western Reserve University
Dissertation: *"Costs of Induced Abortion and Cost-Effectiveness of Universal Access to Modern Contraceptives in Uganda"*
Committee Chair: Louis Garrison, Jr., PhD

Mindy Cheng, B.S. 2000, University of Michigan; M.S. 2004, California State University, East Bay
Dissertation: *"Oncology Orphan Drugs: An Evidence Review, Mixed Treatment Comparison, and Cost-effectiveness Analysis"*
Committee Chair: David Veenstra, PharmD, PhD

Catherine Corbell, B.Sc. 2000, University of Nairobi, Kenya; M.Sc. 2005, University of London, England
Dissertation: *"An Epidemiologic Study Examining the Risk of Anemia Associated with Zidovudine-Based Highly Active Antiretroviral Therapy in Namibia"*
Committee Chair: Andy Stergachis, PhD

September, 2011

Friends,

The University of Washington is a special place. The quality of students, faculty and staff at the UW is highly regarded and amongst the very best in the world. Most of you reading this newsletter have some connection to Seattle or the UW and you know this to be true. This past year, the UW was ranked 16th among all University's worldwide and 3rd worldwide in the pharmaceutical sciences. Our ranking in the U.S. is 4th amongst all publicly funded Universities. This is rarified air. Like all rankings of this type, there is some subjectivity involved, but we think this recognition reflects the hard work and dedication of our faculty, students, staff and alumni.

In this edition of our annual newsletter to friends, colleagues and alumni, we highlight a few of the achievements of our students and faculty that have, no doubt, contributed to the success of the UW. You will quickly appreciate that this talented group of scientists and scientists-in-training are busy working on problems of great importance to the health care system or developing novel research techniques and tools that support their work and the work of other scientists. What cannot be overlooked is that these accomplishments come amidst an environment of dwindling resources to support graduate and professional education and research. I hope you will see from this newsletter why I am rightfully and unabashedly proud of our students, staff and faculty.

Sean D. Sullivan, PhD
Professor and Director

Incoming Students—Ph.D.

Caroline Bennette, MPH

Caroline worked in the Department of Epidemiology and Biostatistics at Memorial Sloan-Kettering Cancer Center from 2007 to 2011. During this time she also completed a Masters of Public Health at Columbia University. While at MSKCC, Caroline authored several papers that evaluated the health outcomes of screening and treatment options for prostate, kidney and bladder cancers. Building upon this work, she intends to focus her graduate studies on the cost-effectiveness of cancer prevention and control strategies, with the goal of informing decision making in health policy and improving population health. Caroline is very excited about joining PORPP and the strong network of faculty and graduate students pursuing cost-effectiveness research.

Amy Cizik, MPH

Amy received her MPH from the University of Kansas in 2004. Since then she has been working as a research scientist in the Department of Orthopaedics and Sports Medicine at UW. Her work has been in clinical and surgical outcomes following treatment for spine and sarcoma conditions. She has a strong interest in pharmacoepidemiology and comparative-effectiveness research as it relates to the use of orthopaedic devices. With training from the PORPP program, Amy looks forward to becoming an independent scientific investigator in both orthopaedic and device-related surgical outcomes and using cost-effectiveness and prediction data models to inform health policy and health economic decision-making for orthopaedic care. She hopes to use the knowledge gained from this program to partner with surgeons in establishing clinical practice guidelines for the appropriate application of medical devices and to ultimately improve patients' quality of life.

Kai Yeung, PharmD

Kai just graduated from the PharmD program at USC. Through his work experiences, Kai has cultivated a keen interest in the expanded use of evidence and analytics in decision making, having worked for: Kaiser's Drug Information Services, AHRQ, Tufts University's CEA Registry and most recently the NICE, UK. Through his involvement in professional organizations such as ISPOR, AMCP, SMDM and CSHP, Kai is preparing to publish or has published, posters, podium presentations, and articles, including one

entitled, "*Cost-Utility Analysis of the Use of Romiplostim versus Splenectomy in the Treatment of Chronic Refractory Immune Thrombocytopenic Purpura*" which received the best student poster award at AMCP's 2011 Annual Meeting. In coming to Seattle, Kai hopes to expand his analytic skill set and receive mentorship from PORPP faculty to develop a research agenda that uses health economics to better inform health care decision making.

M.S.

Richard Kim, MD

Richard is currently a 2nd year pulmonary/critical care fellow at UW, and 1st year graduate student in the PORPP program. He works with Scott Ramsey at the SCCA/FHCRC on the cost effectiveness of various aspects of lung cancer diagnosis. He also maintains a general pulmonary clinic at Harborview Medical Center. He hopes to establish an academic career in comparative-effectiveness research in pulmonary and critical care medicine. Richard maintains a strong interest in global health issues, and is involved in INTERSECT, a group of physician-scientists at UW working on issues of respiratory disease and critical care in low-resource settings. Previously, he was involved in clinical studies of pulmonary non-tuberculous mycobacteria infection at the NIH.

