

Kai Yeung

PharmD, PhD

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Seattle, WA 98101

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CURRENT ACADEMIC POSITION

Assistant Scientific Investigator
Group Health Research Institute

Sept 2016- Present
Seattle, WA

EDUCATION & LICENSURE

Doctor of Philosophy in Pharmaceutical Outcomes Research & Policy
University Washington

Dec 2015
Seattle, WA

Dissertation title: Does Cost-Effectiveness Analysis Have a Role in US Managed Care Drug Formularies?
Empirical Study of Utilization, Costs, Outcomes and Elasticity in a Value-Based Formulary
Dissertation Committee: Sean Sullivan (chair), Anirban Basu, Ryan Hansen and John Watkins

Doctor of Pharmacy
University of Southern California

May 2011
Los Angeles, CA

Masters of Science in Biology
University of California, San Diego

Feb 2005
La Jolla, CA

Bachelors of Science in Biology
University of California, San Diego

Jun 2003
La Jolla, CA

Pharmacist License

California | Lic.#: RPH 66494
Washington | Lic.#: PH 60231957

PUBLICATIONS

1. **Yeung K**, Basu A, Marcum Z, Watkins JB, Sullivan SD. Impact of a Value-Based Formulary in Three Chronic Disease Cohorts. Am J Manag Care. Accepted.
(**PAN Challenge Prize Winner**)
2. Jelačić S, Craddick K, **Yeung K**, Bounthavong M, Nair B, Kusolos D, Bowdle A. Relative Costs of Anesthesiologist Prepared, Hospital Pharmacy Prepared and Outsourced Anesthesia Drugs. J Clin Anesth. In press.
3. **Yeung K**, Basu A, Hansen RN, Watkins JB, Sullivan SD. Impact of a value-based formulary on medication utilization, health services utilization, and expenditures. Med Care, 2016 Aug 30. [Epub ahead of print]
4. **Yeung K**, Basu A, Hansen RN, Sullivan SD. Price elasticities of pharmaceuticals in a value-based-formulary setting. National Bureau of Economic Research Working Paper #22308, June 2016.
(**Best Student Paper-Vancouver Health Economics Methodology Annual Meeting**)

5. Sullivan SD, **Yeung K**, Vogeler C, Ramsey SD, Wong E, Murphy CO, Danielson D, Veenstra DL, Garrison LP, Burke W, Watkins JB. Design, implementation, and first-year outcomes of a value-based drug formulary. *JMCP*. 2015 Apr;21(4):269-75.
(Honorable Mention Best Paper of the Year)
6. Carlson JJ, Gries KS, **Yeung K**, Sullivan SD, Garrison LP Jr. Current status and trends in performance-based risk-sharing arrangements between healthcare payers and medical product manufacturers. *Appl Health Econ Health Policy*. 2014 Jun;12(3):231-8.
7. Gold LS, **Yeung K**, Smith N, Allen-Ramey FC, Nathan RA, Sullivan SD. Asthma control, cost and race: results from a national survey. *J Asthma*. 2013 Sep;50(7):783-90.
8. Vo AA, Petrozzino J, **Yeung K**, Sinha A, Kahwaji J, Peng A, Villicana R, Mackowiak J, Jordan SC. Efficacy, outcomes, and cost-effectiveness of desensitization using IVIG and rituximab. *Transplantation*. 2013 Mar 27;95(6):852-8.
9. Littlejohns P, **Yeung K**, Clark S, Weale A. A proposal for a new social values research program and policy network. *J Health Organ Manag*. 2012;26(3):407-21.
10. **Yeung K**, Carlson JJ. Clinical and economic review of erlotinib in non-small-cell lung cancer. *Expert Rev Pharmacoecon Outcomes Res*. 2012 Aug;12(4):411-23.
11. **Yeung K**. Using AHRQ's evidence-based reports to improve managed care pharmacy practice: oral antidiabetic agents. *J Manag Care Pharm*. 2011 Oct;17(8):641-9.
12. **Yeung K**, Miller JS, Savage AE, Husband BC, Igic B, Kohn JR. Association of Ploidy and Sexual System in *Lycium californicum*. *Evolution*. 2005; 59(9):2048-2055.

