



Pharmaceutical Outcomes Research & Policy Program

Fall 2008



2008 Graduates and Faculty

1st Row, Graduates: Jonathan Campbell & Emily Beth Devine; Professor Jacqueline Gardner

2nd Row, Faculty: Srikanth Kadiyala, Sean Sullivan, Thomas Hazlet

3rd Row, Faculty: Louis Garrison, David Veenstra

Congratulations to Recent Graduates

Jonathan Campbell, MS, PhD

Dissertation Title: *Health Economics Research in Asthma: The Assessment of Asthma Control and the Development of a Contemporary Asthma Policy Model*

Dissertation Advisor: Sean Sullivan

Current Position: Eli Lilly Post-Doctoral Fellow, University of Washington

Emily Beth Devine, PharmD, MBA, PhD

Dissertation Title: *Evaluating the Impact of an Ambulatory Electronic Prescribing System in a Community-based Integrated Health System*

Dissertation Advisor: Sean Sullivan

Current Position: Research Associate Professor, University of Washington

Welcome to New Students & Fellows



Katie Gries, BS, University of Washington; PharmD, 2008 University of Southern California

Allergan/UW Post-Doctoral Fellow

Katie will be pursuing a master's degree and will be engaged in joint Allergan/UW research projects during her two year fellowship. She is the second Allergan Fellow to participate in this program.

Bernardo Goulart, MD, 1997, Universidade Federal do Rio de Janeiro

Bernardo is currently completing a 4 year fellowship in medical oncology at the Fred Hutchinson Cancer Research Center. He intends to become an outcomes researcher, in order to perform clinical and cost-effectiveness outcomes research in head and neck and lung cancer. He is pursuing a master's degree in PORPP to facilitate these goals.

Welcome to New Students, continued

Norio Kasahara, BS Pharmacy, Tokyo University of Pharmacy and Life Sciences; MPH, 2000 Johns Hopkins University

Norio has been working with the Japanese Ministry of Health and the Ministry of Public Health in Afganistan to train and supervise pharmacy staff in Afganistan in the use of drugs for tuberculosis. He has been in Kabul, Afghanistan for the past 3 years. He will be pursuing his PhD degree and one of his goals will be to assist emerging countries in developing health policy.

Joshua Roth, BS, Union College, New York; MHA, 2008 University of Washington

Joshua's career goal is to attain a professorship role at a major university, where he can engage in collaborative research efforts, facilitate the education of students and apply research and theory in the health services industry. By obtaining his PhD in the PORP Program, he will enhance his knowledge in statistics, economics and epidemiologic theory. This, in conjunction with his knowledge in health care policy and social psychology, will give him the necessary interdisciplinary skills needed to reach his goals.

Heidi Wirtz, BS, MS University of Iowa; PharmD, 2000 Creighton University

Heidi comes to us from a PharmD and industry background. She has worked for a pharmaceutical company as a professional scientific education manager for the past two years, and prior to that as a senior medical and research liaison. She will be pursuing a PhD degree, and her career objectives include working in a consultancy capacity for evidence-based assessment of health care interventions, developing disease management guidelines, and conducting appropriateness research for determining optimal patient care.

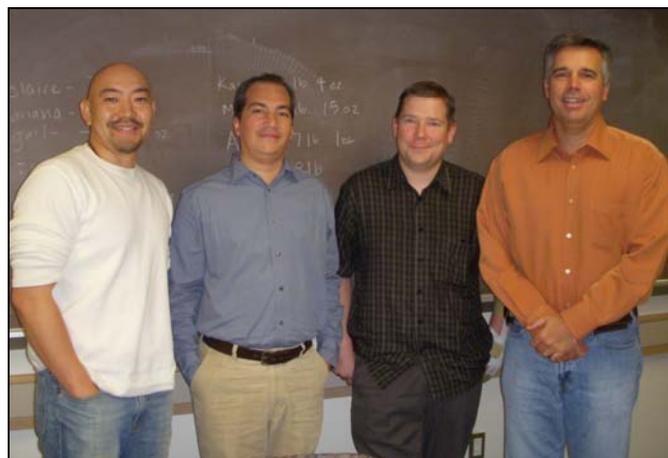
Projects, Honors and Awards - Current Students

Rafael Alfonso, MD, MSc

Rafael is completing studies on the burden of intestinal bowel disease, the cost-effectiveness of GLP-1 inhibitors in diabetes in the US and a trial-based cost-effectiveness study of treatments for hypernatremia conditions in inpatient settings. He will be presenting a review of Cost-Effectiveness of Cardiovascular Prevention in Developing Countries in Colombia in mid-September, 2008.