Post-Doctoral Fellows: Research & Projects

Laurie Gold, PhD

ADVICE Post-Doctoral Fellow

Laurie joined the Advancing Innovative Comparative Effectiveness research (ADVICE) project in January 2010 and is working on a study to determine whether the use of MRI following diagnosis of breast cancer affects outcomes such as mastectomy rates, cancer treatment patterns, and costs related to breast cancer. She is also working with the Surgical Clinical Outcomes Assessment Program (SCOAP) to determine whether a quality improvement initiative in some hospitals in Washington State is reducing costs of surgical procedures. Laurie's dissertation work in the Department of Epidemiology at the UW focused on whether occupational exposures to chlorinated solvents increased the incidence of multiple myeloma. She also has performed research on the epidemiology of cardiac arrests with the Emergency Medical Services division of Seattle/King County Public Health.

Vincent Lin, PharmD, MS**Allergan Post-Doctoral Fellow 2010-2012**

Vincent Lin is in his second year of fellowship working in the Global Health Outcomes Strategy Research (GHOSR) at Allergan, Inc. He completed his Master's degree with the thesis titled *"Patients' Experience after Laparoscopic Adjustable Gastric Banding: Weight-change, Co-morbidities, Complications, Adjustments, and Health-Related Quality of Life"*. Currently Vincent is also working with professor Beth Devine in applying indirect treatment comparison (ITC) and network meta-analysis in autoimmune diseases.

Kyle Ross, PhD**Eli Lilly Post-Doctoral Fellow 2009-2011**

Kyle completed the second year of his Eli Lilly Post-Doctoral Fellowship and accepted a position at the University of Arkansas, Little Rock, as an Assistant Professor in Economics at the College of Business.

Joanna Sanderson, PharmD**Allergan Post-Doctoral Fellow 2011-2013**

Joanna is the current Allergan fellow. She completed her PharmD degree this year at the University of Washington. She is currently studying the burden of illness and use of prophylaxis therapy in chronic and episodic migraine. Joanna has always had a general interest in research, but her attention was drawn to pharmacy outcomes research during a clinical rotation at Group Health Cooperative during her final year of pharmacy school. She is looking forward to learning more about outcomes research and finding a focused area of interest during her first year in the PORPP program.

Rahber Thariani, PhD**Post-Doctoral Fellow CANCERGEN****PhRMA Foundation Post-Doctoral Fellow**

Rahber joined the PORPP program as a senior fellow in December 2009 and is working on comparative effectiveness and clinical trial development in cancer genomics alongside David Veenstra, Lou Garrison and Scott Ramsey. His dissertation work in Bioengineering at the UW focused on the development of cost-effective point-of-care diagnostics utilizing novel optical techniques. He has also collaborated with the UW Business School in projects involving technology development, venture capital and entrepreneurship. His interests include diagnostics and diagnostic-drug combinations, value of research techniques, and impact of incentives in healthcare.

David van der Goes, PhD**Pfizer Post-Doctoral Fellow 2010-2012**

David is in the second year of his PORPP-Pfizer postdoc. He spent the summer of 2011 working at Pfizer headquarters in New York City. While at Pfizer he worked on a number of projects, including validation of a discrete event simulation model for smoking cessation; this work is ongoing. Currently, David is also involved in research projects on pain, migraine headaches, and epilepsy. David is co-author of the paper *"Effect of State Health Insurance Mandates on Employer-provided Health Insurance"* (Eastern Economic Journal, 31 January 2011, AOP). David has a B.A. in economics from Temple University and during the two years prior to coming to the UW, he taught full-time at Muhlenberg College.

Current Students—Research & Projects**Maria Agapova, MPH**

Maria spent the first year at PORPP working with Brian Custer to finalize a cost-effectiveness analysis of a pathogen reduction technology for a country-wide blood safety initiative in Poland. Maria continues her work on a meta-analysis of the survival benefit of early, aggressive, fresh, frozen plasma transfusion in the massive transfusion setting. This summer, Maria began work with Anirban Basu on a cost-minimization project evaluating two cervical cancer strategies for the country of Ireland and with David Veenstra adapting an existing cost-effectiveness model of warfarin genetic testing.