MANUSCRIPTS UNDER REVIEW

Yeung K, Basu A, Hansen RN, Sullivan SD. Price elasticities of pharmaceuticals in a value-based-formulary setting

PODIUM PRESENTATIONS

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| Yeung K . Implications of a Value-Based-Formulary for Healthcare Policy Makers
Washington State Prescription Drug Price and Purchasing Summit | June 2016 |
| Yeung K , Basu A, Hansen RN, Sullivan SD. Price Elasticities of Pharmaceuticals
in a Value-Based-Formulary Setting
Vancouver Health Economics Methodology (VanHEM) Annual Meeting
(Best student paper award) | June 2016 |
| Yeung K , McElwee N, Watkins J, Drummond M. Paying for Cures—How We Can Afford It?
Academy of Managed Care Pharmacy Annual Meeting | April 2016 |
| Yeung K , Basu A, Hansen RN, Watkins J, Sullivan SD. Application of Cost-Effectiveness Logic
to US Managed Care Drug Formularies: Long Term Outcomes of a Value-Based Formulary.
International Society for Pharmacoeconomics and Outcomes Research Annual Meeting
(Best student podium presentation award) | May 2015 |
| Yeung K . Pharmacoeconomic Modeling: Applying Value to Formulary Management.
Academy of Managed Care Pharmacy Annual Meeting | April 2015 |
| Yeung K , Sullivan SD, Vogeler C, Ramsey SD, Wong E, Murphy CO, Danielson D,
Veenstra DL, Garrison LP, Burke W, Watkins JB. Incentivizing value in managed care
drug formularies: design, implementation, and first-year outcomes of a value-based formulary.
International Society for Pharmacoeconomics and Outcomes Research Annual Meeting | June 2014 |

(Best student podium presentation award)**POSTERS**

- Yeung K**, Kho T, Watkins JB. April 2016
Systematic review of economic evidence grading systems: a payers' perspective.
Academy of Managed Care Pharmacy 28th Annual Meeting
- Pistorosi RH, **Yeung K**, Danielson D, Watkins JB, Sullivan SD. April 2015
An Analysis of the Decisions for a Value-based Formulary against its ICER Threshold Guidelines
Academy of Managed Care Pharmacy 27th Annual Meeting
- Yeung K**, Sullivan SD, Vogeler C, Ramsey SD, Wong E, Murphy CO, Danielson D. April 2014
Veenstra DL, Garrison LP, Burke W, Watkins JB. Improving the Value of Prescription
Drug Insurance.
Translational Science 2014 Annual Meeting
- Yeung K**, Gong C. Cost-utility analysis of enzalutamide vs. abiraterone for May 2013
the treatment of docetaxel refractory metastatic castrate resistant prostate cancer.
International Society for Pharmacoeconomics and Outcomes Research Annual Meeting
- Yeung K**, Hay J. Cost-utility analysis of romiplostim versus splenectomy in the treatment April 2011
of chronic refractory immune thrombocytopenic purpura. **(Best student poster award)**
Academy of Managed Care Pharmacy 23rd Annual Meeting
- Yeung K**, Robinson M, Kowalski J. The Impact of Geographic Atrophy on April 2009
Managed Care Organizations.
Academy of Managed Care Pharmacy Educational Conference
- Yeung K**. NP/PA Clinics: Opportunity or Obstacle to the Future of Pharmacy? May 2008
California Society of Health System Pharmacy Annual Conference

GRANTS

- Funder: Group Health Research Institute Development Fund
PI: Kai Yeung, PharmD, PhD
Role: Principal Investigator
Dates: 01/1/17-12/31/17
Title: Building a Cost Effectiveness Analysis and Modelling Resource for Group Health Research Institute
Goal: Develop a Group Health biostatistician in cost-effectiveness and modelling methods to increase capacity for health economic research
Funding: \$50,000
- Funder: Group Health Research Institute Development Fund
PI: Beverly Green, MD, MPH
Role: Co-investigator
Dates: 04/1/17-12/31/17
Title: BP-CHECK Automated Office BP Measurements 2017 Development Fund Proposal
Goal: To compare the cost- effectiveness of usual clinic BP, home BP, kiosk BP, automated office BPs, and 24 hour automated BP for diagnosis of hypertension
Funding: \$30,000
- Funder: University of Washington, Program in Policy Research for Health Technologies
PI: Louis Garrison, PhD
Role: Post-doctoral Fellow
Dates: 07/1/15-8/30/16

Title: Paying for Cures and Other High---Cost, Breakthrough Treatments: Value, Affordability, Financing, and Policy Challenges
 Goal: To evaluate policy options to address the challenges of financing high cost, breakthrough interventions within health systems oriented to paying for chronic and low cost acute treatments
 Funding: \$450,000

Funder: Agency for Healthcare Research and Quality
 PI: Kai Yeung, PharmD, PhD
 Role: Principal Investigator
 Dates: 07/1/14-6/30/15
 Title: R36 HS23346-01A1: Incentivizing Value in Managed Care Plans: Impact of a Value-Based Formulary
 Goal: To evaluate the impact of a Value-Based Formulary on medication utilization, health services utilization, and expenditures.
 Funding: \$40,000