Joseph Babigumira, MD, MS

Joseph presented four poster and podium presentations this past year. They include the following: *"The Cost-Effectiveness of a Pharmacy-Only Refill Program in a Large Urban HIV/AIDS Clinic in Kampala, Uganda"* was presented as a poster at the 12th International Workshop on HIV Observational Databases, in Malaga, Spain, March 27-30, 2008, *"The Workforce and Cost Implications of Substituting Nurses and Pharmacists for Doctors in the Follow-up of Patients with AIDS on Antiretroviral Therapy"*



Incoming Class of 2007

Jonathan Watanabe, Rafael Alfonso, Ryan Hansen and Director Sean Sullivan.

al Therapy in Uganda" was presented on the podium at the 2008 Berkeley Conference on the Global Health Workforce, Berkley, CA, April 4-5, 2008, *"An Economic Analysis of Task Shifting in Uganda"* was presented as a poster at the International Society of Pharmaceutical and Outcomes Research (ISPOR) 13th Annual International Meeting in Toronto, Ontario, Canada, May 3-7, 2008, and *"Cost-effectiveness of Programmatic Models to Provide Antiretroviral Therapy in Resource Limited Settings"* was presented on the podium in a late breaker session at the XVII International AIDS Conference, August 3-8, 2008, Mexico City.

Mindy Cheng, MS

Mindy presented a poster at the ISPOR 13th Annual International Meeting in Toronto titled: *"Optimization of Diagnosis and Treatment of Coronary Artery Disease in China With Use of Coronary CT Angiography."* This research is described in a manuscript that was submitted to Journal of Cardiovascular Computed Tomography and is currently under review. Her current focus is on economic and health outcome evaluations of orphan drugs and the impact of the Orphan Drug Act (1983).

Jamie Cross, MS

Jamie's dissertation research proposes to accomplish two things: 1) To quantify the risk-benefit profile of a type 2 diabetes drug product, using a QALY-based health outcomes modeling approach, at the time of regulatory approval and the time of subsequent FDA advisory committee meetings, and 2) to evaluate policy alternatives for current methods of regulatory risk-benefit assessment using qualitative data from key opinion leaders.

He presented a poster at the ISPOR meeting in Toronto in May, titled; *"Improving health technology appraisal and decision-making: What has the British Parliament's inquiry*

of NICE taught us?” and at the American Society for Clinical Pharmacology and Therapeutics where he was Session Chair, titled: “*Improving our approach to drug risk-benefit assessment: Looking beyond P-values*”. He was also asked to make a presentation to the Food and Drug Administration last November titled “*Overview of potential tools for regulatory risk-benefit analysis*”.

Ryan Hansen, PharmD

Ryan recently completed a study on the risk of epilepsy-related events associated with switching FDA-rated anti-epilepsy products. The research was accepted for presentation at the American Epilepsy Society meeting in December. In addition, he is working with Sean Sullivan and Jon Campbell on early-stage disease modeling in asthma.

Elizabeth James, PharmD

Elizabeth was the recipient of the American Foundation for Pharmaceutical Education Fellowship for 2007-2008. She is currently progressing with her dissertation research on “*Evaluation of a Prescription Drug Pay-For-Performance Program: Impact on Prescribing Trends, Budget & Patient Outcomes*”.