Rafael Alfonso, MD, MSc

In January 2011, Rafael successfully completed his General Examination and is currently working to complete his dissertation on the Economic Impact of Bariatric Surgery. Previous work, with the BOOM collaborative related to this topic, have been presented in different scientific meetings: at the 4th Western Pharmacoeconomics Conference in Seattle, the 16th ISPOR Annual Meeting in Baltimore, and accepted to be presented to the upcoming 29th Obesity. Additionally, five different manuscripts from this project are in preparation to be published or submitted to scientific journals in the upcoming months. He also helped to organize the 4th Western Pharmacoeconomics Conference in March 2011, as the Student Co-chair, and presented a Workshop on Indirect and Mixed Treatment Comparisons (ITC/MTC) during the same event. At the 16th ISPOR Annual Meeting in Baltimore, he presented 3 more posters on the Cost-effectiveness (CE) of Biologic therapies for Rheumatoid Arthritis in Colombia, Venezuela, and the Cost-Effectiveness of different Screening strategies for diabetes in Colombia. In the upcoming 3rd ISPOR Latin America Conference, in Mexico, he will be instructor of a Short course in Utility Measurement, and will participate presenting: 2 Workshops, 2 Podium sessions, and 3 Posters. The topics include: ITC/MTC, Lack of information to develop Economic Evaluations in LA, CE of Dabigatran in Total Hip/Knee replacement, CE of Dabigatran in Atrial Fibrillation, Burden of Illness of Neuroendocrine Tumors (NET), CE of Octretide for NET, and CE of abatacept vs. tocilizumab in Venezuela.

In September, Rafael will launch the new ISPOR Distance Learning Programs in Spanish and Portuguese, which he coordinated. As a result of this work, he was recently elected as the Chair of the Advisory Board of the Latin American Consortium of ISPOR 2012-2014. He continues to give conferences and trainings at scientific meetings in the Latin America region.

Preeti Bajaj, BS

Preeti has completed her second year in the PORPP program, and is currently doing an internship with Novartis' Health Economics group, where she is helping to develop early economic models and value stories for pipeline molecules in the Cardiovascular & Metabolism therapeutic area. This past year, Preeti has been working on a risk-benefit assessment with Dave Veenstra to assess the utility of the Factor V Leiden genetic test in pregnant women with a history of recurrent pregnancy loss. She will be presenting her work at this year's Society for Medical Decision Making annual meeting.

Katie Gries, PharmD, MS

Katie just finished her first year of the PhD program. She finished her short proposal titled; *Comparison of Prostate Cancer Specific Health States and Generic Health States and Preferences for Medication Attributes for Non-Metastatic Prostate Cancer Therapies*. Katie contributed to work that was presented as a poster at the ISPOR annual meeting in Baltimore, in May 2011: *“Psychometric Evaluation of the National Eye Institute Visual Function Questionnaire 25 and the Visual Function Questionnaire Utility Index in Patients with Non-Infectious Intermediate and Posterior Uveitis*. Katie was accepted into the Biobehavioral Cancer Prevention and Control Training Program.

Ryan Hansen, PharmD

Ryan has been working on disease modeling in a variety of therapeutic areas over the past year. He was a co-author of three posters on two different indications for onabotulinum-toxin A at the International Society for Pharmacoeconomics and Outcomes Research 16th International Meeting in Baltimore, MD this past May. He has also been actively building a novel chronic obstructive pulmonary disease population model with Sean Sullivan and Vincent Lin.

On the dissertation front, Ryan also successfully completed his General Examination this past school year and is in the process of acquiring the data to execute his research. The title of his dissertation is *“The association between sedative hypnotic insomnia treatments and motor vehicle crashes”*. Working with his committee: Sean Sullivan, Denise Boudreau, Beth Ebel, David Grossman and Thomas Koepsell, he will be linking Group Health medical and pharmacy records with Washington State Department of Transportation motor vehicle crash records in order to perform a comparative safety analysis of three medications used to treat insomnia.

Norio Kasahara, MPH

Since March 2011, Norio has been working for the Afghanistan Ministry of Public Health and Japan International Cooperation Agency on a short-term basis. He is in the process of identifying a dissertation topic in the area of global health.

Hiep Nguyen, MPH

Hiep is starting his third year of the PhD program. Last year he conducted a meta-analysis on the efficacy of self-management educational intervention in modifying health outcomes for children with asthma. He presented his work as a poster: *“Effects of educational interventions for self-management of asthma in children and adolescents: An updated systematic review and meta-analysis”*, at the ISPOR meeting in Baltimore, in May 2011. He is also an author on a poster, entitled *“Exploring indirect effects of comparative effectiveness in a Cochrane review”*, that was recently accepted at the 2011 Cochrane Colloquium, which will be held in Madrid, Spain in October 2011. The study explores the feasibility of examining indirect effects in a Cochrane meta-analysis where no direct comparisons are reported in the literature and only subgroup analyses have previously been reported.

Justin Robertson, MS

This past year, Justin has worked with Lou Garrison and other collaborators on a benefit-risk assessment for the diabetes drug exenatide. Justin presented a poster on this work *“Using Health Outcomes Modeling to Assess the Benefit-Risk Profile of Exenatide Once-Weekly Versus Insulin Glargine for Patients*

With Type 2 Diabetes” at the UW Department of Health Services' 1st Annual Research Meeting in June 2011. He also was a coauthor on the manuscript *“Economic Evaluation of Everolimus versus Sorafenib for the Treatment of Metastatic Renal Cell Carcinoma after Failure of First-Line Sunitinib”* (Value in Health, epub July 2011). This summer, Justin completed his master's thesis *“An Economic Analysis of Everolimus for Metastatic Renal Cell Carcinoma”*. Justin's future plans are to continue to work in the Department of Economics at the University of Washington where he is a fifth-year PhD student.