Funder: NIH, National Center for Advancing Translational Sciences
 PI: Mary L. (Nora) Disis, MD
 Role: Trainee
 Dates: 07/1/13-6/30/14
 Title: TL1TR000422: Institute of Translational Sciences Pre-doctoral Training Program
 Goal: Intensive didactic coursework and mentored training in health economic methods.
 Role: Trainee
 Funding: \$69,000

Funder: The Merck Foundation
 PI: Sean Sullivan, PhD
 Role: Trainee
 Dates: 06/12/12-6/21/13
 Title: Association of asthma control, cost and race
 Goal: To investigate whether partly and uncontrolled asthmas are associated with increased costs for asthma-related healthcare utilization compared to well-controlled asthma and to determine whether these associations differed across racial groups.
 Funding: \$200,000

Funder: University of Washington
 PI: Sean Sullivan, PhD
 Role: Trainee
 Dates: 09/12/11-6/21/12
 Title: Performance-Based Risk-Sharing Arrangements between Healthcare Payers and Medical Product Manufacturers
 Goal: To identify and characterize publicly available cases and related trends for performance-based arrangements.
 Funding: \$72,000

Funder: University of California Graduate Student Research Grant
 PI: Kai Yeung, PharmD, PhD
 Role: Principal Investigator
 Dates: 01/01/2004-12/31/2004
 Title: Gender and Ploidy in Lycium
 Goal: To evaluate the association of chromosome number on self-incompatibility mechanisms in Lycium californicum
 Funding: \$1,500

Funder: National Science Foundation Undergraduate Research Grant
 PI: Joshua Kohn, PhD
 Role: Trainee
 Dates: 05/15/2002-9/15/2002
 Title: Evolution of self-incompatibility in Solanaceae
 Goal: To assess the evolutionary diversity of the self-incompatibility gene in the Solanaceae family
 Funding: \$6,500

Past Professional Positions

Post-doctoral Research Fellow Pharmaceutical Outcomes Research & Policy, University Washington	Sept 2015- Sept 2016 Seattle, WA
Predoctoral Research Associate Pharmaceutical Outcomes Research & Policy, University Washington	Sept 2011- Aug 2015 Seattle, WA
Cost-Effectiveness Registry Reader Tufts Medical Center Institute for Clinical Research and Health Policy Studies	Mar 2010- June 2013 Boston, MA
Visiting Researcher National Institute for Health and Clinical Excellence	May 2011- Aug 2011 London, UK
Research Intern The Food and Drug Administration	Mar 2011 - May 2011 Silver Spring, MD
Program Analyst Agency for Healthcare Research and Quality	June 2010- Aug 2010 Rockville, MD
AMCP/FMCP/Allergan Specialized Health Outcomes Summer Intern Allergan Global Health Outcomes Strategy and Research Wellpoint Clinical Analytic Strategies	June 2009- Aug 2009 Irvine, CA West Hills, CA
Marketing Research Consultant OrthoAlign Inc.	Oct 2009- July 2010 Aliso Viejo, CA
Drug Information/Pharmacy Outcomes Research Intern Kaiser Permanente	Jan 2008- July 2010 Downey, CA
Volunteer Consultation Pharmacy Intern Weingart Medical Clinic/ LA County Hospital Liver Clinic	Dec 2008- May 2008 Los Angeles, CA
Research Assistant Broad Center for Regenerative Medicine	May 2008- Aug 2008 Los Angeles, CA
Research Associate University of California San Diego	Jul 2003- Feb 2005 La Jolla, CA

TEACHING EXPERIENCES

Guest Lecturer for Clinical and Economic Evaluation in Managed Care Pharmacy University of Washington, Seattle	Jan 2015
Guest Lecturer for Special Studies in Managed Care Pharmacy University of Washington, Seattle	Oct 2014
Teaching Assistant for Health Economics & Outcomes Research Program University of Washington, Seattle	Jan 2013-June 2013

Teaching Assistant for Upper Division Biology
University of California, San Diego

Yeung, K
Feb 2004- Jun 2004
La Jolla, CA

Mentor
University of Washington
- Ryan Pistorisi (PharmD/MS student)
- Tania Kho (PharmD student)

Sept 2013- Present
Seattle, WA

ACADEMIC SERVICES

Editorial advisory board member- Journal of Managed Care & Specialty Pharmacy 2015– Present

President- ISPOR Student Chapter 2014– 2015
University of Washington

Peer reviewer- Journal of Managed Care Pharmacy 2011– Present

Admissions committee- Pharmaceutical Outcomes Research and Policy Program 2012– 2013
University of Washington

PROFESSIONAL MEMBERSHIPS

AcademyHealth
Academy of Managed Care Pharmacy
American Association of Colleges of Pharmacy
American Society of Health Economists
International Society for Pharmacoeconomics and Outcomes Research
Society for Medical Decision Making