D. Eldon Spackman, MA

Eldon is the current recipient of the UW Warren G. Magnuson Scholar Award 2007-2009. This year his research has focused on the cost-effectiveness of treatments in Hepatitis B. This work has been published in *Alimentary Pharmacology & Therapeutics* and accepted in *Pharmacoeconomics*. Eldon has also been working with Tufts University to develop a simulation model to determine the cost-effectiveness of screening for Alzheimer’s disease. He presented two posters at this year’s ISPOR in Toronto Canada, the manuscript for one, a review of asthma health economics, has been recently accepted for publication in *Allergy*. Eldon’s planned dissertation work is to develop the concept of dependence as an outcome measure for Alzheimer’s disease.

Catherine Waweru, MSc

Catherine has spent this summer in Philadelphia at the Glaxo-Smith-Kline campus as an intern in the Department of Global Health Outcomes. She has been working on a project titled: Analysis of the clinical and economic burden of influenza in the United States by age and seasonality.

She presented a poster titled “*Assessment of factors influencing cost, availability and distribution of anti-herpes treatment in sub-Saharan Africa*” at the ISPOR conference, in Toronto, Canada in May. In April she gave a podium presentation, titled: “*Assessment of factors affecting availability and accessibility of acyclovir in 8 sub-Saharan African Countries*” at the WHO meeting in Montreaux, Switzerland.

Jelena Zurovac, BA

Jelena is pursuing her PhD in Economics, and a Master’s degree in PORPP. Her interests and research have been in the area of global health and health economics. She is currently working as part of the research team on the Bill and

Melinda Gates Foundation Grant on the cost-effectiveness of measles vaccination innovations. Jelena is from Bosnia, and has worked with women’s shelters and with the Norwegian People’s Aid Oslo.

Post-Doctoral Fellows

Jonathan Campbell, PhD

Eli Lilly/UW Post-Doctoral Fellow

Jonathan graduated with his PhD from PORPP in December 2007 and defended his dissertation research titled, “*Health Economics Research in Asthma: The Assessment of Asthma Control and the Development of a Contemporary Asthma Policy Model*.” Starting in January of 2008, he began an Eli Lilly post-doctoral fellowship working under Drs. Sullivan, Garrison and Ramsey. During his fellowship, he has presented components of his dissertation research at the International Society for Pharmacoeconomics and Outcomes Research Toronto (May 2008) and Seoul (September 2008) meetings. He has published three peer-reviewed manuscripts in asthma clinical journals including *Allergy*, *European Respiratory Journal*, and *Annals of Allergy, Asthma and Immunology*. In addition to his ongoing asthma research, Drs. Campbell and Ramsey carried out a Lilly-funded systematic review of breast cancer treatment costs. Other research endeavors include leading or participating in epidemiology and health economics projects in the overactive bladder, epilepsy, rheumatoid arthritis, and dry eye disease areas. Jonathan wishes to thank Novartis Pharma and Genentech Inc for their pre-doctoral support and Eli Lilly for their funding of his post-doctoral fellowship. He views his current position as one that will position himself well for a fruitful career as a scientist in the health economics and outcomes research field.

Josh Carlson, PhD

Pfizer/UW Post-Doctoral Fellow

Josh Carlson graduated with his PhD from the Institute for Public Health Genetics in December 2007 and defended his dissertation research titled, “*Pharmacogenomic drug targeting in non-small cell lung cancer: Evaluating the evidence, cost-effectiveness, and policy options*.” Starting in January of 2008, he began a Pfizer post-doctoral fellowship working under Drs. Sullivan, Garrison and Veenstra. During his fellowship, he presented components of his dissertation research at the International Society for Pharmacoeconomics and Outcomes Research Toronto (May 2008) and received the award for “best new investigator podium presentation”. He has published four peer-reviewed manuscripts on lung cancer and pharmacogenomics in the following journals: *Lung Cancer*, *Value in Health*, *Drugs*, and *Drug Metabolism Reviews*. In addition to his ongoing cancer research, Josh has been the project manager for a PORPP program exploring performance-based reimbursement for medical products. Josh would like to thank Pfizer for their funding of his post-doctoral fellowship.