Joshua Roth, MHA

Over the past year, Josh was the lead author on manuscripts titled *“The Prognostic Role of ERCC1 in Advanced Non-Small Cell Lung Cancer: A Systematic Review and Meta-Analysis”* (Clinical Lung Cancer, epub, June 2011) and *“Cost-Effectiveness of Gemcitabine+Cisplatin vs. Gemcitabine Monotherapy in Advanced Biliary Tract Cancer”* (Journal of Gastrointestinal Cancer, epub, January 2011). He also had podium presentations at the 2011 Annual International Meeting of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) and the 2011 Annual World Conference on Lung Cancer, as well as having other abstracts accepted to the 2011 meeting of the American Society for Clinical Oncology (ASCO), 2011 International meeting of the Society for Medical Decision Making, the 2010 San Antonio Breast Cancer Symposium, and the 2010 European Congress of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR).

Josh is currently working on completing his dissertation, which is titled *“Comparative Effectiveness Approaches to Evaluate Pharmacogenomic Technology: The Cases of Warfarin Pharmacogenomics, ERCC1 Testing in Non-Small Cell Lung Cancer, and Gene Expression Profiling in Early-Stage Breast Cancer”*. His dissertation committee includes David Veenstra (chair), Scott Ramsey, Denise Boudreau, Josh Carlson, and Will Welton; and his work is supported in part by the 2011 PhRMA Foundation pre-doctoral fellowship in comparative effectiveness research and the 2010 American Foundation for Pharmaceutical Education (AFPE) pre-doctoral fellowship in pharmaceutical science. He anticipates graduating in June of 2012, and is currently in the process of exploring a variety of potential career paths.

Cara McDermott, PharmD

This past year Cara has worked on a review of cholinesterase inhibitors with Shelly Gray, and has continued work with Brian Bresnahan on a review of PET in oncology. She has also continued her work with Scott Ramsey's group. She has been awarded a Huckabay Fellowship to create and teach a palliative care module for PharmD students at the UW School of Pharmacy.

Veena Shankaran, MD

Veena is currently a member of the medical oncology faculty at UW/SCCA/FHCRC, with a specific focus in gastrointestinal malignancies. She joined the PORPP masters program in 2010 with the ultimate goal of developing an academic research career in cancer pharmacoeconomics and comparative effectiveness. Her primary mentor is Scott Ramsey. Currently Veena is working on a project exploring patterns of treatment in older patients with metastatic colorectal cancer using the SEER-Medicare database, focusing on adverse

events associated with newer agents. Additionally, Veena has recently completed a project exploring financial hardships for patients undergoing chemotherapy for localized colon cancer—over 500 colon cancer patients in the Puget Sound region were approached to participate in this survey-based study. In the past year, Veena presented the following abstracts: *‘Patterns of care and survival trends in elderly metastatic colorectal cancer patients: A SEER-Medicare Analysis’* at the 2011 Gastrointestinal Cancers Symposium in San Francisco, CA; *‘Survival Trends and Patterns of Chemotherapy Use in Elderly Metastatic Colorectal Cancer Patients’* at the 2011 American Society of Clinical Oncology Annual Meeting in Chicago, IL; *‘Trends in Survival and Chemotherapy Usage in Elderly Patients with Metastatic Colorectal Cancer (mCRC)’* is an upcoming poster presentation at the European Society of Medical Oncology conference in Stockholm, Sweden Sept. 2011.

Jonathan Watanabe, PharmD, MS

Jonathan continues his dissertation research on the impact of Medicaid feedback reports on prescriber behavior in Washington state. He was an author on three manuscripts in the last year featured in the journals *Drugs and Aging*, *Current Medical Research and Opinion*, and *The American Journal of Pharmacy Benefits*. He served as Student Co-Chair of the Western Pharmacoeconomics Conference hosted by the University of Washington in Spring 2011. Jonathan was the recipient of a High-Quality Peer Review Recognition from the *Journal of Managed Care Pharmacy* in Winter 2010. He was co-author on the poster *“Impact of gaba-ergic medications on narcotic analgesic use in neuropathic patients”* that received the President’s Research Initiative at the American Association of Neuromuscular and Electrodiagnostic Medicine Annual Meeting in October 2010. He also served as a speaker for the continuing education lecture: *“Refractory idiopathic and neurogenic detrusor overactivity: case studies*

of localized treatment modalities” at the American Urological Association Annual Meeting in May.

Heidi Wirtz, PharmD, MS

Heidi continues to pursue her interests in pharmacoepidemiology research. This past year, she conducted a population-based study using automated health plan data and patient self-report to provide detailed information on acetaminophen (APAP) use, awareness around APAP-related toxicity, and avenues for receiving educational interventions aimed at reducing APAP overdose. Heidi is currently working with Denise Boudreau at the Group Health Research Institute to complete her dissertation proposal to assess second breast cancer events in relation to frequent antibiotic use, and to develop a framework for evaluating detection bias in breast cancer studies.