HONORS & AWARDS

Best Paper Challenge Prize: First Place Jan 2017
American Journal of Managed Care and Patient Access Network Challenge

Best Student Paper of the Year June 2016
Vancouver Health Economics Methodology (VanHEM) Annual Meeting

Honorable Mention Best Paper of the Year April 2016
Journal of Managed Care & Specialty Pharmacy

Best Student Podium Presentation May 2015
International Society for Pharmacoeconomics and Outcomes Research

Best Student Podium Presentation June 2014
International Society for Pharmacoeconomics and Outcomes Research

Bayer Endowed Academic Scholarship Sept 2011-June 2013
University of Washington

Best Student Poster Presentation Apr 2011

Academy of Managed Care Pharmacists National Conference

Jack Logan Converse Pharmacy Scholarship
University of California School of Pharmacy

Oct 2010

Best Pharmaceutical Industry Marketing & Development Plan
University of California School of Pharmacy

May 2010

University of Southern California Scholar
University of California School of Pharmacy

Sept 2008- May 2010

USA Funds Access to Education Scholarship
University of California School of Pharmacy

Sept 2007- May 2009

Rho Chi Academic Honor Society
University of California School of Pharmacy

Mar 2009

Who's Who Among Young Professionals
Cambridge, UK

May 2008

Phi Kappa Phi Honor Society
University of Southern California

Jan 2008

Charles W. Patrick Scholarship
San Diego City College
Awarded in recognition of service to the community

May 2007

Richard and Eloise Johnston Health Services Scholarship
San Diego Mesa college
Awarded in recognition of interest and potential as a Pharmacist

May 2007

Provost's Honors
University of California, San Diego
Awarded in recognition for nine quarters of GPA of 3.5 or higher

Jan 2000 –June 2003

CLINICAL EXPERIENCES

Pharmacist

June 2012- Present
Seattle, WA

Kelly Ross Pharmacy

- Optimized patient outcomes through drug utilization reviews using PharmaServ® computer systems
- Educated patients on appropriate drug usage through patient counseling sessions
- Ensured drug safety and quality through final verification via Pharmacy 2000™ computer systems

Cedars Sinai Medical Center

Nov 2010 - Mar 2011
Los Angeles, CA

Acute Care (Cardiology)/ Pediatrics/ Renal Transplantation

Preceptor Names: Daniel Park, Pharm. D., Grace So, Pharm. D., Ashley Vo, Pharm. D.

Level: Advanced

Type: Institutional / Clinical

- Experiential training at a 950 bed non-profit medical institution
- **Acute care (cardiology):** assisted interdisciplinary team in the medical management of decompensated heart failure, pre- and post-op heart transplant recipients
- **Pediatrics:** provided care to pediatrics general medicine and neonatal ICU patients
- **Renal transplantation:** provided care to pre- and post-op renal transplant recipients with training in IVIG-based desensitization protocol, induction and maintenance therapy, anti-infective prophylaxis, treatment of antibody and cellular

mediated rejection, and participation in pathology grand rounds

USC Norris Comprehensive Cancer Center

Sept 2010 - Nov 2010
Los Angeles, CA

Preceptor Name: Betty Chan, Pharm. D.

Level: Advanced

Type: Ambulatory Care / Clinical

- Experiential training at an oncology infusion and warfarin anticoagulation clinic. Duties included management of the anticoagulation needs of all patients referred to the clinic. Verification of chemotherapy orders, IV admixture preparation, patient consultation and education of chemotherapy regimen, drug administration and side effect management.

Kaiser Permanente Outpatient Pharmacy

Aug 2010 - Sept 2010
Downey, CA

Preceptor Name: Lily Do, Pharm. D.

Level: Advanced

Type: Outpatient

- Experiential training in patient consultation, extemporaneous compounding, medication therapy management, inventory control, prescription verification, and management.

Community Pharmacy Intern

Oct 2008- Sept 2010
Pasadena, CA

Rite-Aid Pharmacy

- Communicated with healthcare professionals and insurance companies to ensure accurate patient information, appropriate dosing and medication selection and coverage for optimal patient safety and care

- Entered patient data into computer system, prepared and dispensed products and medications accurately

- Provided customer service in a fast-paced environment

Children's Hospital Los Angeles

Oct 2007 - Oct 2007
Los Angeles, CA

Preceptor Name: Elsie Jalian, Pharm. D.

Level: Introductory

Type: Institutional / Clinical

- Experiential and Didactic training in the fundamentals of aseptic technique, TPN, IV and chemotherapy preparation chemotherapy protocol verification, unit dosing, compounding, order entry and checking, dosage calculations and drug interactions