Jonathan Watanabe, PharmD
Allergan/UW Post-Doctoral Fellow

Jonathan is conducting the second year of his Allergan Fellowship on the Allergan campus in Irvine, California. He is working in the Global Health Outcomes Strategy and Research (GHOSR) section, and is precepted by Dr. Jonathan Kowalski. He is currently involved in his thesis work on surgical intervention cost analyses. His other second year projects include: Global Value Dossier, Patient Reported Outcomes Dossiers, and Health Outcomes Report; Outcomes analysis following CYP450 related drug-drug interactions and cost analysis of various other surgical interventions.

He presented a podium session at the American Urological Association National Convention in Orlando, FL May 2008 and a poster session at 3rd Annual University of Washington Post-Doc Symposium. The presentation was titled: "*Cost Analysis of Treatments for Antimuscarinic Refractory Patients with overactive bladder*".

Joseph Babigumira Receives Fellowship to Target Uganda's Health



PORPP PhD student, Joseph Babigumira recently got a boost in his effort to improve the reproductive health of women and girls in his native country of Uganda.

The William and Flora Hewlett Foundation and the Institute of International Education (IIE) granted him a \$40,000 dissertation fellowship.

Babigumira's dissertation will look at the economic impact of unsafe, induced abortion in Uganda. Terminating a pregnancy is illegal in the East African country. This means, according to Babigumira, "a lot of young girls there are dying trying to get them."

He knows it's a controversial topic, especially in a country where approximately 70 percent of the population is Catholic or Anglican, according to a 2002 study of the Uganda Bureau of Statistics. As such, Babigumira intends to approach his research carefully -- focusing on measuring the cost of these unsafe procedures on the health care system.

"There's a lot of lost life, lost productivity and suffering because of these procedures," he said. If he can quantify the cost of this social problem, he added, it could make policy-makers in Uganda and perhaps in other African countries in similar situations start prioritizing the need to find solutions. One solution he intends to highlight is how to better implement programs that encourage the use of contraceptives. He hopes that in the long term his research can play a role in helping to prevent unintended pregnancies from happening in the first place.

Because people who have unplanned pregnancies may also be more likely to contract HIV, Babigumira will also assess

that connection and its implications in his research.

The two-year fellowship he received from the Hewlett Foundation and IIE is awarded to Ph.D. candidates studying population, reproductive health and economic development. Only a handful of students across the country received these awards.

A student in the School of Pharmacy's Pharmaceutical Outcomes Research and Policy Program, Babigumira has a bachelor's degree in medicine and surgery from Mbarara University in Uganda and a master's degree in health services research from Case Western Reserve University.

Master's Program in Biomedical Regulatory Affairs

The University of Washington's new Professional Master of Science in Biomedical Regulatory Affairs, offered by the UW School of Pharmacy in partnership with UW Educational Outreach, addresses a growing need for well-trained professionals in the regulatory field. The degree will serve those who wish to advance their careers in the medical products industry or those entering the field from related areas. The program has accepted 20 students for the Autumn 2008 term.

The program comprises a series of courses that will be offered in evening hours and on weekends on the University of Washington campus in Seattle, at the UW Educational Outreach facility in Bellevue and in other locations accessible to working adults. These classroom-based courses will be augmented with a practicum that provides focused, in-depth learning opportunities and the on-the-job experience that is especially important for those entering the field.

The curriculum bridges theory with practice, drawing on the expertise of faculty and resources from the UW as well as professionals from the medical products industry in the Northwest. The program's schedule allows students to earn a master's degree within two years.

PORPP Endowed Prize Recipients

Joseph Babigumira and Creighton Don were the first recipients of the PORPP Endowed Prize. The 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.

The title of Joseph's paper was: "*The Cost-Effectiveness of a Pharmacy-only Refill Program in a Large Urban HIV/AIDS Clinic in Kampala, Uganda*".

Creighton's paper was titled: "*Clopidogrel pre-loading Compared to As-Needed Loading in Patients with Acute Coronary Syndromes (ACS) Undergoing an Invasive Strategy is Cost-Effective as Long as Rates of Coronary Artery By-pass Surgery are Low*".

The \$1000 prize was shared by the two recipients.