Annual PORPP Retreat

On May 6, 2011, over thirty PORPP students, faculty and staff participated in an all day educational retreat, organized by PhD student Heidi Wirtz, and Professor Sean Sullivan and held at the Talaris Conference Center.

The overall theme for this year’s retreat was “Getting Where You Want To Go”. In the morning, both faculty and students participated in a workshop given by Valerie Manusov, PhD, from the Department of Communications who spoke on “Improving Professional Communication Skills”. In the afternoon, the students and faculty split into their own groups. The students participated in two sessions. The first session detailed how to write a professional resume, and the second session focused on negotiating job opportunities. Both sessions were taught by Kate Duttro, PhD, who owns her own consulting firm, Career Change for Academics. The students were very impressed with the fresh ideas and insight that Dr. Duttro provided. The faculty participated in a work-



2011 PORPP Retreat

1st Row: Preeti Bajaj, Shelly Gray, Katie Gries, William Wong, Maria Agapova, Cara McDermott, Bruce Wang, Vincent Lin, Paul Kraegel, Rafael Alfonso, Penny Evans, Tom Hazlet, Brian Bresnahan 2nd Row: Lou Garrison, Norio Kasahara, Jon Watanabe, Mindy Cheng, Josh Roth, Kyle Ross, Bernardo Goulart, David van der Goes, Justin Robertson, Ryan Hansen, Josh Carlson, David Veenstra, Sean Sullivan, Rahber Thariani, Heidi Wirtz, David Blough.

shop on mentoring, facilitated by Rebecca Aanerud, PhD, Assistant Dean, UW Graduate School Communications. The day wrapped up with revelations about PORPP students, faculty and staff that had folks guessing just who had been born in Rio de Janeiro, Brazil (and no, it wasn't Bernardo Goulart!), who had been held up at gunpoint, who had been chased by crazy motorcyclists in Morocco, and who had met and talked with Fidel Castro! Plus many more "little known facts" about our friends and colleagues. Students and faculty alike look forward to our annual retreats, as they provide a fun, collegial atmosphere where timely and specific topics are discussed in a beautiful setting.

Student & Post-Doc Recent Publications

Rafael Alfonso

Cheng MM, Alfonso R, Best JH, Garrison LP, Bruhn D, Veenstra DL. The economic value of reducing medication dosing frequency with drug delivery technologies: an evidence assessment. *Journal of Medical Economics*, 2010; 13 (2): 193-202.

Laurie Gold

Ajam K, **Gold LS**, Beck SS, Damon S, Phelps R, Rea TD. Reliability of the Cerebral Performance Category to Classify Neurological Status Among Survivors of Ventricular Fibrillation Arrest: A Cohort Study. *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine*. 2011 June 15;19(1):38 [Epub ahead of print]

Gold LS, Stewart PS, Milliken K, Purdue M, Severson R, Seixas N, Blair A, Hartge P, Davis S, De Roos AJ. The Relationship Between Multiple Myeloma and Occupational Exposure to Six Chlorinated Solvents. *Occupational and Environmental Medicine*. 2011 June;68(6): 391-9.

Cara McDermott

Sullivan SD, Ramsey SD, Blough DK, **McDermott CL**, Clarke L, McCune JS. Health-care use and primary prophylaxis with colony-stimulating factors. *Value Health*. 2011 Mar-Apr;14(2):247-52.

McDermott CL, Blough DK, Fedorenko CR, Arora NK, Zeliadt SB, Fairweather ME, Oakley-Girvan I, Van Den Eeden SK, Ramsey SD. Complementary and alternative medicine use among newly diagnosed prostate cancer patients. *Support Care Cancer*. 2010 Dec 1. [Epub ahead of print]

Joshua Roth

Roth JA, Carlson JJ. The Prognostic Role of ERCC1 in Advanced Non-Small Cell Lung Cancer: A Systematic Review and Meta-Analysis. *Clinical Lung Cancer*. DOI: 10.1223/s12029-010-9242-0.

Roth JA, Carlson JJ. Cost-Effectiveness of Gemcitabine+Cisplatin vs. Gemcitabine Monotherapy in Advanced Biliary Tract Cancer. *Journal of Gastrointestinal Cancer*. DOI: 10.1007/s12029-010-9242-0.

Rahber Thariani

Thariani R, Wong W, Carlson J, Garrison Jr, L, Ramsey S, Deverka P, Esmail L, Rangarao S, Hoban C, Baker L, Veenstra D. Prioritization in Comparative Effectiveness Research: The CANCERGEN Experience in Cancer Genomics. *Medical Care (Forthcoming 2011)*

Jonathan Watanabe

Sand PK, Rovner ES, **Watanabe JH**, Oefelein MG. "Once-daily tiroprium chloride 60 mg extended release in subjects with overactive bladder syndrome who use multiple concomitant medications: Post hoc analysis of pooled data from two randomized, placebo-controlled trials." *Drugs Aging*. 2011 Feb 1;28(2):151-60.

Patel VD, **Watanabe JH**, Strauss JA, Dubey AT. "Work productivity loss in patients with dry eye disease: an online survey." *Curr Med Res Opin*. 2011 May;27(5):1041-8. Epub 2011 Mar 21.

Watanabe JH, Ney JP. "Meta-Analysis of Once-Daily Generic Anticholinergic Medication for Overactive Bladder" *Am J Pharm Benefits*. 2011;3(5):e85-e92.

Recent Graduates in the Workforce

Joseph Babigumira, PhD is an Assistant Professor, on the faculty of the Department of Global Health, in the School of Public Health at the University of Washington.

Catherine Corbell, PhD is working at the Allergan Campus, in Irvine, California. She is a Principal Research Associate in the Global Health Outcomes Strategy and Research Section.

William Wong, MS, is also working at Allergan as a Principal Research Associate, and also in the Global Health Outcomes Strategy and Research Section.

Justin Robertson, MS is completing his PhD in Economics.

PORPP Endowed Prize Recipient



The winning paper for the 2010 PORPP Endowed Prize was written by Preeti Bajaj. The title of her paper was: "A Risk-Benefit Framework for Factor V Leiden Testing to Improve Pregnancy Outcomes Among High-Risk Women".

The \$1,000 Prize is awarded to eligible candidates in the PhD or Master's program in PORPP, or related fields such as Public Health Genetics, Health Services, Economics or Global Health who are enrolled in a class taught by a PORPP faculty member. The paper must deal with an original health policy or health economic issue.



**2011 Western Pharmacoeconomics Planning Committee
University of Washington**

Faculty Sponsor: Lou Garrison, Committee Members: Rahber Thariani, Jonathan Watanabe, Vincent Lin, Rafael Alfonso, Ryan Hansen

The Western Pharmacoeconomics Conference was held on the University of Washington campus April 1st and 2nd. The conference hosted over 100 graduate students from programs in Universities from Texas to Montana and California to Canada. The various workshops were presented by faculty from University of Arizona, University of Utah and University of Texas as well as our own faculty. Poster and podium competitions were held and the winning poster was submitted by Derek Tang from the University of Arizona, and the winning podium presentation was given by Julia Slejko from the University of Colorado. Comments from participants and faculty were very positive.

Faculty -Recent Publications

David Blough

Williams EC, Bryson CL, Sun H, Chew RB, Chew LD, **Blough DK**, Au DH, Bradley KA. Association Between Alcohol Screening Results and Hospitalizations for Trauma in Veterans Affairs Outpatients. *Am J Drug Alcohol Abuse*. 2011 Jul 29. [Epub ahead of print]

Yeh RF, Pawlikowski MA, **Blough DK**, McDonald GB, O'Donnell PV, Rezvani A, Deeg HJ, McCune JS. Accurate Targeting of Daily Intravenous Busulfan with 8-Hour Blood Sampling in Hospitalized Adult Hematopoietic Cell Transplant Recipients. *Biol Blood Marrow Transplant*. 2011 Jul 4. [Epub ahead of print]

Sullivan SD, Ramsey SD, **Blough DK**, McDermott CL, Clarke L, McCune JS. Health Care Use and Primary Prophylaxis with Colony-Stimulating Factors. *Value Health*. 2011 Mar-Apr;14(2):247-52.

Zeliadt SB, Penson DR, Moinpour CM, **Blough DK**, Fedorenko CR, Hall IJ, Smith JL, Ekwueme DU, Thompson IM, Keane TE, Ramsey SD. Provider and Partner Interactions in the Treatment of Decision-Making Process for Newly Diagnosed Localized Prostate Cancer. *BJU Int*. 2011 Jan 18. doi: 10.1111/j.1464-410X.2010.09945.x.[Epub ahead of print]

Denise Boudreau

Boudreau DM, Yu O, Gray SL, Raebel MA, Johnson J, Larson EB. Concomitant use of Cholinesterase Inhibitors and Anticholinergics: Prevalence and Outcomes. In press at *J Am Geriatr Soc*.

Chubak J, **Boudreau DM**, Fishman PA, Elmore JG. Cost of breast-related care in the year following false positive screening mammograms. *Medical Care*. 2010 Aug 14. [Epub ahead of print].

Boudreau DM, Yu O, Johnson J. Statin Use and Cancer Risk: A Comprehensive Review. *Expert Opin Drug Saf*. 2010 Apr. 9. [Epub ahead of print].

Ogale SS, Lee TA, Au DH, **Boudreau DM**, Sullivan SD. Cardiovascular events associated with ipratropium bromide in COPD. *Chest* 2010; 137:13-19.