Katie Gries, presenting her poster at the 2008 Corporate Advisory Board Meeting, held at The Edgewater Hotel, September 17, 2008.

Faculty Notes

Lou Garrison, Professor of Pharmacy, was featured in an article about health-technology assessment in Brazil's economic journal *Gazeta Mercantil*.

Lou Garrison, Professor of Pharmacy, **David Veenstra**, Associate Professor of Pharmacy, **Beth Devine**, Research Associate Professor of Pharmacy, and **Scott Ramsey**, Adjunct Associate Professor of Pharmacy, have each authored articles in the top 100 most-downloaded from the journal *Value in Health* since 1998.

Incoming and Outgoing Deans



Incoming Dean, Tom Baillie (L), with outgoing Dean, Sid Nelson (R) at the 2008 Corporate Advisory Board Meeting.

Affiliate Institutions

The Department of Pharmacy has built strong ties with numerous health care provider, industry, and government organizations. Through these ties, students find numerous research opportunities. A partial listing of affiliations includes:

- University of Washington Academic Medical Center and its affiliated teaching institutions
- Group Health Cooperative of Puget Sound
- Regence BlueShield and The Regence Group
- Premera Blue Cross
- Program for the Appropriate Use of Technology in Health (PATH)
- The Washington State Pharmacists Association
- Washington Dental Services
- United HealthCare Corporation
- Kaiser Permanente, Northwest Region
- State of Washington Department of Social and Health Services, Medicaid and Basic Health Plan
- Veterans Affairs Puget Sound Health Care System
- University of York, United Kingdom
- University of British Columbia

Pharmaceutical Outcomes Research and Policy Program and the Fred Hutchinson Cancer Research Center

The Department's Pharmaceutical Outcomes Research and Policy Program (PORPP) has helped the University of Washington to become a nationally recognized center for pharmacoepidemiology, pharmacoconomics, and pharmaceutical outcomes research.

PORPP faculty and staff are affiliated with the FHCRC Translational and Outcomes Group. The TOR group spans the process of discovery, development, and evaluation of targets and interventions to improve outcomes for individuals at risk for cancer.

Gifts

PORPP would like to acknowledge our many supporters of this past year. Our accomplishments would not have been possible without these generous educational grants and gifts. We express our sincere gratitude to:

- Abbott Laboratories
- Academy of Managed Care Pharmacy
- Allergan
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- Beth Devine, PharmD, MBA
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- Foundation for Managed Care Pharmacy
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- GE Foundation
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- Sean Sullivan, PhD
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PORPP Faculty

David Au, MD, MPH, Affiliate Assistant Professor

David Blough, PhD, Research Associate Professor

Denise Boudreau, PhD, Affiliate Associate Professor

Brian Bresnahan, PhD, Adjunct Research Assistant Professor

Brian Custer, PhD, Affiliate Assistant Professor

Emily Beth Devine, PharmD, MBA Research Associate Professor

D.S. (Pete) Fullerton, PhD, Affiliate Professor

Jacqueline Gardner, PhD, Professor

Lou Garrison, PhD, Professor, Associate Director, Pharmaceutical Outcomes Research & Policy Program

Thomas Hazlet, PharmD, DrPH, Associate Professor

Will Hollingworth, PhD, Affiliate Assistant Professor

Eric Johnson, MPH, PhD, Affiliate Assistant Professor

Srikanth Kadiyala, MA, PhD, Assistant Professor

Todd Lee, PharmD, PhD, Affiliate Assistant Professor

Donald Patrick, PhD, MSPH, Adjunct Professor

Scott Ramsey, MD, PhD, Adjunct Professor, Director, Cancer Outcomes Research Program, Fred Hutchinson Cancer Research Center

David Smith, RPh, MHA, PhD, Affiliate Assistant Professor

Andy Stergachis, PhD, Adjunct Professor

Sean Sullivan, PhD, Professor of Pharmacy, Medicine, and Public Health and Community Medicine; Director, Pharmaceutical Outcomes Research & Policy Program

David Veenstra, PharmD, PhD, Associate Professor

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