Brian Bresnahan

Garrison, LP, **Bresnahan, BW**, Higashi, MK, Hollingworth, W, Jarvik, JG. Innovation in Diagnostic Imaging Services: Assessing the Potential for Value-Based Reimbursement, *Acad Radiol*, 2011 Sep; 18(9): 1109-14..

Cocgun Y, **Bresnahan BW**, Ghate A, Gunn LM, A Markov decision process approach to multi-category patient scheduling in a diagnostic facility, *Artif Intell Med*, 2011 Jul2. [Epub ahead of print]

Josh Carlson

Roth JA, **Carlson JJ**. The Prognostic Role of ERCC1 in Advanced Non-Small Cell Lung Cancer: A Systematic Review & Meta-Analysis. *Clinical Lung Cancer*. 2011.

Roth JA, **Carlson JJ**. Cost-Effectiveness of Gemcitabine+Cisplatin vs. Gemcitabine Monotherapy in Advanced Biliary Tract Cancer. *Journal of Gastrointestinal Cancer*. 2011.

Carlson JJ, Wong WB, Reyes C, Veenstra DL. Budget Impact of Erlotinib for Maintenance Therapy in Advanced Non-Small Cell Lung Cancer. *Journal of Medical Economics* Vol. 14, No. 2, 2011, 159-16.

Carlson JJ, Sullivan SD, Garrison LP, Neumann PJ, Veenstra DL. Linking Payment and Health Outcomes: A Taxonomy and Examination of Performance-Based Reimbursement Schemes Between Healthcare Payers and Manufacturers. *Health Policy*, 2010.

Beth Devine

Devine EB, Patel R, Dixon D, Lawless NM, Wilson-Norton JL, Sullivan SD. Assessing physician and staff attitudes toward e-prescribing adoption in primary care: Use of a survey instrument. *Inform Prim Care* 2010; 18(3):177-87

Devine EB, Alfonso R, Sullivan DS. Comparative effectiveness of biologic therapies in rheumatoid arthritis: An indirect comparisons approach. *Pharmacotherapy* 2011;31:39-51.

Jansen JP, Fleurence R, **Devine EB**, Itzler R, Barrett A, Hawkins N, Lee K, Boersma C, Cappelleri JC. Interpreting indirect treatment comparisons and network meta-analysis for health care decision-making: Report of the ISPOR Task Force on Good Research Practices – Part 1 *Value in Health* 2011;14:417-28

Devine EB, Payne TH, Williams EC, Sittig DF, Tarczy-Hornoch P, Martin DP, Sullivan SD. Prescriber and staff perceptions of a computerized provider order entry system in primary care: A qualitative study. *BMC Medical Informatics and Decision Making* 2010, 10:72

Louis Garrison

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Shelly Gray

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Scott Ramsey

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Andy Stergachis

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Sean Sullivan

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David Veenstra

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Faculty Recent Grants

Denise Boudreau

Principal Investigator, **Commonly Used Medications and Breast Cancer Recurrence**, National Cancer Institute 9/1/2007-7/31/2012

Principal Investigator. **Use of APAP and Awareness around APAP Dose-Related Toxicity**. Johnson & Johnson. 2010-2011.

Co-Investigator, **Antidepressant Treatment and Risk of Obesity**, National Institute of Mental Health, 7/1/2009-6/30/2012

Co-investigator. **Cardiovascular Research Network Surveillance - ARRA**. National Heart, Lung, and Blood Institute, 2009-2012.

Co-investigator. **HMO Research Network Center for Education and Research on Therapeutics (CERT) III**. Agency for Healthcare Research and Quality. 2007-2011.

Co-Investigator. **Pharmacogenetics in Rural and Underserved Populations**. National Institute of General Medical Sciences. 2010-2015.

Co-investigator. **FDA Sentinel-Infrastructure**. Food and Drug Administration.

Consultant. **Statins and Lymphoma Malignancy Risk in a Large Multi-Site Population Based Cohort**. NCI. 2010-2014.

Brian Bresnahan

Co-Investigator, **Resource Over-Utilization Due to Serious Alcohol Related Injuries**, National Inst. of Health, 2010-2012.

Co-Investigator, **Back pain Outcomes using Longitudinal Data**, AHRQ CHOICE award, 2010 - 2013.

Beth Devine

Principal Investigator, **Evaluating e-prescribing in a Community-based, Integrated Health System**. AHRQ K-08, (2006-2011)

Co-Investigator, site research coordinator, (PI: Lambert), **Tools for Optimizing Prescribing: Development of a lab→medication based medication error report for hospitalized patients**. AHRQ CERT (2009-2011)

Co-Investigator (PI: Flum), **Surgical Care and Outcomes Assessment Program Comparative Effectiveness Research Network (SCOAP-CERTN)**. AHRQ R01 (2010-2013)

Co-Investigator, (PI: Gallagher), **Communication to Prevent and Respond to Medical Injuries: WA State Collaborative**. AHRQ R18 (2010-2013)

Co-Investigator, (PI: Disis), **UW Institute for Comparative Effectiveness Research Training**. NIH, CER Administrative Supplement to UW ITHS Grant (2011)

Co-Investigator (PI: Demiris), **Cost-effectiveness Analysis of a Problem Solving Intervention for Hospital Caregivers**. AHRQ R01 (2011-2015)

Louis Garrison

Principal Mentor, **UW-Pfizer Post-Doctoral Fellowship**, 2010-2011.

Principal Investigator, **Assessing the Benefit-Risk Balance of Exenatide Once Weekly: A Health Outcomes Modeling Approach**, 2010-1, Amylin Pharmaceuticals

Co-Investigator, **Strengthening Pharmaceutical Systems, Management Sciences for Health** (U.S. AID Contract; UW Subcontract) 7/1/2007-12/31/2012)

Co-Investigator, **Center for Genomics and Healthcare Equality**, National Human Genome Research Institute, 2010-2014.

Shelly Gray

Co-Investigator. **Alzheimer's Disease Patient Registry**, 2009-2013, NIA

Scott Ramsey

Principal Investigator, **A Study of Cancer Diagnosis as a Risk Factor for Personal Bankruptcy**, in response to NCI Challenge Grant RFA

Principal Investigator, **Center for Comparative Effectiveness Research in Cancer Genomics - CANCERGEN** NCI "GO" grant RFA

Co-Investigator, **ADVancing Innovative Comparative Effectiveness research-cancer diagnostics** ADVICE NCI "GO" grant RFA

Principal Investigator, **A Multi-State Study of Cancer Treatment and Outcomes Among American Indians**, NCI
Principal Investigator, **A Retrospective Evaluation of Patterns of Care for American Indian and Alaska Native Men with Elevated Prostate Specific Antigen**, subaward from University of Washington, CDC

Principal Investigator, **Luxembourg: Project Lung Cancer**, Piper and Flynn Foundations, Translational Genomics Research Institute

Andy Stergachis

Principal Investigator, **Assessment of the Safety of Antimalarial Drug Use During Early Pregnancy**. 2010-13. Malaria in Pregnancy Consortium via the Bill and Melinda Gates Foundation.

Principal Investigator, **Global Medicines Program**. 2010-13. Department of Global Health, UW.

Principal Investigator, **Supplement to Strengthening Pharmaceutical Systems (SPS) for Common Agenda Activities**. 2011. Management Sciences for Health via Cooperative Agreement Award from USAID.

Sean Sullivan

Principal Investigator, **CHASE K12 Training**, 2010-2013, AHRQ

Co-Investigator, **BOLD CHOICE** 2010-2013, AHRQ

Principal Investigator, **Evaluation of the Asthma Insight in America Survey**, 2011-2012

Co-Principal Investigator, **Advancing Innovative Comparative Effectiveness Research-Cancer Diagnostics**, NCI "GO" Grant RFA

Co-Investigator, **CER Administrative Supplement-Workforce Development**, 2009-2011, NIH

David Veenstra

Principal Investigator, **Risk-Benefit Framework for Genetic Tests**, 2009-2012, CDC

Principal Investigator, **Center for Cancer Genomic Evaluations of Comparative Effectiveness (CANCERGEN)**, 2009-2012, NCI

Co-Investigator, **Center for Genomics and Health care Equality, 2010-2015**, NIH/NGRI

Co-Investigator, **Pharmacogenetics in Rural and Underserved Populations**, 2010-2015, NIGMS

Gifts

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- David Blough, PhD**, Research Associate Professor
- Denise Boudreau, PhD**, Affiliate Associate Professor
- Brian Bresnahan, PhD**, Adjunct Research Assistant Professor
- Josh Carlson, MPH, PhD**, Research Assistant Professor
- Emily Beth Devine, PharmD, MBA, PhD**, Associate Professor, Adjunct Appointment in the Dept. of Biomedical and Health Informatics
- Penny L. Evans**, Program Operations Specialist, Graduate Program Advisor
- David Flum, MD, MPH**, Adjunct Professor
- Jacqueline Gardner, PhD**, Professor Emeritus
- Lou Garrison, Jr., PhD**, Professor, Associate Director
- Shelly Gray, PharmD**, Professor
- Thomas Hazlet, PharmD, DrPH**, Associate Professor
- Jerry Jarvik, MD, MPH**, Adjunct Professor
- Larry Kessler, ScD**, Adjunct Professor
- Donald Patrick, PhD**, Adjunct Professor
- Scott Ramsey, MD, PhD**, Adjunct Professor, Director, Cancer Outcomes Research Program, Fred Hutchinson Cancer Research Center
- Andy Stergachis, PhD**, Adjunct Professor
- Sean Sullivan, PhD**, Professor of Pharmacy, Medicine, and Public Health; Director, PORPP
- David Veenstra, PharmD, PhD**, Professor, Director, Graduate Programs

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